

Special Reports  
on AFA's  
Annual Convention

NOVEMBER 1970 / 60c

# AIR FORCE

and **SPACE DIGEST**

The Magazine of Aerospace Power / Published by the Air Force Association

At right, F-15 fighters. "The F-15 . . . will have superior capability for close-in highly maneuverable combat. In short, it will provide the effective weapon system necessary to defeat any enemy fighter."

—Air Force Secretary Seamans  
at the AFA Convention



At left, B-1 bombers. "I believe we must and can maintain a bomber capability that is effective through the 1975 period and beyond. I believe [manned bombers] will be a key ingredient in our strategic force in the '80s."

—Defense Director of Research  
and Engineering John S. Foster, Jr.,  
at the AFA Convention



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A rocket-propelled strategic supersonic weapon system, SRAM can be delivered by either FB-111 or late model B-52 bombers. Its advanced technology enables it to penetrate sophisticated enemy countermeasures while launching aircraft remain well outside of defense perimeters.

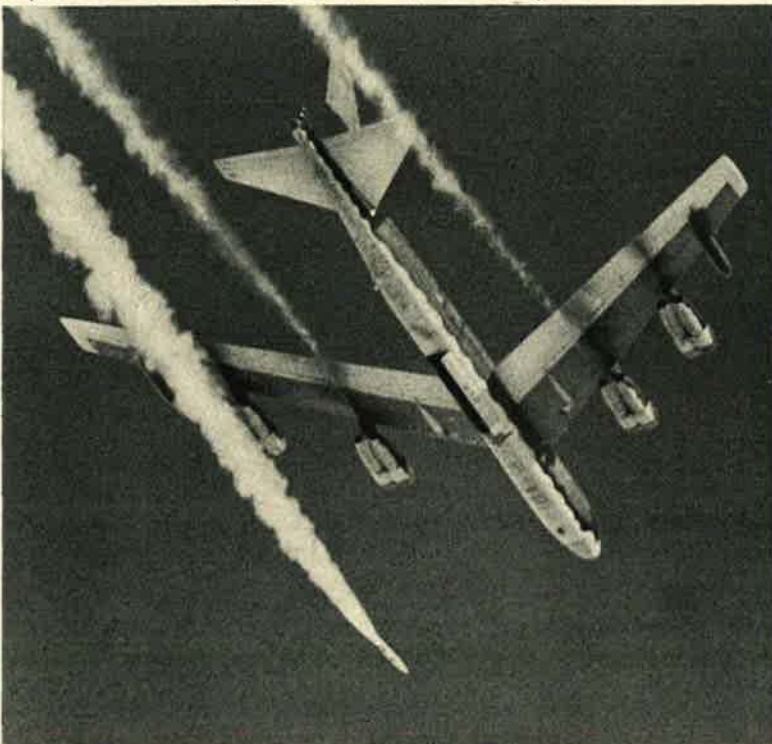
Boeing has total responsibility for design and development, test missile production, associated airborne equipment design; aerospace ground equipment, field support technical documentation and training equipment.

The program is being managed by the Aeronautical Systems Division of the Air Force Systems Command.

SRAM is the latest, most advanced in a long line of successful strategic weapon systems from Boeing.

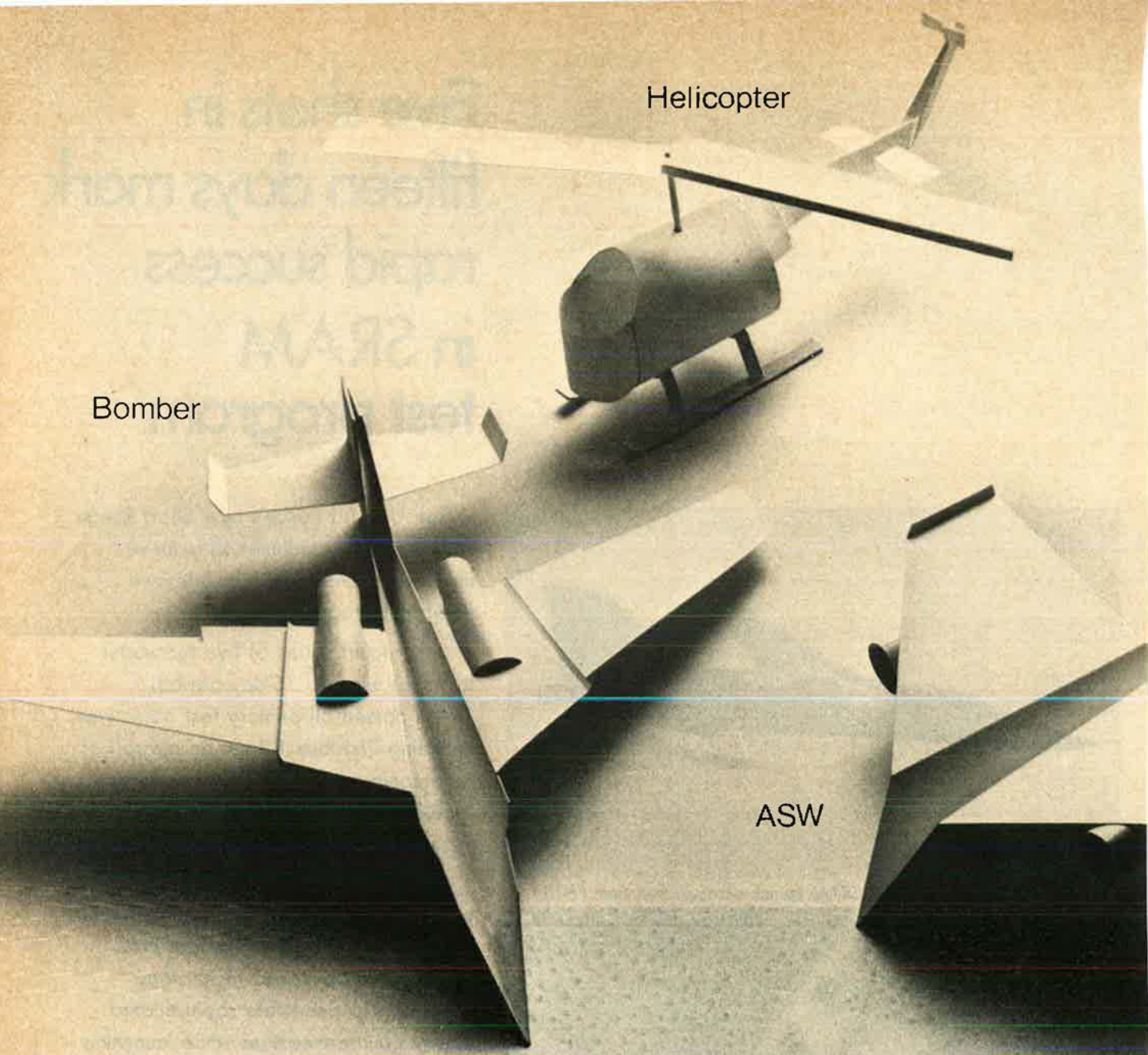


September 22: First supersonic SRAM launch accomplished from FB-111.



September 24: First all Air Force crew launches SRAM from B-52.

**BOEING**



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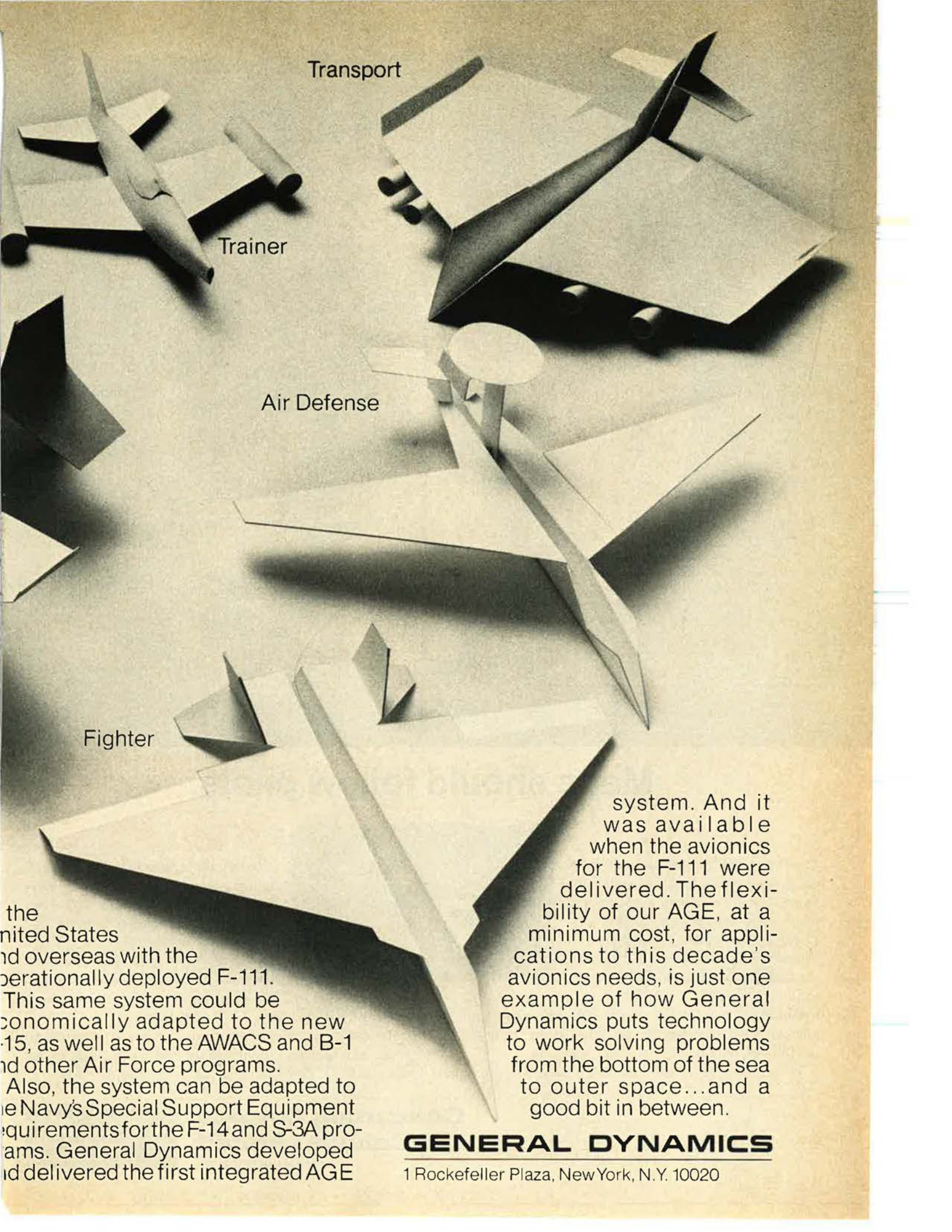
Granted each new aircraft has to be different for different needs. But does it make sense to have all of their support equipment different, too?

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So we designed and developed an AGE concept to solve these problems. Our AGE is the first automatic test equipment applicable to not just a single aircraft, but to an entire generation of future aircraft.

The reason for AGE's flexibility the system is made up of integrated test stations in highly flexible building block configurations. The system can be adapted to all advanced aircraft planned through the end of this decade.

Our AGE is currently in use at bases



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the United States and overseas with the operationally deployed F-111. This same system could be economically adapted to the new F-15, as well as to the AWACS and B-1 and other Air Force programs. Also, the system can be adapted to the Navy's Special Support Equipment requirements for the F-14 and S-3A programs. General Dynamics developed and delivered the first integrated AGE

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# AIR FORCE



## and SPACE DIGEST

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When LTV Aerospace Corporation selected our Electronics Systems Center to work on the program the assignment was clear: design, develop, and deliver an integrated navigation and weapon delivery system. A system that would help keep the A-7 one of the best close support and attack aircraft in the business.

## Building the team

First, we committed a top management and engineering team to make sure things would go right.

Then we worked with LTV to define the best sensor and display subsystem anywhere.

At the same time, we began to refine the key to our system—the digital computer—known to us as System/4 Pi.

We put it all together, ironed out the bugs, delivered it to LTV on schedule.

LTV took the system and flew it. For over 20,000 hours.

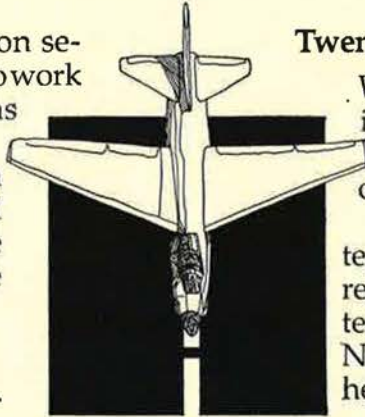
Our system not only met every performance specification, it set a new record for accuracy.

## Helping hand for the A-7

The A-7 now could claim to have tactical capabilities beyond those in any contemporary aircraft.

The key element in its special navigation/weapon delivery system is the IBM System/4 Pi tactical computer. By acting as a tactical coordinator, the System/4 Pi:

- Constantly computes the aircraft's position.
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- Solves the trajectory equations for the armament selected and the conditions of flight.
- And, in its spare time, performs self checks to make sure it's working properly.



## Twenty years of systems integration

We've been at this business of systems integration and computerized navigation/weapon delivery systems since our work on the B-52 twenty years ago.

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Some people say there's some kind of special talent to systems integration. Often true, but to us it's everyday business.

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System/4 Pi is more than one computer. It's a family. And it's ready to go to work in a wide range of applications where System/4 Pi's ability to expand without growing pains is especially important.

System/4 Pi's range from lightweight, compact computers for aircraft, satellites, and field equipment to multiprocessors for high-speed processing of large volumes of data.

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# The Air Force Association's 1970-71 Statement of Policy

Following is the complete text of the Air Force Association's 1970-71 Statement of Policy, as unanimously adopted on September 22, 1970, by delegates to AFA's twenty-fourth annual National Convention, meeting in Washington, D.C.

**T**HE fruits of a quarter century of American sacrifice in the name of peace and freedom hang in precarious balance.

Five years ago, the United States held a wide margin of strategic nuclear superiority over the Soviet Union. Today, the USSR has surpassed the United States both in number of strategic missiles and in missile-deliverable megatonnage, has preceded the US in deployment of an antiballistic missile defense system, has challenged American supremacy on the high seas, and has vastly improved the quality and global mobility of its general-purpose forces. The Soviet investment in military research and development has overtaken our own declining research and development budgets, and shows no sign of leveling off, much less of decreasing.

Once the US nuclear deterrent was regarded by both ally and adversary as the guarantor of the security of Western Europe and other areas of the Free World. Now, the umbrella of extended strategic deterrence that has protected ourselves, our friends, and our allies, is being quietly folded with little public notice or concern. Even the capacity to respond to a direct attack on the United States itself is losing its credibility. The danger of the United States becoming a second-class power is both clear and present.

This unprecedented shift in the balance of military power is a hard fact, not a guess or an uncertain extrapolation. Satellite observations, electronic intelligence, and other techniques verify beyond doubt the alarming growth of Soviet strategic striking power. Evidence is mounting that achievement of a first-strike capability is their ultimate goal.

As US nuclear strength, once clearly superior, steadily approaches insufficiency, an emboldened USSR tightens its grip on the Warsaw Pact nations, moves in force into the Mediterranean, assumes an increasingly dominant position in the Middle East, and expands its influence in North and East Africa, the Persian Gulf, the Indian Ocean area, and in Asia.

All this provides clear evidence that Soviet leaders are pursuing with new vigor their historic quest for world domination.

The aggressive expansionism of the USSR stands in strong contrast to trends in our own nation, trends supported by vocal and often influential individuals and groups. Increasingly, their refusal to recognize the existence of a genuine threat is eroding public concern over the security of the United States and the Free World. The need to solve America's internal problems is offered as a reason for withdrawing from world leadership and the responsibilities that go with it. Such a retreat from reality can only lead us, as it has in the past, to the ultimate disaster of global war.

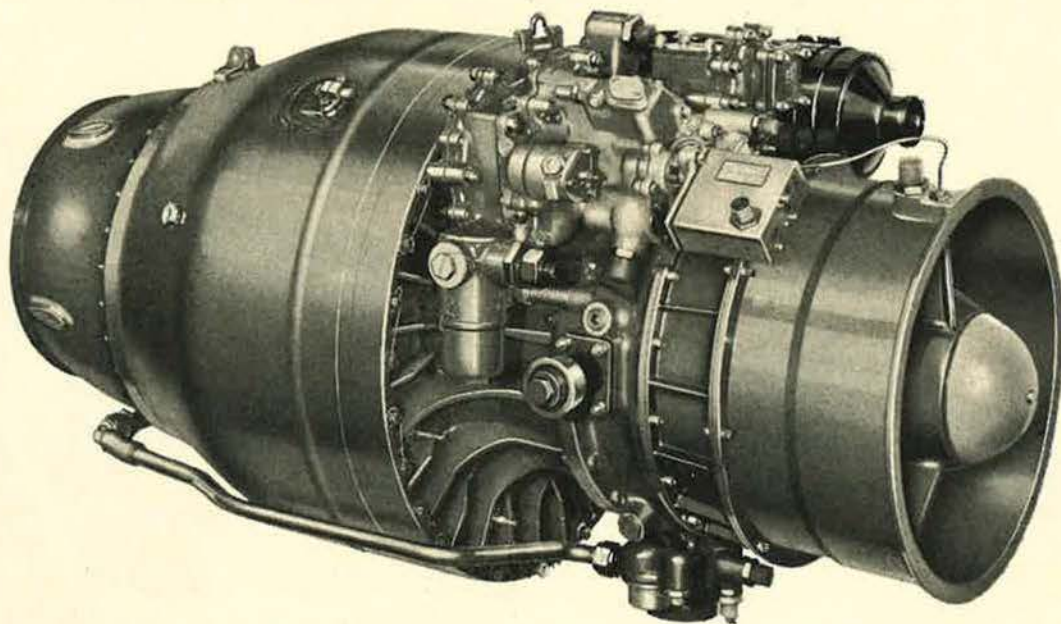
The members of the Air Force Association fully recognize the urgency of improving the quality of life in or own country. With that there can be no argument, nor can there be argument over the magnitude of the task. The evidence is constantly before our eyes, easier to see and understand than is the external threat.

But at best, a better life for all Americans cannot be attained on an island of freedom in an expanding sea of despotism. At worst, we face total engulfment by refusing to recognize the explosive growth, and the purpose, of the military power presently arrayed against us.

The Air Force Association urges our national leadership to disclose—fully, frankly, and publicly—the deteriorating defense posture of the United States as it relates to the expanding power of the Soviet Union. The American public's need to know must be the paramount consideration.

We believe that Americans—informed of the facts and given a clear statement of national strategy and objectives—will sacrifice as needed in order to maintain a world environment of security, freedom, and peace.—END

# the power behind the drone



It's our YJ69-T-406 turbojet engine used in the Air Force supersonic BQM-34F. Speed: Mach 1.1 at sea level, Mach 1.5 at 60,000 feet. If you visited us at the AFA Exhibit you probably remember that the T-406 is a growth version of the highly successful Teledyne CAE J69-T-29 that powers the tri-service subsonic BQM-34A.

Modifying and improving existing engines—making them grow—is one of Teledyne CAE's long suits. It's also one of the best ways to realize genuine economies and build dependable, reliable, low cost engines.

You may also remember a few more things from our AFA Exhibit. Like our power plants for special applications. One is our brand new 2700 lb. thrust J100 engine that was successfully tested at 84,000 feet in our altitude chamber.

Or Teledyne CAE's work in missile power. Our ATEGG technology is helping us develop reliable, high performance, low cost components for the SCAD engine.

Or the fact that Teledyne CAE is constantly looking forward to providing the necessary hardware to meet advanced military requirements. Like engines for Remotely Piloted Vehicles.

And one other thing. Don't forget that Teledyne CAE is the world's largest manufacturer of small turbojet engines for unmanned applications.

That says it all.

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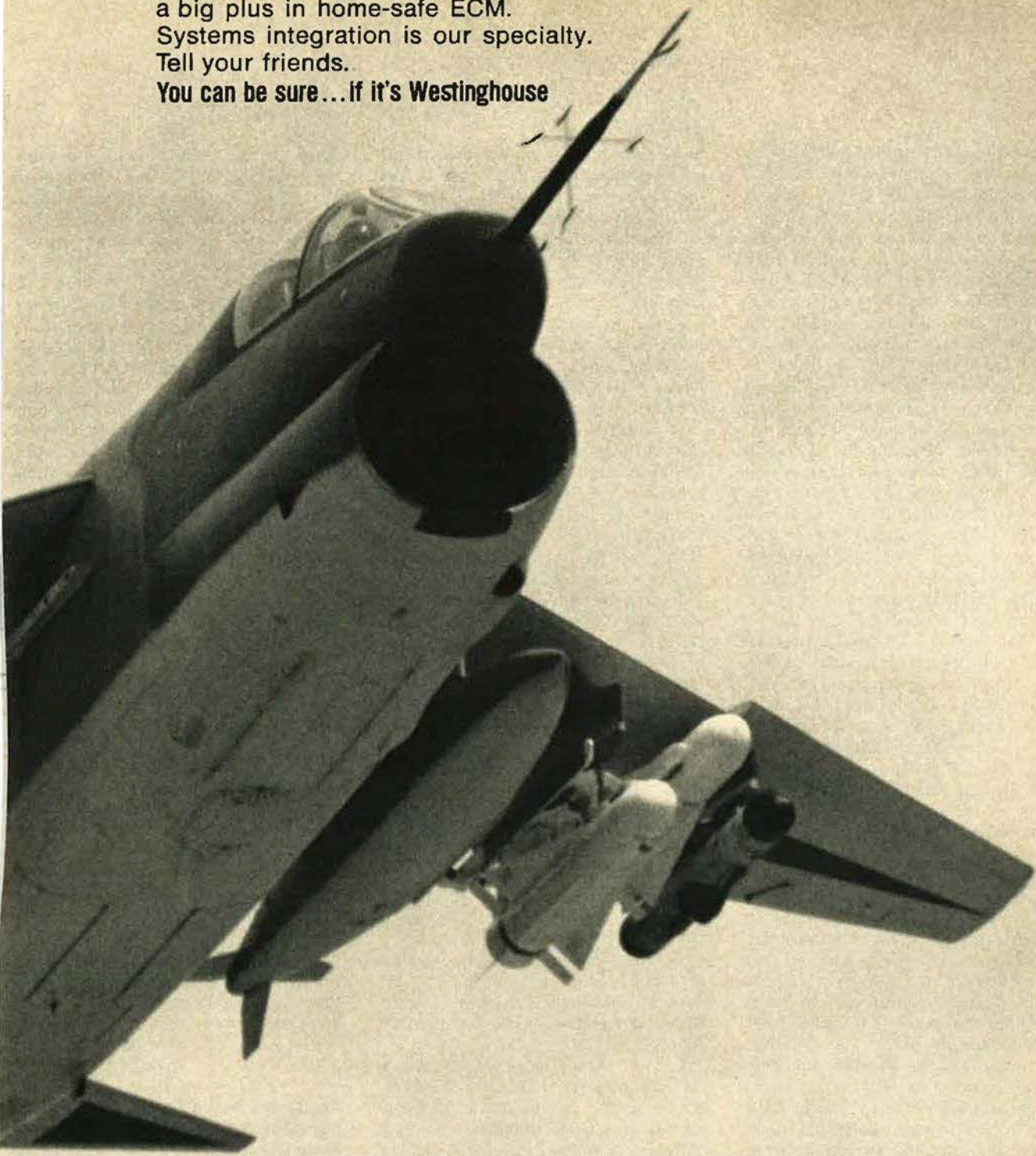
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a big plus in home-safe ECM.

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## Relevancy and Historical Doctrines

*Gentlemen:* I particularly enjoyed your September issue, for two authors addressed themselves to a crucial problem area of the United States military and, more specifically, the United States Air Force. John Loosbrock, in his editorial, "The Only Certainty Is Uncertainty," pointed out cogently the real necessity for the Air Force leadership to be receptive to ideas of younger officers, even though these ideas may subsume some basic criticism of current policy or doctrine. In a rapidly changing technological milieu, what may have been sound policy five or ten years ago may be irrelevant, dysfunctional, or unproductive today. Younger officers may be better able to identify the irrelevance because they are not committed to a specific policy and can, at times, view it more objectively than others. . . . Mr. Loosbrock's final quotation, by G. C. Lichtenberg, is worth repeating: "How do we spend our old age? In defending opinions, not because we believe them to be true, but simply because we once said they were."

As the educational level of our force rises dramatically, certain consequences are evident: a greater interest in ideas, an increasing commitment to analysis and thinking ahead, a sense of commitment to intellectual honesty, a desire to debate the important issues, and a greater interest in reading and research. The problem of alienation does not rest only in the ghettos and the campuses. It rests within the military profession in direct proportion to perceived irrelevancies and rigidities of policy and doctrine. It is important for all of us not only to be receptive to the bright young officers and enlisted men who have so much to say to us now and so much to contribute to the Air Force in the future.

Major MacIsaac approaches the same thesis from another vantage point in his article, "A New Look at Old Lessons." He points out that interpretive history can be most useful, even though it may be somewhat critical of certain past decisions, doctrine, or policy. Authors such as Verrier and Sallager enjoy the considerable advantage of hindsight; and when they criticize, as they must if they are

to be intellectually honest with themselves and their readers, they do so in an attempt to learn from the experience of others.

This critical approach is sometimes interpreted as vaguely subversive, an impugnation of a past leader's wisdom, or, at best, terribly unfair. It is essential to emphasize that interpretive histories can be most useful, for they can make the reader think. Even if the judgment of the author proves to be unsound and his hypotheses unsubstantiated, he has accomplished a great deal if he has encouraged the reader to reexamine beliefs and conventional wisdom and to think through the actions and doctrines of the past.

One of the great dangers to the nation is doctrinal and policy rigidity. The fundamental exercise of rethinking current policy in the light of changing conditions can be stimulated by a look at an earlier time when most of the data is in, and the author and reader can stand back and attempt to be objective about a certain issue, problem, campaign, or war.

It may be useful to remind ourselves of the English colonel in *The Bridge on the River Kwai*, who formulated the correct policy of building the bridge but failed to realize that, once the bridge was built, it was essential to fundamentally alter the policy and blow up the bridge. The gyroscopic effect of policy, the tendency of decision-makers to become wedded to a policy they help formulate, and the dysfunctional tendency toward doctrinal rigidity must be constantly guarded against.

I salute AIR FORCE/SPACE DIGEST for encouraging this kind of thinking. By doing so, you establish a fundamental objectivity which is an essential element of the best in responsible journalism.

MAJ. PERRY M. SMITH  
Springfield, Va.

## September Laurels

*Gentlemen:* The September 1970 issue of AIR FORCE/SPACE DIGEST was outstanding, even when measured against the customary excellence of the publication.

The editorial set the tone and set it well. Indeed, it was most timely to

score the apolitical nature, the unpredictability, and the generally underestimated momentum of technology. Also, it thoughtfully emphasized that all-too-often overlooked high quality of our military manpower. Their intelligence and modern training in many instances surpass the effectiveness of the equipment supplied them. One need not be a militarist to recognize talent, and one need not be a spendthrift to understand the necessity of investing enough resources so that the talent can be used to its maximum.

In this September issue, the "Air-mail" section merits special mention as it was so well filled with cogent comment.

Without referring in specifics to each of the ten superbly written articles dealing with the most recent quarter century of Air Force history, I suggest they all deserve reading and rereading. Sometimes explicit and at other times implied, there is throughout this historical recounting and analysis a warning that we risk underestimating the need for preparedness as a pathway toward peace, as a means of decreasing danger. This applies to both R&D and to the availability of the most advanced and ready weapon systems. Too, we risk much by assuming that potential enemies think as we do and hold similar objectives to ours.

As one studies the fluctuating fortunes of our military establishment . . . in conventional environment as well as in outer space . . . the parallelism with which political party holds the Executive Branch of the government seems more than coincidental.

EDWARD C. WELSH  
Arlington, Va.

## MacIsaac's New Look

*Gentlemen:* Maj. David MacIsaac, in his interesting article "A New Look at Old Lessons," in the September 1970 AIR FORCE/SPACE DIGEST, finds it necessary to emphasize that the Great Captains of World War II should not interpret recent scholarship as personal criticism.

I have always been somewhat puzzled by the defensiveness of our great airmen who participated in the strategic bombing offensive. It has always seemed to me that they had nothing to be ashamed of by admitting

that strategy and tactics had to be adjusted to the developing situation.

That concepts originally held eventually had to be changed in the crucible of combat is the very essence of successful command. This does not detract from—indeed, it made possible—the successful outcome.

Thoughtful men will long study and exercise their critical judgment on the bombing campaign. That is as it should be. That some of them will reach conclusions different in some aspects from the participants is always to be expected and indeed welcomed—and not least of all by those who made history by their courage and skill in the skies during the Second World War.

HERMAN S. WOLK  
Silver Spring, Md.

*Gentlemen:* I read the article entitled "A New Look at Old Lessons," by Maj. David MacIsaac, in the September issue, with amazement. . . .

I noticed that one person who was quoted [Stephen A. Ambrose, then Ernest J. King Professor of Maritime History at the Naval War College] mentioned the fact that German war production reached its peak in 1944. He used this fact as an argument that our strategic effort was ineffective. The quoted individual might ponder this question: At what level would German war production have been in 1944 and thereafter had our bombers *not* been ripping the guts out of critical strategic industries in Germany? He might also ask himself where the Luftwaffe would have been committed had it not been so desperately trying to defend the air over Germany. . . .

I recommend that the Air Force Academy invite Albert Speer, who was Hitler's Chief of War Production, to speak on the effects of strategic bombing. The cadets might as well get it from the horse's mouth.

After reading some of the hilarious quotes in the article, I had a deeper appreciation of the leaders—Generals Mitchell, Arnold, Spaatz, Eaker, LeMay, Twining, Anderson, *et al.*—in World War II and in the period before World War II—who fought and won several wars. One war was to advance the sound concept of strategic bombing against a formidable and entrenched military and civilian opposition, often at the cost of one's career. Another war was to keep intact a meager cadre of men and aircraft, around which to build an effective strike force. Another was to actually build that strike force. And another was to hit the critical targets deep in enemy territory. Few people realize how critical all of these wars were, how they were interrelated, and how

winning them depended upon sound leadership more than upon any other factor. Few people realize what a disaster would have been upon us had we had leaders of less vision, of less faith, and of less tenacity. Few people realize how close we came to that disaster during the early daylight raids over the continent. Sound leadership saved the day.

The bombers, as we knew them, are gone, so there is no point in getting lost in a sea of memories about them and about a war that is also gone. Many of the leaders, who were essential to victory in that war, are still here; and they are desperately needed in this hour of unprecedented national peril. *Let's listen to them.*

COL. JAMES E. NORWOOD,  
USAF (RET.)  
Waco, Tex.

#### First-Class Error

*Gentlemen:* You committed the supreme error when, in the caption of the picture appearing on page 41 ["Aerospace World"] of the September '70 issue, you identified Messrs. Meadows, Beck, and Harris as "third-class cadets."

As any "doolie" who has committed the same error will tell you, depending on our year of graduation, we may be cadets first-class, cadets second-class, cadets third-class, or even cadets fourth-class, but we are all **FIRST-CLASS CADETS!**

C/3C MICHAEL PAUL NISHIMUTA  
USAF Academy  
Colorado

#### Peaceful Aerial Offensive

*Gentlemen:* It is evident that our political leadership seeks a means of ending the undeclared Vietnam War honorably for the silent majority and yet not overly arouse the sincere element of the vocal minority. . . .

For the moment we will call this an—Air Forced Peace Proposal:

This concept involves the air delivery and distribution of massive quantities of paper over the major cities and target areas of North Vietnam. The objective would be to inundate enemy population centers with shredded paper to a depth of several feet. This would be done repeatedly until the enemy capitulated. Please note that:

1. The paper mess would have to be cleaned up. Otherwise, rain would create a soggy mess and incapacitate the drainage system. If there was no rain it would present a fire hazard.

2. Clean-up would require large labor brigades and prevent this labor force from contributing to their war effort. Mechanization of clean-up appears impractical. Disposition or re-

baling would require massive work efforts.

3. The continued presence of paper on streets, roofs, bushes, wires, etc., would soon become a frustrating symbol of the war and one that could not be ignored or put out of sight.

4. Internally in the United States, and internationally, we could not be accused of killing or hurting anyone. We would merely be "Demonstrating for Peace"—and far less violently and objectionably than the conspirators on the Left do in our own country.

5. During periods of enemy attempts to clean up, we could make supersonic night overflights and prevent tens of thousands of tired workers from getting a night's sleep. A relatively few aircraft could keep a large segment of the North Vietnamese population from getting rest. The pattern of labor all day with no rest at night would soon take its toll.

6. This, and other methods of harassment, offers our government an effective means of choking off the war. Further, it utilizes our existing military facilities—flight crews, aerial delivery systems, and supersonic aircraft.

We realize that we are talking about an awful lot of paper. But it is relatively dense when baled and quite light, fluffy, and voluminous when shredded. If North Vietnam thinks we are a "paper tiger" let's show them how offensive paper really is!

C. F. MARSCHNER  
J. J. FRERICKS  
Cocoa, Fla.

• *Paper we've got plenty of. A good source to start with would be the losing proposals in a major weapon system competition, killing two birds with one paper wad.*—THE EDITORS

#### Training Booklet

*Gentlemen:* Anyone with information concerning the availability of a copy of the "Triple Threat" booklet depicting the training activities of the 1st Troop Carrier Command at Laurinburg-Maxton AAF Base during 1945, please contact

JOHN SUITER  
P.O. Box 1797  
Delray Beach, Fla. 33444

#### Pat on the Back for Pat

*Gentlemen:* I wish to express the AFA Airmen Council's wholehearted enthusiasm for the outstanding job Miss Pat Muncy did in writing for the "Bulletin Board" in [the September and October issues of] AIR FORCE/SPACE DIGEST. We found her articles most en-

(Continued on following page)

lightening and interesting. Her cross-sectional treatment of AFA areas of interest stimulated a greater reader population. We hope that Pat will continue to communicate the pulse of AFA through more articles.

We also want to convey our deep appreciation to Pat for her outstanding work in arranging our briefings and meeting place [at AFA's twenty-fourth National Convention, September 21-24, 1970]. I attribute a great portion of the success of our meeting to Miss Muncy's expertise and dedication to AFA and our Council. Please extend our sincere thanks to Pat for a job well done.

CMSGT. JESUS MORADO, CHAIRMAN  
AFA Airmen Council  
Washington, D.C.

#### ALSIB Operation

*Gentlemen:* I am engaged in writing a history of the Alaska-Siberia operation of World War II, this being the ferrying of approximately 8,000 lend-lease aircraft from Great Falls, Mont., to Fairbanks, Alaska, by the Ferrying Division, Air Transport Command, USAAF. From Fairbanks, Russian pilots flew them to Siberia and the war fronts via Nome.

Would particularly like to hear from any veteran of the 7th Ferrying Group or the Alaskan Wing, ATC, as well as anyone else who was connected with the operation or who has information on it.

Any personal manuscripts or photographs will be well protected and returned to the sender after duplication, if permission for this is extended.

I am especially interested in flight operations, maintenance problems, search and rescue, survival experiences, and day-to-day life at the main bases and the smaller en-route bases. This includes not only the officers in key positions but also pilots, mechanics, operations personnel, truck drivers, and cooks.

DEANE R. BRANDON  
P.O. Box Q  
College, Alaska 99701

#### Busy B-17

*Gentlemen:* I have had numerous letters and phone calls from members of our organization calling my attention to a letter in your September issue from the former navigator of the B-17 *Possible Straight* of the 550th Squadron, 385th Bomb Group, Eighth Air Force, Mr. W. W. Varnedoe, Jr.

Mr. Varnedoe's letter came as a great shock to us because we were under the impression that the entire population of our United States plus fourteen foreign countries knew that

the Confederate Air Force Flying Museum, based at National Headquarters, Rebel Field, Harlingen, Tex., owns and operates a first-class flying B-17 Flying Fortress all dressed up in its old WW II battle dress.

Our B-17 bears the markings of the famed 305th Bombardment Group, Eighth Air Force, as a flying memorial, not only to this group, but to the courage, determination, and spirit of all American fighting men of WW II. (Sorry about that, Suh, the markings I mean, Mr. Varnedoe.) Due to its exceptionally busy schedule of flying in air shows and participation in static displays throughout the US, I doubt if our old warbird would have time to fly to England. It performed in all its old glory at our air show here at Rebel Field on October 25, 1970.

COL. JACK ALLERTON, CAF  
Harlingen, Tex.

• *We can't vouch for "the entire population of our United States" but WE, and our readers, are well aware of the CAF's impressive collection of old planes. However, we didn't think the CAF would be interested in volunteering its B-17 for a repaint job and a trip to England, hence the call for help.*—THE EDITORS

#### Togetherhness

*Gentlemen:* Re the letters of Captain Fronzaglia and Gar Pill in the October issue—with unabashed respect (well, awe, really) for all concerned, we of the Night Owls and Wolfs flew as such an integrated crew that there was no talk of "GIB Power" any more than there was of "A/C Power" or "Navigator Power." We were so together, in fact, that the "I" and the "we" of our memories are synonymous, interchangeable . . . as they are in my thoughts-while-thinking article, "Night Mission on the Ho Chi Minh Trail," in the August issue.

I agree with Gar Pill's multimission versatility statement. I also agree with Colonel Haynes' luxury point. Being a born and raised single-seater (though now well converted to two thrust-makers), I read the avionics of the A-7 and F-15 as satisfying our respective outlooks. . . .

I'll stand drinks for any combat back-seater, anytime, at Donkin's in LA.

MAJ. MARK BERENT  
Los Angeles, Calif.

#### Another Restoration

*Gentlemen:* This organization is presently restoring to flying condition a P-47N, its first assigned aircraft. Target completion date has been set for

1972, when the 156th Tac Fighter Group celebrates its twenty-fifth anniversary.

In order to attain our goal, we require assistance in obtaining aircraft and engine (R2800-73) technical manuals as well as the names and addresses of possible parts suppliers. Technical advice of any kind will also be most welcome.

MAJ. GABRIEL I. PENAGARICANO  
Project Officer  
Hq. 156th Tactical  
Fighter Group (PRANG)  
Muñiz Air National Guard Base  
Puerto Rico 00914

#### Pen Pals

*Gentlemen:* A lonely veteran of the 462d Bomb Group, Twentieth Air Force, which flew B-29s during World War II, would like to hear from other members of this group. Please address letters to

ACTION LINE  
Akron Beacon Journal  
Akron, Ohio 44309

#### UNIT REUNIONS

##### Sandy Reunion

The 2d annual Sandy Reunion will be held November 6-7, 1970, at the Menger Hotel, San Antonio, Tex. All members of the 602d Fighter Squadron, 602d Special Operations Squadron, and subsequent Sandys, Jolly Greens, Buffs, and rescued personnel are invited. Contact

Maj. Elmer E. Nelson  
AF/PMRG  
Randolph AFB, Tex. 78148  
Phone: Autovon 487-4666 or 5427

##### 311th Air Commandos

Attention: 311th Air Commando/Special Operations Squadron and Associates, the 19th, 309th, and 310th Squadrons. Group Headquarters plans a reunion at Hurlburt Air Patch, Fla., November 13-15, 1970. Those interested please contact

Maj. Kent Goldsmith  
21 Bens Lake  
Eglin AFB, Fla. 32542

or

Col. Harry G. Howton, USAF (Ret.)  
149 Ferry Rd.  
Fort Walton Beach, Fla. 32548

Phone: (904) 244-5076

##### 4750th Test Sqdn. (OPNL)

ADC's 4750th Test Squadron (OPNL) is planning a reunion of all officer personnel, to be held at the Air Defense Weapons Center, Tyndall AFB, Fla., December 4-5, 1970. All interested members (civilian and military) are asked to forward their names and addresses, as soon as possible, to

Capt. James P. Wyman  
Reunion Project Officer  
4750th Test Squadron  
Tyndall AFB, Fla. 32401



# CAINS IS ABLE

## **Kearfott's AN/ASN-90 inertial system confirms the Navy's CAINS alignment concept.**

We're talking about a Carrier Aircraft INertial System (CAINS) capable of alignment in 8 minutes or less that has a navigational accuracy of 1 nm/hr.

During a series of sea trials aboard the USS Kitty Hawk, the A-7E avionic system, which includes the ASN-90, conclusively demonstrated its ability to satisfy the requirements of the CAINS alignment concept. The history-making performance of this system provides the Navy with a CAINS compatible system, one that is now operational at the squadron level.

The USAF A-7D uses the same inertial system. It is capable of satisfying the navigation and weapon delivery system requirements of the A-7 and of the Air Force's more advanced interceptor and attack aircraft.

Kearfott's KT-70 gyro and platform technology that made CAINS practical is used on the Navy's P-3C (AN/ASN-84), the F-105 (AN/ASN-100) and on SRAM. And it is dressed in civilian clothes as the INS-60 for Lockheed's L-1011.

Write for more details to Singer-General Precision, Inc., Kearfott Division, 1150 McBride Avenue, Little Falls, N.J. 07424.

**SINGER**  
KEARFOTT DIVISION



**By Claude Witze**

SENIOR EDITOR, AIR FORCE MAGAZINE

## Can We Afford It?

WASHINGTON, D.C., OCT. 12  
 Defense Secretary Melvin R. Laird's Fiscal 1971 budget was passed by the House a few days ago, in an atmosphere that seemed to have some of the odors of a sickroom, one where the patient had taken a bad turn for the worse. It was not until yesterday, on a Sunday TV quiz program, that Mr. Laird had a good chance to speak up, and it is to his credit that he did not make an issue out of the fact that his "rock-bottom" estimate had been cut by a couple of billion dollars. That was hardly necessary, because the House, after making the cut, suddenly took a look at the Middle East, Cuba, our declining deterrent power, and Russian stridency. Told that we are spending \$50 million to bolster the Sixth Fleet in the Mediterranean at this moment, the House added \$150 million to its allocation for Operation and Maintenance. One Congressman said he thought \$50 million for costs connected with the Middle Eastern crisis is "an extreme amount of money." There was no other comment, and the proposal, offered on the floor by Chairman George H. Mahon of the Defense Appropriations Subcommittee, was adopted.

This week, the bill is headed into the Senate, where a few loud and persistent defense critics will have to contemplate the Nixon Administration's clear conviction that Moscow is not radiating sweetness and light, as Sen. J. William Fulbright would like to believe. Secretary Laird, backed by Secretary of State William P. Rogers, indicates now that there will have to be a "tremendous increase" in our defense spending unless there is quick progress in the upcoming Strategic Arms Limitation Talks (SALT).

On the House floor, the loudest alarm was sounded by Rep. L. Mendel Rivers, Chairman of the Armed Services Committee, who made a long speech on "The Soviet Threat," on September 28. The text has been reprinted in a thirty-three-page pamphlet (H.A.S.C. No. 91-70), which can be bought for twenty cents from the Superintendent of Documents, US Government Printing Office, Washington, D.C. 20402. Briefly, it says that our nuclear strategic margin has vanished and we no longer dare to threat-

en nuclear war to stop aggression, as President Kennedy was able to do in 1962, when Russian missiles appeared on Cuba.

Of particular interest to USAF, the Chairman said:

"As a matter of fact, while Congress is still debating the necessity for building an advanced manned strategic bomber, the B-1, we now know that the Soviet Union has already built such an aircraft, and it should be coming into their operational inventory at least three to four years before we can hope to have our B-1 operational.

"The circumstances of the B-1 bomber debate in this country illustrate the reasons why we seem hell-bent on national suicide. While we debate the question of maintaining our military capability, the Soviet Union quietly but openly forges ahead.

"It may be that the gap which has now been created in our defense capability can never be bridged. The Soviets have the bit in their teeth, and, make no mistake about it, are both capable and determined to maintain this newly developed superiority."

On October 8, the day the House acted on defense appropriations, Mr.

Rivers returned to the podium. This time he concentrated on the Soviet Navy, with a heavy assist from Vice Adm. Hyman G. Rickover. Nearly five pages of the *Congressional Record* for that date (H9835 to H9840) are filled with a Rickover letter on the substance of the deep-water threat. Mr. Rivers says, "The submarine is the best strategic weapon in the world" and emphasizes the great advantage Russia will have when its subs can operate out of bases in Cuba.

"Let us not beat around the bush with conjectures," Mr. Rivers proclaimed in the House. "I tell you the Russians are building a sub base in Cuba. And I challenge any official of the Executive Branch to issue an outright denial of that statement."

The Chairman then announced that he will introduce legislation in the next Congress—possibly calling for a crash program—to start a buildup of our own submarine force.

The public prints are reluctant to credit Mr. Rivers with any perspicacity in this area, but it is interesting to note some shifting in the editorial winds. The *New Republic*, of all publications, has printed an evaluation of the Russian threat, by Joseph Alsop, previously classified as a hawk with a typewriter. One of the editors of the *Washington Post*, a daily that usually gives huzzahs and cheers for the concept of parity instead of superiority, now recognizes the Kremlin's "newly acquired strategic might" and warns it is a threat to Western Europe. A member of the *New York Times* editorial staff only hopes that Soviet dreams of future power and domination prove unrealistic in the long run.

The nitty-gritty business of the Defense Appropriations Bill was taken care of by the committees headed in the House by Mr. Rivers and Mr. Mahon. When the bill got to the floor, an Administration request for \$68.8 billion had been cut to \$66.7 billion; procurement was down \$532.6 million; research and development cut by \$244 million. The funding for naval ships was up \$417.5 million. Funds for the Vietnamization program were increased \$58.5 million.

The Defense Appropriations Subcommittee turned in a 117-page report that recognized the Russian threat and said, "There is no room for American bungling in the field of defense."



**Congressman L. Mendel Rivers (D-S.C.), head of the House Armed Services Committee, is most outspoken in his warnings against our acceptance of Soviet Russia as the source of any lasting effort to keep the peace.**

It assailed inefficiency and mismanagement and included scores of quotations from the July report of the Blue Ribbon Defense Panel (see September '70, AF/SD, page 26).

The report acknowledged that there is no provision for more land-based ICBMs beyond the present force level of 1,054, adding, "If there is no arms-limitation agreement and the Soviet buildup continues, we must increase our strategic forces or be strategically outgunned." There are competent observers who believe we have about reached that point already, but the subcommittee seems to feel there is some leeway remaining:

"The overriding purpose of our strategic posture is political and defensive: to deny other countries the ability to impose their will on the United States and its allies under the weight of strategic military superiority. To have sufficiency of strategic power, we must have a force large and capable enough to be certain that all potential aggressors see unacceptable risk in contemplating a nuclear attack, or nuclear blackmail, on acts that could escalate to strategic nuclear war."

The subcommittee says it expects our forces to continue as a mix of missiles and bombers, with necessary support, "for as far into the future as we are presently planning."

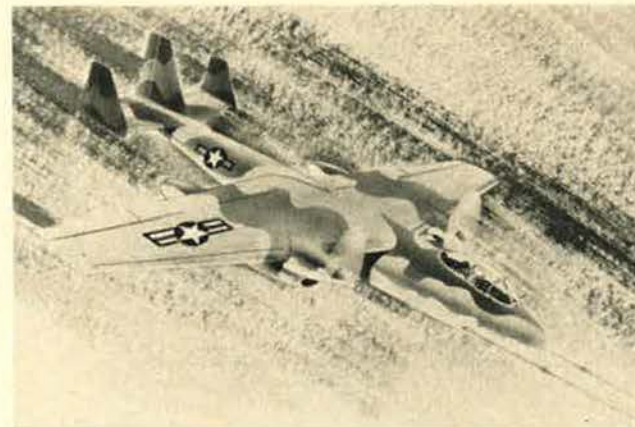
In presenting this on the floor of the House, Mr. Mahon argued that when we suffer indignities—such as the capture of the *Pueblo*, the Russian attempt to pick up debris from an early Poseidon firing, or the fuss in the Mediterranean area—"our lack of military might was not a factor." Mr. Rivers rose in something approaching rage. He suggested that Mr. Mahon should read his remarks carefully and, perhaps, change them before they appeared in the *Record*.

From the standpoint of the Air Force, an important section of the Appropriations Subcommittee report deals with the close-support mission. Mr. Mahon's group put up a blunt challenge to the concept that it should pay for the development of the Army AH-56 Cheyenne helicopter gunship, the Marine Corps AV-8A Harrier V/STOL fighter, and the USAF A-X close-support aircraft. The report says the subcommittee is familiar with the history of the close-support mission, of the Army-USAF conflicts on the issue, and the genesis of the Cheyenne project. It discloses that in September the Secretary of the Army declared "although both the Cheyenne and the A-X are intended to provide combat air support, they are complementary in that they have different flight characteristics which influence the degree



**House subcommittee calls on the Pentagon to make up its mind. Does it want the Army's AH-56A Cheyenne helicopter . . .**

**. . . or the British-built Marine Corps Harrier V/STOL to carry out the close air support mission, a job originally given to USAF?**



**Or is the USAF-proposed A-X the ideal aircraft? Congress now says the three projects must be reevaluated before real procurement can start.**

of suitability for specific missions."

The Army Secretary said he has discussed the problem with his USAF counterpart and, "There are some outstanding questions concerning operational utilization." The subcommittee says this is "a clear indication of the duplication existing between the A-X and the Cheyenne." With that understatement, the report goes on to comment that the Marines, already equipped with helicopters—the AH-1J Cobra gunship—now is testing the Harrier, which "would appear to duplicate the Cheyenne in the close air support role even more than the A-X does."

On the arithmetic of the situation, the subcommittee fixes the cost of a Cheyenne at \$3.55 million. The A-X, equipped for foul-weather missions, would come at close to \$3.5 million a copy. For the Harrier, if built in the United States instead of its home country, Great Britain, the tag is at least \$5.4 million. Bought in England,

which the subcommittee favors, it would cost \$3.4 million.

The upshot of all this discussion is that the Defense Department is "directed" by the subcommittee to re-evaluate the roles and missions before recommending any substantial procurement of a close-support aircraft. The report says the study effort should not be difficult, then turns on the heat:

"The close air support roles and missions problem has been studied and evaluated for years. Unfortunately, it has been beclouded with artificial issues, such as fixed wing vs. rotary wing, which are not germane, as well as too little attention given to the large number of extraordinarily fine attack aircraft in our military inventory, which can satisfy a portion of the close air support requirement. What is needed now is a resolution of the relevant issues, with full consideration of the need to provide our  
(Continued on following page)

ground forces with the most effective and timely close air support possible, followed by a determination of the optimum aircraft to meet this all-important requirement, whether it be fixed-wing V/STOL, rotary wing, or fixed-wing STOL."

The subcommittee demands a decision in time to use it on the Fiscal 1972 budget. Meanwhile, the three programs will be maintained.

Another cost area that drew specific attention was the Navy's program to modernize the fleet. Again, the subcommittee said money alone is not the answer. It pointed out that, since 1961, Congress has appropriated money for seventy-one new ships or conversions, only to have the Navy cancel the projects. Also, ships are

report is highly critical of Total Package Procurement:

"This method of contracting effectively commits the government to a contract for the production of a very expensive weapon system before the system has undergone the crucial design and development effort that major weapon systems require. When the research and development effort clearly indicates that financial, technical, or scheduling milestones will not be met, the government is not in sufficient control of the contract to amend it to the government's advantage."

During the floor debate, there was an effort, by Rep. Sidney R. Yates, of Illinois, to remove the item, but it failed. Mr. Yates called the money a "gratuitous donation" and suggested

FB-111. This was cut to \$50 million.

All efforts to change the bill in the House failed, except for Mr. Mahon's addition of money for operations and maintenance. In view of the news that poured in from the Middle East, a Cuban seaport, and the pages of *Pravda*, while the House prepared to vote, it is not surprising that Mr. Mahon prevailed. Just as Sputnik launched the United States into space, it now appears likely that the Soviet-missile-armed submarine and the SS-9 may move us again, if it is not too late.

### The Wayward Press (cont.)

In *The New Yorker* magazine of October 3, there is a long, and derisive, article about the National Guard, over the byline of a lady named Renata Adler. In it, she quotes one scornful opinion by "Paul Warnke, former Assistant Secretary of Defense for International Security Affairs." The man's name, correctly, is Paul C. Warnke, and the one job he had that would qualify him as a witness on Guard affairs was his former post as General Counsel to the Defense Department. He later became Assistant Secretary (ISA) but from that vantage point his observations on the National Guard would carry no special weight.

Miss Adler also quotes "Colonel Dan Henken, a public affairs officer of the Defense Department." He is not a colonel and never has been. Once he was a Chief Petty Officer in the Coast Guard and now is the Assistant Secretary of Defense for Public Affairs. His correct name is Daniel Z. Henkin.

In the *Washingtonian* magazine of October 1970, there is an essay titled "The Politician, Starring Hugh Scott," written by Julius Duschka, who is Director of the Washington Journalism Center. He writes, therein, of one "Kenneth DeLieu, a former staff member of the Senate Post Office Committee."

A call to the White House would confirm that the man's name is Kenneth E. BeLieu and that he never had anything to do with the Senate Post Office Committee. He is a former Undersecretary of the Navy and former Assistant Secretary of the Navy for Installations and Logistics. He also was the first staff director of the Senate Aeronautical and Space Sciences Committee and a staff member of the Senate Armed Services Committee.

Members and staff of the Washington Journalism Center can check such facts easily. Just dial 456-1414 and ask for Mr. BeLieu's office.—END

### Summary of USAF's Major Active Forces, Fiscal Years 1969-71

	Actual	Planned <sup>1</sup>	
	June 30, 1969	June 30, 1970	June 30, 1971
USAF tactical fighter and attack squadrons	90	86	84
USAF air defense interceptor squadrons	19	14	14
Strategic bomber squadrons <sup>2</sup>	40	33	33
ICBM launchers	1,054	1,054	1,054
USAF airlift squadrons	53	52	52
Aircraft inventory—active	14,406	13,338	13,352
Active-duty military personnel	862,062	809,627	783,520
Reserve Components personnel			
(paid drill training)	(128,340)	(137,591)	(134,710)
Air National Guard	83,414	88,646	87,110
Air Force Reserve	44,926	48,945	47,600

<sup>1</sup> Reflects the President's Fiscal Year 1971 budget.

<sup>2</sup> In Fiscal Year 1969, includes 4 squadron equivalents of B-52s not organized into units.

being delivered with empty spaces for missing equipment. Meanwhile, costs are going up. The word overrun is not used, but it is pointed out that the Navy could complete ten ships and ten conversions with funds that Congress intended to buy fourteen new ships and fifteen conversions. Cost estimates for nuclear attack carriers are far from reality. Since 1969, the Navy has needed about \$200 million a year to pay for claims and cost growth.

In this budget, the Air Force also has a \$200 million item. It is the much-discussed contingency fund to assure production of the Lockheed C-5A transport until USAF and the company resolve their differences about deficiencies. The subcommittee expects another \$200 million will be required in Fiscal 1972. Expressing concern about the final solution, the committee says the money is not to be obligated until the appropriations committees are briefed on the details.

Like the Blue Ribbon Panel, the

that the aircraft would come cheaper if the company were allowed to go into receivership. He won support, on a vote, from only ten Congressmen.

For USAF aircraft procurement, the House voted \$3.2 billion. This will wind up purchases of the F-111 and buy some helicopters, observation and training aircraft, and C-9A medical-evacuation aircraft, in addition to the C-5A effort. There is \$30 million for the proposed new international fighter, to help Free World allies meet the threat of the Soviet MIG-21.

On the missile side, a request for \$3.2 million to conduct a single demonstration launch from a Minuteman silo at Malmstrom AFB, Mont., to the Pacific was denied. The report held that the public beneath the flight path will not like it and the cost does not justify the purpose—which is to convince that same public that the missiles are reliable.

USAF also sought \$99.5 million for a production run of the SRAM, armament planned for the B-52 and

# 1200 RPM engines.

## The myth.

You've probably heard it so often it's beginning to sound like one of those great irrefutable truths. More engine speed means more wear. Or: 1200 RPM engines wear out faster than 900 RPM engines. Logical? Twenty years ago, maybe. Today, no.

## The truth.

Today's 1200 RPM diesel engines deliver more power with less bulk and weight—with greater reliability and longer life—than 900 RPM engines. It's as simple as that. And as true.

### Here's why

Twenty years of development are behind the Caterpillar 6.25" bore, 1200 RPM family of heavy-duty diesel electric sets. And there's a lot to show for it.

Like turbocharging and aftercooling for more efficient combustion and greater power output. Like the precombustion chamber design and capsule-type injector nozzles in a reliable, completely adjustment-free fuel system. And steel-backed aluminum bearings for high load carrying ability and exceptional strength.

We could go on and on, for every part, for every component. But the story would still be the same: Caterpillar-built 1200 RPM diesels deliver outstanding dependability over exceptionally long lives.

But don't take our word for it.

### NASA proved it

NASA's Apollo and satellite tracking stations—from Antigua to Madagascar—rely on Caterpillar-built 1200 RPM diesel electric sets for prime power. A recent survey compiled with the assistance of NASA's Goddard Space Flight Center revealed some interesting facts about these electric sets.

The Cat Engines were consistent in providing five years or more service without overhaul. A number of engines operated for 20,000 hours or more—still without overhaul. And the remainder of the electric sets were expected to deliver the same service.

### Jet Propulsion Laboratory proved it, too

Jet Propulsion Laboratory's Pioneer and Mars worldwide network of tracking stations have used Cat Electric Sets for prime power during every Apollo mission. Tracking antennae, computers and communication link-ups with the space craft are all powered by the 1200 RPM units.

### Conclusion

It's simple, really. Modern turbocharged 1200 RPM diesels are built better, last longer and run cheaper. Three good reasons why DOD prime generator programs should look into them.

If you'd like more information on Caterpillar's family of 6.25" bore, 1200 RPM diesel electric sets—ranging from the V-16 D399 to the inline six-cylinder D353—just drop us a line at: Caterpillar Tractor Co., Defense Products Division, Dept. 132, Peoria, Illinois 61602.



Caterpillar, Cat and  are Trademarks of Caterpillar Tractor Co.



By **William P. Schlitz**  
NEWS EDITOR, AIR FORCE MAGAZINE

WASHINGTON, D.C., OCT. 12

It must have been one of the quickest recoveries in air-war history. Just fifty-six minutes after he ejected from his stricken F-105 over northern South Vietnam, Capt. John W. Newhouse of Rowayton, Conn., was rescued by helicopter.

And "rescued" is the right word, since at the time "the pilot was bogged down in mud up to his waist, and it was necessary to utilize a hoist to get him out," said Capt. John O. Lindgren, commander of the HH-53 Super Jolly Green Giant that carried out the save.

The HH-53, from the 37th Aerospace Rescue and Recovery Squadron at Da Nang Airfield, was airborne at the time of Captain Newhouse's bailout and flew to his assistance.

With the help of a pararescueman, the hoist, and the copilot of an Army observation helicopter that had been first at the scene, Captain Newhouse was extracted from the mud and his entangled parachute, to be flown to safety and a hot shower.



—Wide World Photos

President Nixon trades a dollar bill for a calendar on construction of the Air Force Museum, Wright-Patterson AFB, Ohio. Enjoying his remarks are, from left, USAF MSgt. J. Huffman, Army Sgt. T. Minor, and Ohio Rep. C. J. Brown, Jr.



—Wide World Photos

Air Force Capt. Tommie Sue Smith successfully challenged an Air Force regulation forbidding female officers to have their children under eighteen living with them. A divorcee, she'll take her son, Miller, with her when transferred to the Philippine Islands.

It was the 590th combat save chalked up by the 37th ARRS.



In late September, some seventy-five F-100s returned from Vietnam to England AFB, La. The aircraft belonged to the 31st Tactical Fighter Wing and had been serving at Tuy Hoa AB, which is being turned over to the US Army. The wing's return reduced USAF personnel in Vietnam by 2,900.

The individual units involved—the 416th, 306th, 308th, and 309th Tactical Fighter Squadrons—will be reorganized into the 4403d Tactical Fighter Wing, and become host unit at England. The 31st TFW headquarters will return to Homestead AFB, Fla., where it was before moving to SEA in the fall of 1966.

A fifth squadron of the wing was inactivated in Vietnam. Its eighteen F-100s will be turned over to the Ohio Air National Guard.

During the 31st TFW's stay in Vietnam, its pilots flew almost 125,000 combat sorties in their F-100 Super-

sabres and were awarded a total of twenty-three Silver Stars, 211 Distinguished Flying Crosses, 2,428 Air Medals, and thirteen Purple Hearts.



Changes were recently announced in two key USAF-related administrative slots. Richard J. Borda was named by President Nixon to be Assistant Secretary of the Air Force for Manpower and Reserve Affairs. He is to succeed Acting Assistant Secretary James P. Goode, who has served since Dr. Curtis Tarr departed earlier this year to replace Gen. Lewis Hershey as Director of the Selective Service System.

Mr. Borda's appointment comes at a crucial time, with the Air Force making plans to revamp its entire personnel structure. The annual worldwide USAF Personnel Conference was held at Randolph AFB, Tex., in September, and on the agenda were such matters as force strength readjustments, the WAF program, officer and airman management, training and education policies, Reserve affairs, and

other related factors. When implemented, the changes will affect Air Force personnel (and their dependents) throughout the service.

Mr. Borda served on active duty in the US Marine Corps 1953-1955 and is currently a lieutenant colonel in the Marine Corps Reserve.

Dr. James W. Mar, professor of aeronautics and astronautics at the Massachusetts Institute of Technology, has succeeded John J. Welch, Jr., as Chief Scientist of the Air Force. Mr. Welch will return to LTV Corp., Dallas, Tex.

Dr. Mar's one-year appointment became effective in mid-September. As Chief Scientist of USAF, he will provide technical and scientific advice to the Chief of Staff on Air Force plans, programs, and requirements.

Before assuming his new post, Dr. Mar was a consultant to the Secretary of the Air Force in evaluation of Air Force structural-integrity programs, with special studies relating to the F-111, C-5A, F-15, B-1, F-4, and F-5 aircraft. He has also worked as a private consultant with companies in the aerospace industry.



The Defense Department announced that work would go forward on the Heavy Lift Helicopter—the first new US military helicopter development to win approval in the last five years.

Requests for proposals (RFPs) would be released shortly, DoD said, adding that, to allow assessment of competing designs, initial development would proceed with more than one contractor working on parallel efforts.

The Heavy Lift Helicopter is to have a maximum lift capability of more than twenty-five tons—more than twice that of any US helicopter.

The new helicopter will serve the Army and Navy, both of which initially had separate design requirements.

The Army will have development responsibility, with the Navy participating.



Slowly but surely the movement toward US-European partnership in space research and development is proceeding. The latest milestone was the September meeting of Eurospace in Venice. Eurospace is an association of European technical companies and financial institutions which have banded together, along with several US aerospace firms, to press for increased attention to the potential of space technology and for international cooperation in the field.

While Eurospace is not an intergov-



—Wide World Photos

**Capt. Eddie V. Rickenbacker, a veteran of more than a half-century of aviation, celebrated his eightieth birthday on October 8. Here he holds a model of a World War I Spad fighter.**

ernmental organization, its meetings provide a forum for both industry and governments to exchange ideas and develop action programs. The organization has sponsored four international meetings thus far, designed to bring together American and European space-industry and governmental representatives to explore US-European space partnership. This year, at Venice, Canada and Australia were represented by official observers for the first time.

The 1970 Eurospace meeting came on the heels of several events that promised greater hope of US-European space cooperation. For one thing, the various European governments had finally gotten together and decided to merge several existing intergovernment space-research organizations into a single "European NASA." The new organization is targeted for operation in early 1971 with a membership of perhaps fourteen countries. The plan is for a budget cycle of eight years with contributions from members to be based on their gross national products. Associate memberships for countries outside Europe are being planned.

Also, America's NASA had already invited European governments to take part in the post-Apollo program for development of space stations, shuttles, and the space tug. These programs would run into several billion dollars. If Europe wants to take part, the hope is that she could participate to the tune of about fifteen percent of the cost.

Another important trend colored

the Eurospace meeting. The European governments had decided to move away from preoccupation with scientific satellites and get more deeply involved in the field of application satellites, including satellites for communications, air traffic control, weather observation, among others. In this connection, plans were already afoot to organize a European communication satellite network—Eurosat—to augment and link up with the existing Communications Satellite Corp. (Comsat) system to which US and European powers already belong.

Against this background, the Venice Eurospace meeting heard a battery of US and European government and industry speakers. The US representatives gave detailed presentations of US government views and plans. They made clear the strong US desire for European participation in the space-shuttle program, with particular reference to the space tug for orbit-to-orbit missions.



A European newspaper claimed in October that Israel has test-flown the prototype of its first supersonic combat aircraft.

*France Soir* said that the aircraft, which was built secretly by the Israelis, resembles the Mirage fighter that has been blocked from shipment to Israel by the French arms embargo. It is said to be equipped with a GE J79-E-17 jet engine, the same powerplant aboard the US F-4 Phantoms bought by Israel.

*France Soir*, which did not name a source for the report, said that the new aircraft will be manufactured in Israel to replace the fifty Mirages undelivered because of the embargo. In Washington, a spokesman for the Israeli embassy refused either to confirm or deny the report.



In September, NATO's AIRSOUTH (Allied Air Forces, Southern Europe) held its first tactical weapons meet at the air base at Istrana, Italy.

The event was attended by the five nations that comprise AIRSOUTH as well as representatives from Allied Forces, Northern Europe and Central Europe. AIRSOUTH membership includes Italy, Turkey, Greece, the United Kingdom, and the US.

Competing in the contest—called "Best Hit"—were teams from the Fifth Allied Tactical Air Force, headquartered at Vicenza, Italy, the Sixth Allied Tactical Air Force at Izmir, Turkey, and the United States Air Forces in Europe, Wiesbaden, Germany. In all, ten nations participated.

(Continued on following page)



**On schedule, the first of forty-six Swedish SAAB 35 Draken aircraft ordered by the Danish Air Force was delivered September 1. The Drakens will consist of fighter-bombers, fighter/recece aircraft, and two-seat trainer versions.**



**At the Farnborough Air Show in England appeared this Hawker Siddeley Harrier V/STOL fighter, shown for the first time with markings of the US Marine Corps.**

Following familiarization flying, the teams, flying F-100 and G-91 jet fighters, competed in dive and skip bombing, rocketry, strafing, and navigation.



The Strategic Air Command is set to conduct its annual Aircraft Combat Competition at McCoy AFB, Fla., November 15-20.

SAC bomber and tanker units will compete in what is called "the world series of bombing and navigation." Participants will include three RAF Vulcan bombers and, for the first time, USAF FB-111 entrants. In all, about fifty-eight crews will take part in the contest.

The combined total of bombing and navigation points for a bomber and

tanker unit will determine the winner of the Fairchild Trophy. The tanker unit scoring the most points in navigation will be awarded the Saunders Trophy.

AFA is sponsoring a new trophy this year, to go to the bomber unit accumulating the most combined points in bombing and navigation.

All bombing during the competition is simulated via the transmission of a radar-scored impulse called a "bomb tone" rather than by dropping dummy bombs.



Retired Air Force Maj. Gen. St. Clair (Bill) Streett, pioneer pilot and one of World War II's flying generals, died September 28 at Andrews AFB, Md., after a long illness. He was 76.

General Streett enlisted in the Army Signal Corps in 1916 and, after serving in France as a pilot during World War I, led the historic 1920 round-trip flight from New York City to Nome, Alaska.

During World War II, General Streett, a close friend and associate of Gen. H. H. "Hap" Arnold, commanded the US-based Second and Third Air Forces and the thirteenth Air Force in the South Pacific.

At the time of his retirement in 1952 he was Deputy Commander of the Air Materiel Command, Wright-Patterson AFB, Ohio.



Hindsight suggests that the widespread hijacking of commercial airliners for political purposes was inevitable. They made such easy targets.

Now, however, stronger measures are being taken to curtail skyjacking. Many airports around the world are beefing up their preflight security, as-

**Crewmen emerge from ninety-day confinement in a space simulator to find Apollo-11's Neil Armstrong (top left), a surprise visitor at McDonnell Douglas Astronautics Co., Huntington Beach, Calif. Crewmen, from bottom: John H. Hall, Terry Donton, Stephen G. Dennis, and Wilson Wong. Behind are Walter Burke (left), MDAC president, and Albin O. Pearson, space agency program manager.**





Retired USAF Lt. Gen. Benjamin O. Davis, Jr., was recently appointed to coordinate the government's multiple efforts in curbing aircraft hijacking. At a news conference he described the methods that will be used to foil hijack attempts.



—Wide World Photos

signing more personnel to the task, and pushing installation of electronic search equipment.

The seriousness with which the skyjacking phenomenon is being regarded was reflected recently in the Presidential appointment of retired USAF Lt. Gen. Benjamin O. Davis to direct the Department of Transportation's civil aviation security. He'll oversee the force of armed guards aboard US airliners as well as coordinate governmental antihijacking activities through the FAA's newly created Office of Air Transportation Security.

General Davis recently left his post as Director of Public Safety for Cleveland following a rumored dispute with Mayor Carl Stokes over General Davis' hard-line policies in the effort to deal with civil disturbances.

In an event related to the skyjacking

problem, the House voted and sent to the Senate a bill that would generate \$92 million in higher air passenger taxes to pay for the air-marshall corps. It is planned that this force will eventually number 2,500 men. Rep. Wilbur Mills (D-Ark.), chairman of the House Ways and Means Committee, said that, through the increase, twenty-one cents would be added to the price of an average ticket.

A program is being developed to recruit air marshals and train them in antihijacking procedures.

The Transportation Department's Award for Extraordinary Service has been given to the four-man Trans World Airlines flight crew that overpowered an armed gunman at Dulles International Airport during a bizarre eight-hour hijacking ordeal last June. The recipients: Captain Dale Hupe,

who has recovered from gunshot wounds received during the affair, Captain Billy N. Williams, First Officer Donald Salmonson, and Flight Engineer James Hankins. Earlier, a similar award went to Robert E. Denisco, the Brink's security guard who shot a would-be hijacker in September aboard an airliner in San Francisco.

There has been some talk of an extreme step to stop skyjacking: completely sealing off from passengers the airliner's flight decks with bullet- and soundproof bulkheads.

This might yet prove necessary—depending on the effectiveness of the air-marshall program and potentially more-sophisticated hijacker techniques.



Another milestone in development of the Air Force's F-15 air-superiority fighter was reached on September 30 when a contract was awarded for the aircraft's radar.

The radar is to be a lightweight, advanced design of high reliability and optimized for one-man operation. It will provide long-range detection and tracking of small, high-speed targets, operating at all altitudes down to treetop level. Also, the radar will feed tracking information to a central computer for effective firing of the aircraft's missiles or its 20-mm gun.

In dogfight situations, the radar will automatically acquire the target on the head-up display, freeing the pilot from this task.

Hughes Aircraft Co., Culver City, Calif., won the fixed-price incentive contract of \$82,671,747 to cover design, development, and Category 1 test hardware of the radar. Hughes will be working closely with McDonnell Douglas Corp., the F-15's prime contractor.

Hughes edged out Westinghouse Electric Corp. to win the contract, fol-

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On October 2, the USAF Special Operations Force, Hurlburt Field, Fla., took possession of the new UH-1N Bell "Twin Huey." It is the first operational unit in the Air Force to have the helicopter.



Following a flight-test program of the companies' radars in WB-66 test-bed aircraft at McDonnell facilities in St. Louis during July and August.



Gen. James Ferguson, recently retired commander of the Air Force Systems Command, has been named a vice president of United Aircraft Corp., East Hartford, Conn. He will serve as an aide to Arthur E. Smith, United's president, in the development and administration of the corporation's divisions and subsidiaries.

General Ferguson, a pilot since 1937, served nearly thirty-six years in the armed forces. In his last assignment, at AFSC headquarters, Andrews AFB, Md., he was responsible for research, development testing, procurement, and production of all new USAF weapon and space systems. He served in that post for four years, following an assignment as Deputy Chief of Staff for Research and Development at USAF headquarters in the Pentagon. At AFSC, he succeeded Gen. Bernard A. Schriever, who retired in 1966.

In his military career, General Ferguson commanded the 405th Fighter-Bomber Group and led preinvasion attacks on Europe, starting in 1943. He was assistant chief of staff of the 19th Tactical Air Command during the Normandy invasion and the campaigns that followed. During the Korean War he became vice commander of the Fifth Air Force and was credited with the development of improved air tactics in that theater.

General Ferguson served about fifteen years in the Washington, D.C., area before his retirement last September 1. He was Director of Requirements at USAF headquarters and later vice commander of the old Air Research and Development Command, predecessor of the Air Force Systems Command.

The son of British parents, he became a naturalized US citizen in California in 1930, four years before he

enlisted in the Army Air Corps to earn his wings and his commission.



Denver, Colo., is applying advanced technology to a problem of considerable concern—the city's plague of beetles.

The bugs are threatening Denver's stately elms with the Dutch elm disease they spread, and so the city fathers have teamed up with the military and the University of Denver to save the trees.

A special infrared film is used in aerial photographs of the city. The 405th Military Intelligence Detachment, a US Army Reserve unit there, then interprets the photos to determine which of the trees are dead or dying, since they show up in red, brown, or blue on the color prints.

Since the pesky beetles lay their eggs only in dead trees, the object is to stem the tide of beetles by removing and destroying the dead and dying trees.

Under prevailing conditions, a ground survey of the trees would be impractical.



NEWS NOTES—An F-111 returning to Carswell AFB, Tex., October 7, crashed after experiencing an explosion. The two pilots, Lt. Col. Robert S. Montgomery, Jr., and Lt. Col. Charles G. Robinson, were killed. An investigation was ordered.

Fuji Heavy Industries, Ltd., of Japan will assemble and market under license Teledyne Ryan Aeronautical's Firebee jet-powered target drones, the first time the drones will be built outside the continental US.

USAF's Gen. Jack Merrell, Commander of the Air Force Logistics Command, Wright-Patterson AFB, Ohio, has been elected a member of the Executive Committee of the Aviation Hall of Fame.

Maj. Gen. Chesley G. Peterson, USAF (Ret.), of Salmon, Idaho, was recently elected President of the

American Eagle Squadron Association, which recently observed the thirtieth anniversary of formation of the first squadron of American pilots in the Royal Air Force at the beginning of World War II.

## SENIOR STAFF CHANGES

Mr. William P. Bass, from Plans and Requirements Officer, GS-15, to Asst. for Management, Grade GS-16, AFETR, AFSC, Patrick AFB, Fla. . . . B/G Cleo M. Bishop, from Dep. Cmdr., 5th ATAF, Vicenza, Italy, to Asst. DCS/Ops, Hq. TAC, Langley AFB, Va. . . . Dr. Harry M. Hughes, from Senior Scientist, to Research Director (Biometrics), USAF School of Aerospace Medicine, Aerospace Medical Division, AFSC, Brooks AFB, Tex. . . . Dr. Robert Kahal, from P.L. 313 position of Dir., SHAPE Technical Center, The Hague, Netherlands, to P.L. 313 position, Scientific Adviser, Office of Space Systems, OSAF, Washington, D.C. . . . M/G James F. Kirkendall, from Dep. Cmdr., 7th AF/13th AF, PACAF, Udorn Airfield, Thailand, to Cmdt., Armed Forces Staff College, Norfolk, Va. . . . Dr. Bernard H. List, from Dir. of Systems and Information Sciences Laboratory, Texas Instruments Incorporated, Dallas, Tex., to P.L. 313 position of Chief Scientist, AF Avionics Laboratory, AFSC, Wright-Patterson AFB, Ohio, replacing Mr. Raymond J. Nordlund.

Dr. James Wah Mar, from Professor of Aeronautics and Astronautics, Massachusetts Institute of Technology, Cambridge, Mass., to P.L. 313 position of Chief Scientist, OCS, Hq. USAF . . . B/G Douglas T. Nelson, from Dep. Systems Program Dir., B-1, to Systems Program Dir., B-1, ASD, AFSC, Wright-Patterson AFB, Ohio . . . Mr. Raymond J. Nordlund, from P.L. 313 position of Chief Scientist, AF Avionics Laboratory, to P.L. 313 position of Asst. Dir. for Laboratory Capabilities, AFSC, Wright-Patterson AFB, Ohio . . . Mr. Conrad P. Peterson, from Dir., Ops Systems Div., GS-16, OASD (Comptroller), Washington, D.C., to Dep. Asst. Comptroller for Accounting and Finance, GS-17 Office, Comptroller of the AF, Washington, D.C. . . . Dr. Carroll L. Zimmerman, from Program Mgr., Military Concepts, Autonetics Div., North American Rockwell, Anaheim, Calif., to P.L. 313 position of Asst. for Special Studies, Office of the Chief, Ops Analysis, Hq. USAF.

RETIREMENTS: B/G Coleman O. Williams, Jr.—END

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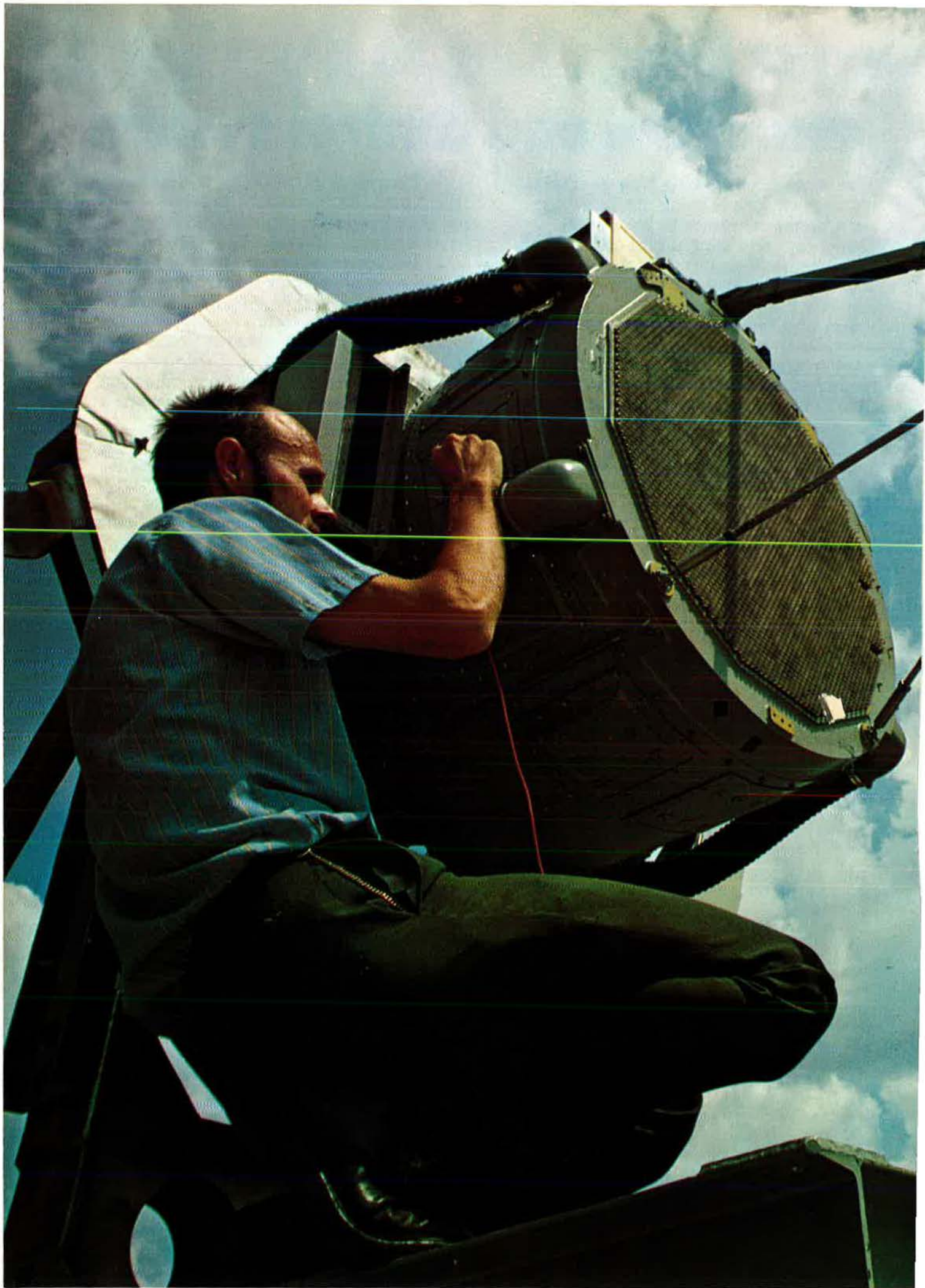
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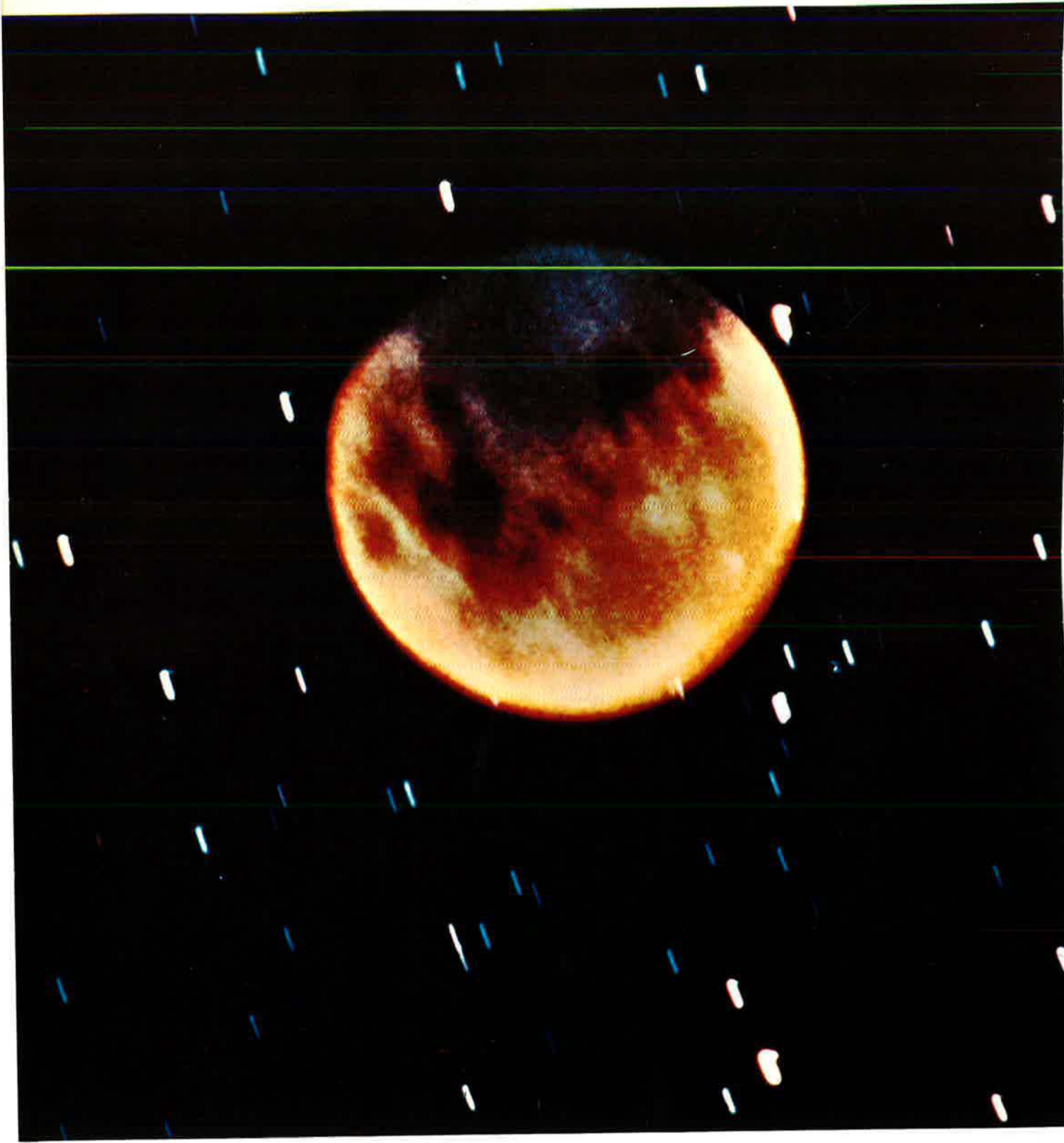
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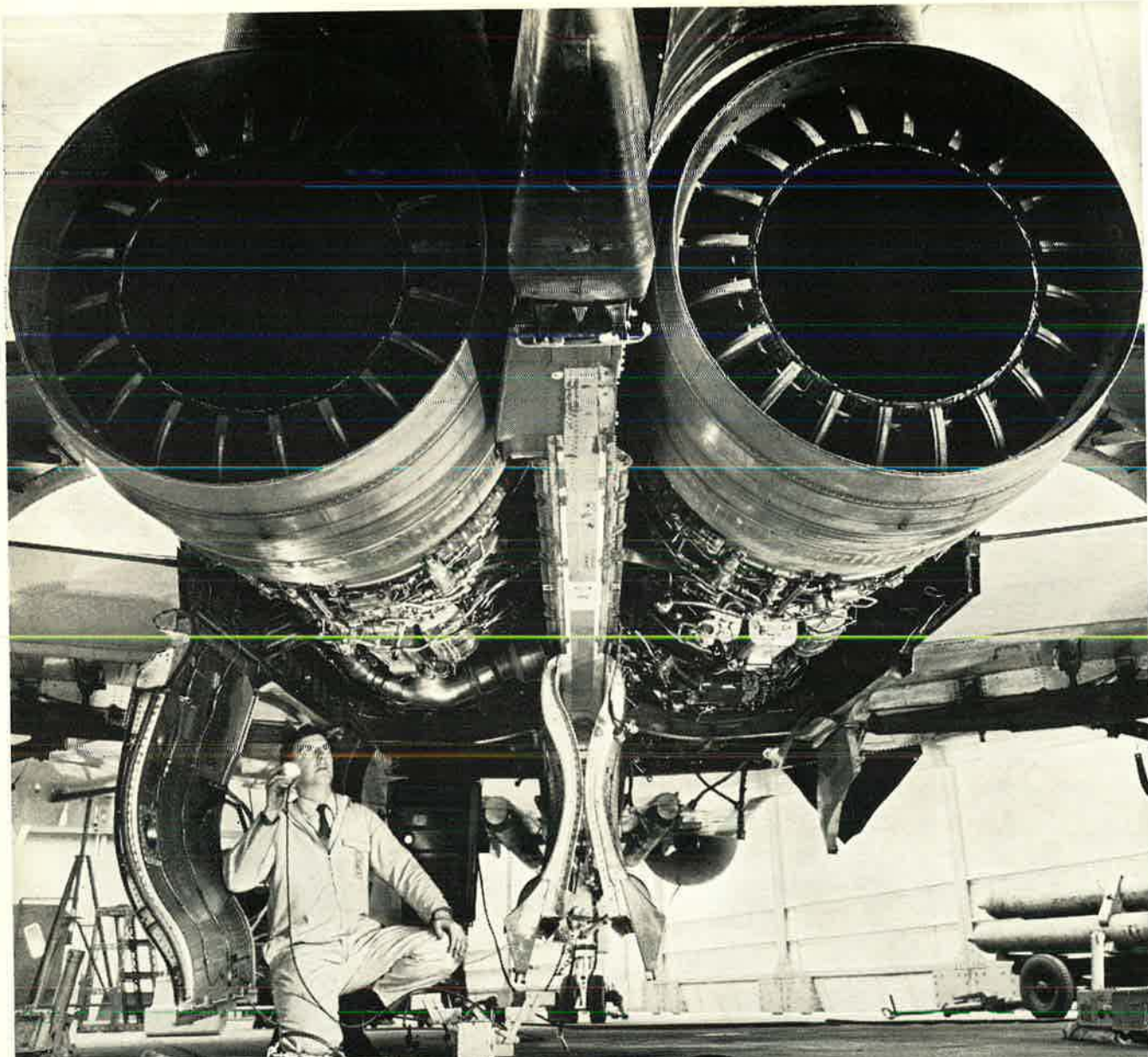
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By **Stefan Geisenheyner**

AIR FORCE MAGAZINE EDITOR FOR EUROPE

## NATO Seasparrow Program

The Netherlands has become the fifth nation to join NATO's Seasparrow project, a cooperative development program designed to produce a second-generation shipborne missile system for defense against a variety of objectives.

Originally planned by Denmark, Italy, Norway, and the United States, the initial contract for development of the weapon system was issued in September 1969. Seasparrow is designed for use against hostile aircraft, cruise missiles, and surface targets. The system consists of a combined illumination and target-tracking radar, and Sparrow missiles stored in and fired from cell-type launchers. Digital computation will help solve fire-control problems.

The system is based on the successful radar-guided Raytheon Sparrow III air-to-air missile, presently the main armament of the US forces' McDonnell Douglas F-4 Phantom interceptor. It is also used on Britain's Phantom and on the Italian Air Force's F-104 advanced all-weather interceptors. For shipboard launch, the basic Sparrow III missile is fitted with a special booster, which brings

the weapon to near sonic speed before the standard sustainer rocket motor takes over. An effective range of from eight to ten miles, about equal to that of the air-launched Sparrow, should be attainable.

Seasparrow's electronics are vastly more complicated than those of the airborne version. The missile must have a built-in height-keeping device so that its flight altitude does not rise more than ten to fifteen feet above the water. It is to have a different warhead and terminal homing head. The shipboard electronics, radar, and computers will be complex and sophisticated.

Since Seasparrow is to be an all-weather weapon, a fully automatic identification, friend or foe, capability is mandatory. Good electronic countermeasures properties have to be provided, and radars strong enough to acquire targets and track them beyond the line of sight will be required. Since Seasparrow is to be used against enemy missiles, excellent short-reaction time will have to be built into the system, which must operate fully automatically in several modes.

Development of this system is a major undertaking, and the participating parties plan to share the incurred costs in proportion to the number of

subsystems each will acquire. This cooperative effort is expected to benefit the participants through pooled research and development. Each nation will be furnished a complete production data package and will share in production.

The development contract calls for construction of three development and engineering models, complete with all support equipment, spare parts, and documentation. One system will be tested by the US Navy, one will be delivered to Norway for operational testing, and one will remain at Raytheon's plant for evaluation and updating.

Overall control of the program is vested in a board of directors, consisting of a senior representative from each country. Voting power of each member is in direct proportion to his country's share of the development cost. Major design changes require unanimous consent.

The Seasparrow program is competing with two similar European developments—the Sea Martel and the French-designed Exocet missile. Therefore, it is significant that the program managers have been able to convince the Dutch Ministry of Defense

*(Continued on following page)*



A radar-controlled Sparrow III air-to-air missile is shown mounted aboard an aircraft. Built by Raytheon Co., Sparrow III is the main armament of the F-4 Phantom interceptor. It is also the system upon which NATO's Seasparrow cooperative development program is being based.



A Seasparrow is prepared for a test launch aboard the aircraft carrier USS *Enterprise*. The Netherlands recently joined Denmark, Italy, Norway, and the US in the joint project to produce the second-generation shipborne missile system for defense in a variety of tactical situations.



One of the projects for a high-speed fan-lift V/STOL airliner studied by Hawker Siddeley, the HS 141 will seat 100 passengers, cruise at more than 600 mph, and operate at ranges between 150 and 1,300 miles. Two types of engines—a set for vertical flight and a set for horizontal flight—are to be utilized.

to participate in this promising project.

### British V/STOL Transport

Hawker Siddeley of Britain for several years has studied the application of V/STOL techniques to civil aviation. This has followed unmatched experience gained in building the world's first operational V/STOL fighter, the Harrier.

Among the projects under consideration have been long-range aircraft, as well as intercity transport designs, powered by lift-fan engines that can operate either in the STOL mode from small airfields or in VTOL from more restricted sites near or in city centers.

A more detailed design for such an aircraft was first made public during the Hanover Air Show this spring. The same study was recently submitted to the British Ministry of Technology as Hawker Siddeley's entry in a design competition that will lead eventually to the construction of a city-center-to-city-center airliner for use in the 1980s.

Hawker Siddeley's project is designated HS 141. It is, at present, a paper project of which a number of variants exist. The basic aircraft, fundamentally representative of all proposed variants, will carry 100 to 120 passengers at a cruising speed of more than 600 mph.

When operating in the VTOL mode from small restricted sites or existing heliports, the HS 141 will have a range of up to 500 miles. It can, therefore, serve most of the high-density routes in Western Europe. Operating with short takeoff and landing from small airports or from the larger airports' STOL runways, a full payload of 20,000 pounds will be transported over stages of up to 1,300 miles.

The presently envisioned maximum vertical takeoff weight is 125,000 pounds. In the STOL mode, this can be increased to 134,000 pounds. The aircraft is scheduled to be powered by two Rolls-Royce RB.220 cruise engines and sixteen RB.202 lift-fans. Both engines currently are in the early development stage. A model of the RB.202 was exhibited during the Hanover show, and a rough impression of its size, structure, and operational capability could be gathered from it.

The RB.202 is planned as a very compact, two-spool turbofan of extremely low weight. Extensive use is to be made of such weight-saving materials as glass fiber and carbon fiber composites. The two spools will be counter-rotating to eliminate any disturbing gyroscopic effects in the hover mode. The bypass ratio will be at least ten to one; any lower proportion would increase the engine's noise generation and make it unsuitable for civil use.

Rolls-Royce's present lift jet engines such as the RB.162 offer an admirable one-to-sixteen weight-to-thrust ratio. It can be assumed that the second generation of lift engines, to which the RB.202 belongs, can offer ratios of at least one to twenty or better. No specific thrust-generation figures on the engine have been released as yet, but a simple calculation based on the weight figures of the HS 141 indicates that thrust must be in excess of 10,000 pounds. Work on this engine is progressing satisfactorily, officials say.

Practically nothing is known about the HS 141's projected cruise engine—the RB.220. Size and weight of the aircraft would demand a minimum thrust of at least 40,000 pounds. This means that the RB.220 must have a basic rating of 20,000 pounds and, for acceptable economy, should have a by-

pass ratio of one to six or one to seven. It seems, however, that the engine is still just a paper project, and no definite steps as yet have been taken to initiate development. Rolls-Royce is presently overcommitted on long-range projects, and it is unlikely that the firm will embark on this program without firm government support.

The RB.202 lift jet's high bypass ratio offers a predicted noise level of about thirty PNdBs (perceived noise level in decibels) lower than comparable present-day lift jets. On this basis, it is possible to promise very moderate engine noise during takeoff and landing of the HS 141. According to the manufacturer, this will not exceed ninety PNdBs over a 1,500-foot radius. It may be of interest to compare this with everyday street-noise levels. The decibels generated by a busy eight-lane highway observed from a distance of 500 feet can easily top ninety PNdBs.

The designers promise also that the HS 141 will project considerably less noise toward the ground during flyovers than today's conventional aircraft. It has been calculated that, beneath the flyover corridors, the ground-noise level will not exceed seventy-seven PNdBs, a figure well within ambient city noise. A 727 at 500 feet generates noise that peaks at around 115 PNdBs over a considerable area since the aircraft must fly a long approach at low level in landing. The V/STOL aircraft can descend from a higher altitude at a rapid rate directly over the STOL or VTOL port, thereby limiting noise at the airport area.

Control of the aircraft during VTOL operation is achieved by deflection of the swivel-mounted engines and by modulation of their thrust. Takeoff procedure involves the use of maximum thrust up to an altitude of 250 feet. Power is then reduced to lower the noise level, and forward flight is slowly initiated. Transition to full forward wingborne flight takes place at 1,000 feet. Speed of 170 knots is reached about sixty-five seconds after leaving the VTOL pad and the aircraft is in conventional aerodynamic flight. The lift engines are shut down and their fairings and air intakes closed.

Designers of the HS 141 have included fail-safe principles for all structural and system components. For example, the fan-lift system with its multiple but self-contained engines has adequate thrust and flexibility to guarantee aircraft safety even after failure of any two engines. The overall target for safety is set at ten

times that demanded by the Federal Aviation Association or the British Registration Board for current conventional aircraft.

Although direct operating cost per hour for this VTOL design will be higher than that of a conventional airliner (present estimates range between an increase of twenty to forty percent), it can be expected that productivity will be increased by approximately the same amount. It is hoped that block speeds over short stages can be increased by as much as one-third. This gain in time will result from various factors: Airport handling time can be reduced to a minimum since the aircraft will not have to wait in the stack for landing permission, the aircraft will not have to queue up for takeoff, and taxiing is largely unnecessary because the liner can land directly on the loading ramp.

Hawker Siddeley's HS 141 project is an interesting study for an advanced aircraft that can have both civil and military applications. The technology necessary to build it is in easy range of today's state of the art. It remains to be seen, however, if the British government can be persuaded to grant the substantial funding needed to launch this project.

### Dornier's Do.32K

Dornier of Germany recently concluded tests of its tethered observation platform, Do.32K Kiebitz. The device was built under contract from the German Ministry of Defense for use as an unmanned platform to carry a variety of sensors. Development and testing, as well as indications about the future use of the device, were largely kept under security wraps. However, some technical details of the test vehicle, which might be followed by a more powerful operational version, were recently released.

The Dornier Kiebitz is a highly mobile observation system destined for use by field commanders to gather real-time reconnaissance data via TV or IR sensors. In addition, the device can serve as relay point for VHF signals in mountainous terrain and can carry radar antennas for early detection of low-flying aircraft. The Do.32K can be used in any situation where a stationary platform at a moderate altitude is of advantage.

The system consists of the tethered, unmanned rotor-supported platform and a highly mobile truck-mounted ground station with cross-country capability. The platform can carry a payload of 100 pounds to an altitude of 900 feet. The device's two-blade

rotor is driven by cold-gas nozzles located at the rotor tips. A MAN 6012L centrifugal gas turbine generates the compressed air that is ducted through the hollow rotor blades to the nozzles. Fuel for the turbine is pumped to the platform through a high-pressure hose, which is an integral part of the tether cable. This allows a practically unlimited flight time.

Speed of ascent is relatively slow. The device reaches its top altitude of 900 feet in five minutes. Since it has to carry its own weight plus that of the tether, in addition to the shielded ca-



The Dornier Do.32K Kiebitz tethered observation platform undergoes a test launch from its truck-mounted ground-support vehicle. From moderate altitudes it could provide field commanders with much-needed reconnaissance.

bles leading from the ground station to the sensors, higher altitude is impractical because of limited payload.

A stabilization system built into the platform controls flight attitude and compensates to a degree for drift. The rotor blades are under cyclic control and the turbine exhaust is used for stabilization around the roll axis. Icing does not pose any problem because the rotor blades always are heated by the flow of warm air through their cores. This factor allows operation of the Kiebitz under any weather conditions. The platform will



The Kiebitz is shown aboard the cradle of its truck mount. Much information and the probable future use of the observation device are still under security wraps. Its vehicle-mounted support gives Kiebitz cross-country mobility.

autorotate to the ground at a moderate speed in case of engine failure.

The mobile ground station serves as transport vehicle for the platform, and as launch and landing pad. It carries the fuel next to the tether cable's drum and winch. A separate truck would house the ground station for reconnaissance gear or the radio relay station.

The Do.32K has successfully passed its initial tests, and Dornier currently is working on a higher-powered operational model, designated Do.232. The new design uses the same principle of operating but is to be equipped with a more powerful engine. This turbine, a KHD T-112, will allow a payload increase to 180 pounds or offer a correspondingly higher altitude. However, considerable developmental work still has to be performed before flight of the new model, because the rotor system is to be driven by hot-gas jets. This requires extensive engineering changes in the basic construction of the device, centering on redesign of the ducting system and nozzles, which have to be constructed from heat-resistant material.

A firm order for the system has not yet been officially announced, but it can be assumed that the military requirement for such a device still exists. The German army does not have a reconnaissance system for the battalion level, and this Dornier system would give field commanders an up-to-date and flexible tool for battlefield surveillance.—END



## A Different Perspective

*The Wartime Journals of Charles A. Lindbergh.* Harcourt Brace Jovanovich, New York, 1970. 1,038 pages with index. \$12.95.

This is a day-by-day account of accomplishments and frustrations in the World War II period and immediately before by a man who has soared the heights and plumbed the depths of human experience.

Much, but by no means all, of this volume is concerned with aviation matters: the status in the late 1930s of military aviation in the world powers; how American industry—Ford and the B-24 being Lindbergh's on-the-spot example—joined forces with the airplane makers to stock "the arsenal of democracy"; how airpower was employed by the US in the South Pacific; and so on. Written from the vantage of a ringside seat, Lindbergh's observations and opinions (even now, a quarter of a century later) carry the special authority of a man whose own towering aviation accomplishments had earned wide-eyed admiration around the world.

Although, as the *Journals* make plain, our military attachés—men of the caliber of a Mike Scanlon or an Arthur Vanaman or a Truman Smith—were themselves knowledgeable about European aviation developments (planning, production, aircraft performance), it is also clear that their formal reports, sent through channels, seldom came to the attention of the top people who had the real "need to know." On the other hand, Lindbergh's observations—uniformly sound and accurate, and often based on information gained when he was accompanied by one of our air attachés—commanded close attention at the highest levels. Perhaps, one is led to speculate, that could be why Goering and Company were so agreeable to Lindbergh's seeing so much and to permitting him to make personal flight evaluations of their newest fighters, including, in October 1938, the vaunted ME-109. They were not at all reluctant that the impression be gained of German air invincibility.

For example, in the spring of 1939, General "Hap" Arnold was so anxious to obtain Lindbergh's views that he intercepted him by radio as Lindbergh returned to the US by steamer, and arranged for a private meeting at

West Point. Ironically, Lindbergh gives the incident only brief mention in his *Journals*; one needs to refer to Arnold's *Global Mission* to learn that this briefing was "the most accurate picture of the Luftwaffe, its equipment, leaders, apparent plans, training methods, and present defects I had so far received."

From the summer of 1939 until Pearl Harbor, Lindbergh focused much of his great energy on the task of avoiding "having this country pushed into a European war," i.e., by siding with France and Britain against Germany. Such involvement, he felt, would be apt to throw the entire world into chaos. There were many others, among them people of much influence, who shared his view. On the other side of this bitterly debated question was most of the Roosevelt Administration, and the antagonisms that developed with FDR himself became so fierce that, in April 1941, Lindbergh was forced to resign his colonelcy in the Air Corps Reserve.

This is not the place for a discussion of political matters that will receive ample attention from the pundits, but the consequences to Lindbergh do require comment. His commission resigned, he found it impossible after Pearl Harbor to serve his country in the best way he knew how, on active duty, even after direct face-to-face appeals to Arnold and Secretary of War Stimson.

It was not until April 1942 that he was able to begin an informal, but essentially full-time (and extremely important) association with the Ford Motor Co., helping that organization bring its new, giant Willow Run facility from zero production to 400 B-24s a month (including "knockdowns" for assembly by Douglas, Consolidated, and North American) within two years. This story, with all its rich detail, including much about Lindbergh's frequent sessions with the senior Henry Ford as well as with Harry Bennett, Charles Sorensen, and all the others at Willow Run, is fascinating.

For AFA members, and most especially for those who have flown in combat, the 150 or so pages of the *Journals* concerned with his April-September 1944 mission to the South Pacific is must reading. During that period, Lindbergh concentrated on improving performance of the F4U Corsair and the P-38 Lightning. Applying fuel-management lessons he

had learned during his nearly quarter century of flying, Lindbergh was able to show how (in the case of the P-38) to increase combat radius from 570 to 700 statute miles routinely, and to 750 miles when selected pilots were involved. The value of these performance gains was incalculable. Though in the war areas as a civilian, Lindbergh repeatedly flew combat missions. The writing of his *Journals*, in this period especially, is almost always both gripping and engrossing; occasionally, it becomes sheer poetry.

Finally, the *Lindbergh Journals* tell of his return to Germany after V-E Day. Conditions were almost indescribably chaotic, but in aviation matters he knew where to look and with whom to talk. The planes on the drawing boards for the future, the men who were doing the research and making the designs—the Baeumkers and the Messerschmitts—these were the whats and the whos he concentrated upon, again with results of great value.

Throughout, the *Journals* represent a Baedeker relating to places near and distant. No less, they are a Who's Who in Aviation. Think of a name—almost any name—of a man active in these arenas of World War II, and chances are good his name is in the book. Included are five AFA presidents and board chairmen—Doolittle, Foss, Kenney, Lovelace, and Spaatz—and the father of a sixth, the senior Thomas Lanphier.

Here is a book that evokes all manner of memories, some of them inevitably to rekindle controversy. It is an important book, be sure of that.

—Reviewed by Walter T. Bonney. Mr. Bonney is Director of Information for the Aerospace Corp. and the author of *The Heritage of Kitty Hawk*, published by W. W. Norton in 1962.

## An Ambassador's Assessment

*NATO: The Transatlantic Bargain*, by Harlan Cleveland. Harper and Row, New York, 1970. 204 pages. \$4.95.

Mr. Cleveland, United States Ambassador to the North Atlantic Treaty Organization from 1965 until 1969, has provided a clear, if clearly opinionated, analysis of the Alliance's problems and progress during the 1960s. His critical review of crisis

management in NATO emphasizes "... how history's closest peacetime allies stuck together despite détente, disillusion, and de Gaulle by practicing the art of consultation." The author stresses that the Alliance must carry on broad, frank, and continuous consultation if it is to meet the challenges of the 1970s. NATO must develop a common policy, he argues, that will allow sustained efforts toward a European settlement and peace with the Soviet Union without permitting a deterioration of the Alliance's defensive capabilities.

The book is not a theoretical work. It is a combination of on-the-scene reporting and practical suggestions regarding the policies and inner workings of the Atlantic Alliance. The Ambassador stresses the personal element in policy-making. He reasons that diplomats working together toward a common policy make better decisions than those trying to juggle and meld separate policies sent down from their respective capitals.

The Nuclear Planning Group (NPG) is singled out as an example of a particularly effective consultative body. The author argues persuasively that mix-manning of policy rather than mix-manning of hardware was the critical issue within the Alliance in the '60s. He shows that the NPG allows participation and cooperation in formulation of NATO nuclear policy, thereby providing for more realistic policies and for assuagement of European doubts and fears without subtracting from the effectiveness of either the Alliance or the deterrent. He recommends that similar multilateral negotiating procedures be used in economic and financial matters concerning the Alliance, including allocation of defense costs. The firsthand data on the origin, functions, and agenda of the NPG are especially valuable in view of the dearth of authoritative information about that agency currently available to the public.

Mr. Cleveland provides an incisive insider's view of the Alliance's problems during the last decade. His description of the mid-1960s "détente fever," his vivisection of de Gaulle's role in the French departure, and his critical comments regarding Prime Minister Trudeau's part in the Canadian withdrawal are particularly interesting. Cleveland's argument against Willy Brandt's *Ostpolitik* as "too German" is not as clear, nor is it persuasive. His almost cavalier treatment of the massive Multilateral Force planning effort (he refers to it as a footnote, rather than a chapter in NATO history) may raise objections in some quarters.

Overall, *NATO: The Transatlantic Bargain* is a valuable source of firsthand information on NATO problems and procedures. The author has combined lively prose, insight, and common sense in an informative and thought-provoking book.

—Reviewed by Capt. Michael A. Freney. Captain Freney is on the faculty of the Department of History at the Air Force Academy.

## A Warrior's Wisdom

*Combat Commander*, by Maj. Gen. Ernest N. Harmon, USA (Ret.), with Milton and William R. MacKaye. Prentice-Hall, New York, 1970. 352 pages with maps and index. \$8.95.

General "Ernie" Harmon was one of the most successful combat commanders of World War II. Whether he intended the book to be that or not, *Combat Commander* is a study in leadership. It is well worth reading, though guaranteed to raise the eyebrows of any airman. General Harmon commanded armored divisions almost continuously from the November 1942 landings in Morocco until the war's end. Yet, to read his account of fighting in North Africa, Italy, France, and Germany, one would almost think that the airplane had not yet been invented. In the closing chapters, the General twice mentions a postwar assignment, which didn't materialize, as director of Army instruction at the "Air Force Tactical College, Maxwell Field, Louisiana." The reader will search in vain for the name of any US or Allied airman, and strategic air operations are never mentioned at all.

Despite General Harmon's one-dimensional account of a three-dimensional war, his lessons in leadership are important to military men of any service, and to civilians as well—particularly during these times of crisis in leadership. He doesn't attempt to construct formulas for leaders or to suggest that there is only one way to do it. But what worked—and worked well—for him is all there: professional competence, attention to detail, insistence on communication up and down the line, respect for the troops, willingness to do the unpopular when necessary, insistence on sharing the risks and the credit, integrity, and common sense. His type of leadership, which rebuilt the morale of several shattered units, was based on an understanding of human nature.

Nowhere was his kind of leadership more evident than in his final assignment in Europe after V-E Day—when

he was organizer and commander of the United States Constabulary. Out of a group of men, most of whom wanted nothing from the Army but a ticket home, he forged one of the most highly motivated, best-disciplined, spit-and-polish outfits in our military history.

After his retirement in 1948, General Harmon became president of old, but faltering, Norwich University at Northfield, Vt. The drive, imagination, and humanness that had made him a great field commander served equally well in that university's miraculous resurrection.

*Combat Commander* also is of more than passing historical interest. The General's comments on the evolution of tactics (strictly ground), the Rapido River crossing, Anzio, and the Bulge are blunt, to the point, and he is not at all reticent about the strengths and weaknesses of his superior officers. But he is equally open about his own mistakes. His account of dealing with the Russians in Czechoslovakia, where he commanded US forces immediately after V-E Day, is of particular interest. During the brief period when relations were soldier to soldier, all went well. It became another story after the political commissars arrived.

General Harmon's book is well written, fast moving, sometimes humorous, often exciting, and always worthwhile. In retirement, as in combat, he is not afraid to stick his neck out. That is one of his, and the book's, great virtues.

—Reviewed by John L. Frisbee. Mr. Frisbee is Senior Editor for Plans and Policy of this magazine.

## Middle East Background

*Soviet-American Rivalry in the Middle East*, Edited by J. C. Hurewitz. Frederick A. Praeger, New York, 1970. 352 pages with index. \$2.95 paperback.

Since the Middle East is increasingly becoming a testing ground of contemporary international superpower relationships, a background paper that throws light upon complex issues and trends in this contested area is of particular value, even if it suffers from the lack of timeliness of some of its content. This book, fashioned from information presented at a conference sponsored by the American Academy of Political Science, Columbia University, makes a major contribution to understanding Middle East problems.

Contributors of outstanding and recognized merit are responsible for  
(Continued on following page)

many of its strengths, with a most significant contribution provided by the editor, J. C. Hurewitz. His outstanding introduction concerning the origin of rivalry in the Middle East stands out as a commendable synthesis of conflicting forces, especially when read along with Laurence W. Martin's outstanding chapter on the changing military balance.

Perhaps unduly obscured in the military analysis, however, is the dominant role that airpower plays in the military/political equation in the Middle East. In essence, the military balance boils down primarily to the balance of airpower. Regretably, the concept of the air balance may have been unduly distorted in US policy appreciations. The avoidance of major conflict, if not stability in the Middle East, depends more on the measurable and durable superiority in the air of our friends and allies than is generally recognized. The air balance between Israel and Egypt, for example, has already been sharply and perhaps irrevocably altered. This may brutally strike home if the present efforts to reach a peace settlement fail.

In the section on air assistance to Middle East powers, more could be said, too, about the significance of the overall air assistance that the Soviets have provided. In effect, the Soviets now have an extensive nucleus of air bases from Algeria to Egypt and

Syria and Yemen. These, plus the existing infrastructure of equipment, competent technicians, and maintenance facilities, as well as aircraft and other weapon systems in radical Arab states, could serve as the basis for rapid expansion of Soviet military capabilities in the area should the occasion arise.

A section on the US Sixteenth Air Force in the area would also have made a useful addition, as would further consideration of the overall military balance in the Mediterranean. The numerical and qualitative material inferiority of the NATO forces in the area to those of the Warsaw Pact should be considered in this context. These restrict our policy options and our capability to influence local events.

The economic analysis of the book contains interesting speculations concerning the possible course of Soviet/US aid and other economic relations with the Middle East. If deficiencies exist, they might be found in an overabundance of hope concerning the prospects of comprehensive détente affecting the Middle East and the ending of the cold war. Discussions of the current trends in the Soviet economy, however, are not only accurate but penetrating, for example, in the section written by Franklin D. Holzman.

The limits of a US policy of "even-

handedness" are well phrased by Malcolm H. Kerr in his masterful and provocative contribution entitled "Persistence of Regional Quarrels." He states, ". . . the political processes of the region are not subject to very much manipulation. . . . No relationship of the radical military dictatorships [e.g., the UAR, Syria, Algeria, Iraq, the Yemen Republic, and South Yemen] . . . with the United States has much prospect of being close for long. . . ." He also wisely points out the limits of a settlement of the Arab-Israel problem imposed by the superpowers, suggesting that "forced and unwanted solutions, even if America and Russia could ever agree on them, would run the risk of becoming unstick in unforeseeable and explosive ways."

In his excellent chapter entitled "Soviet Search for Security," Philip E. Mosely states that attempted projections of Soviet policy in the Middle East can be categorized as either cataclysmic or utopian. This book seeks a middle ground, but, in fact, the balance has shifted more toward the former than toward the latter since the book was written.

—Reviewed by Robert A. Kilmarx. Dr. Kilmarx is a Research Principal at Georgetown University's Center for Strategic and International Studies.

## NEW BOOKS IN BRIEF

*Aircraft and Sea Power*, by Vice Adm. Sir Arthur Hezlet. The author analyzes the influence of aircraft on seapower during the past sixty years, with a look at the future. He deals with land-based aircraft, including strategic bombers, rather than with sea-based airpower alone. Includes maps, battle plans, and illustrations. Stein and Day, New York, 1970. 360 pages, indexed. \$15.

*Helicopters and Autogyros of the World* (Revised Edition), by Paul Lambermont with Anthony Pirie. This is a new edition of the reference book first published in 1957, which has become the standard work on rotary-wing aircraft of all nations. Includes pictures and technical data. A. S. Barnes & Co., New York, 1970. 446 pages with tables and index. \$15.

*The Log of Air Navigation*, by Maj. Gen. Norris B. Harbold, USAF (Ret.), with Foreword by Gen. Carl A. Spaatz, USAF (Ret.). One of the Air Force pioneers in aerial navigation has written this brief but definitive history of the development of air navigation from the late 1920s to the close of World War II. It is an authentic, readable book, with thirty pages of historic photos and numerous anecdotes. The Naylor Co., San Antonio, 1970. 170 pages. \$10.

*Project Apollo: The Way to the Moon*, by P. J. Booker, G. C. Frewer, and G. K. C. Pardoe. Originally published in England, this is a clearly written and well-illustrated explication, in language understandable to the layman, of how the technical problems were surmounted to achieve

Apollo's objectives. Mr. Booker is Editor of the *British Journal of the Institution of Engineering Designers*, Mr. Frewer worked for Boeing at Kennedy Space Center during the Apollo program buildup, and Mr. Pardoe is with Hawker Siddeley. There is an error in the date of Gagarin's orbital flight, which presumably will be corrected in future editions. American Elsevier Publishing Co., New York, 1969. 212 pages with index. \$5.50.

*Reprieve From Hell*, by Samuel B. Moody with Maury Allen. The author, a retired Air Force master sergeant, was captured by the Japanese in April 1942 while serving with the 27th Bomb Group in the Philippines. This is the moving story of his three-and-a-half years as a POW in the Philippines and Japan. Mr. Moody, a past National Commander of the American Defenders of Bataan and Corregidor, has published the book privately. Now in its second printing, it may be purchased from him at Box R, APO, New York 09178. 213 pages. \$1.75, paperback.

*Seven Firefights in Vietnam*, by John Albright, John A. Cash, and Allan W. Sandstrum. The authors, all combat veterans of Vietnam and Army historians, have described in detail seven engagements that illustrate the wide variety of fighting that has characterized the Vietnam War. The accounts are based on personal experience, official US Army records, journals, after-action reports, and interviews. Published under auspices of the Army's Chief of Military History by the Government Printing Office, Washington, D.C., 1970. 159 pages with index. \$1.

# SAFE DRIVING — THE AIR FORCE WAY

THIS is to tell you about a current and important program of AFA's Aerospace Education Foundation. We have published, in cooperation with Grosset & Dunlap, Inc., a New York publishing firm, an excellent book called THE SAFE DRIVING HANDBOOK.

The book is based on the highly successful safe driving program of the Air Force, which accounts for your interest. It is an unusual example of how research and techniques paid for and developed by the Air Force can be converted into useful material for the civilian population at large. Perhaps the best way to describe the book is to print an excerpt from the Foreword:

... The Air Force concluded that the principal factors in vehicle accidents, aside from mechanical failure, are operator errors and violations resulting from personal driving attitudes. Education in the basic facts of safe driving and the development of a good attitude were the keys to the Air Force approach...

We of the Aerospace Education Foundation feel that a public service can be performed by making the substance of the Air Force study program available to the general public...

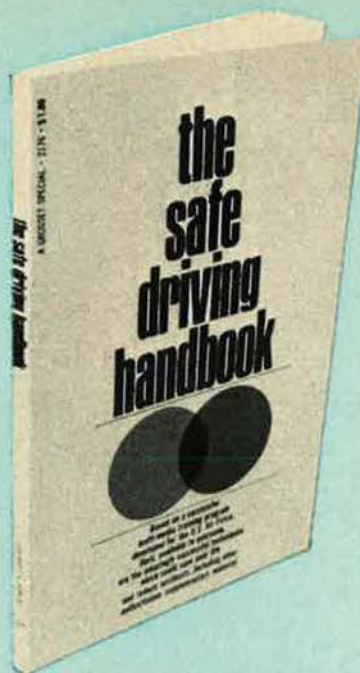
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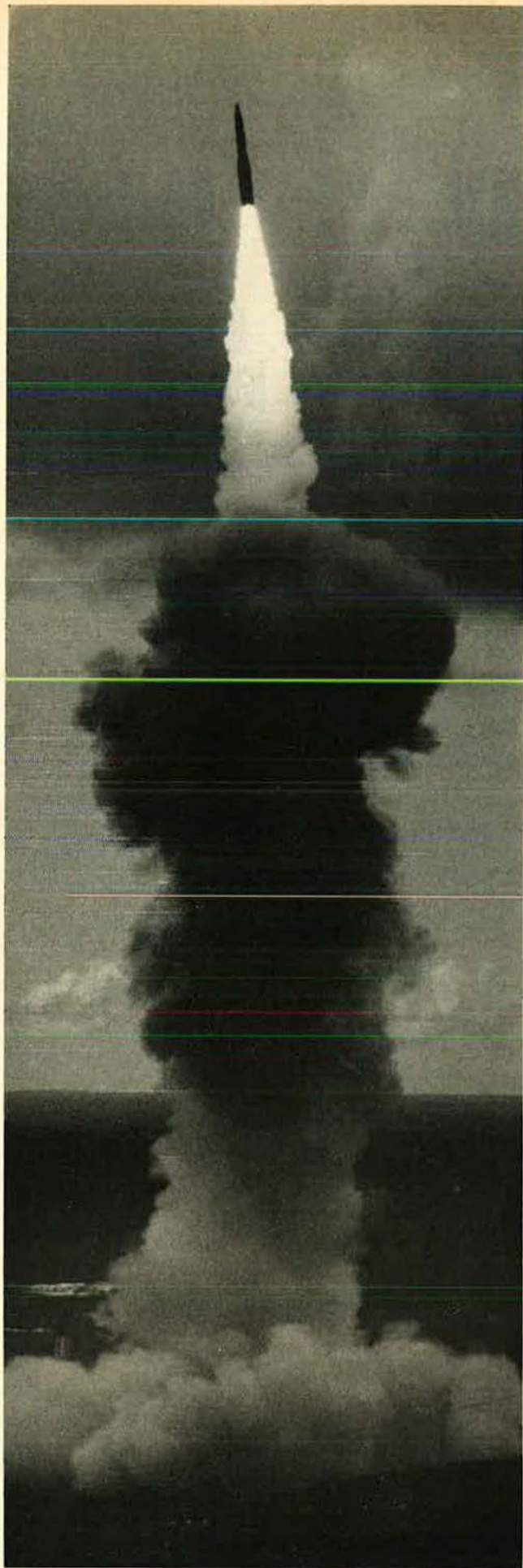
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## 'Hardpoint Defense'

US offensive strategic deterrence is based on a "triad" of land-based ICBMs, sea-launched ballistic missiles, and manned bombers. Such a combination is highly versatile and makes defense against its three elements difficult and expensive. But because the Air Force's ICBMs represent—in terms of instantly deployable megatonnage—the weightiest triad component, the Soviet Union has devoted the major share of its rapidly increasing nuclear arsenal to weapon systems optimized for strikes against the US land-based missile force. As a result, a three-phased program has been conceived—and can be carried out as needed—to assure that . . .

**T**HE Air Force's intercontinental ballistic missiles (ICBMs) represent more than \$16 billion in treasure. They make up almost half of the nuclear punch available at any given moment to the National Command Authority.

By way of a bench mark, the sea-launched missiles of the nuclear submarine fleet that are on station at any given time represent a scant eight percent of the immediately available national, nuclear-deterrence capability. In addition, the land-based ICBMs (1,000 Minutemen plus fifty-four Titans) collectively have a number of important attributes with regard to accuracy, range, payload, readiness, penetration aids, command and control reliability and, concomitantly, mission flexibility, that are not attainable by the sea-launched missiles or, in some cases, by the strategic bomber fleet.

For example, ICBMs can be used as a "flexible deterrent," capable of deployment against the enemy's hardened ICBM silos as well as "soft" industrial or urban targets. The present generation of sea-launched ballistic missiles can be deployed only against "soft" targets. It follows that protection of the ICBM force is paramount to the safety of the United States.

An evolutionary program designed to assure the pre-launch survival of the US ICBMs and adjustable to the growth rates of the Soviet missile threat is currently under review by the Department of Defense and the Air Force. Actual allocation of funds to this program for FY 1971 is as yet undetermined because of recent cuts by Congress. The program's premise is the recognition that the high survivability of the ICBM force could be reduced drastically by a coordinated attack of many accurate, high-yield reentry vehicles



By Edgar E. Ulsamer

ASSOCIATE EDITOR, AIR FORCE MAGAZINE

# The ICBMs Remain The Bulwark of Our Deterrence

such as the SS-9 MRV (multiple reentry vehicle). The some 300 SS-9 missiles now in the Soviet inventory or believed to be under construction are capable of carrying three reentry vehicles (RVs) each. Each RV warhead, in turn, is sufficiently powerful to destroy a hardened ICBM silo. Even though the "MRVing" or possibly the more sophisticated "MIRVing" (multiple independently targetable reentry vehicles) of the SS-9 may still be in an incipient stage, the inability to detect such a transformation dictates that it be treated as a probable future capability by US defense planners.

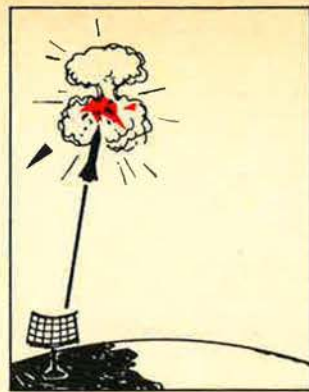
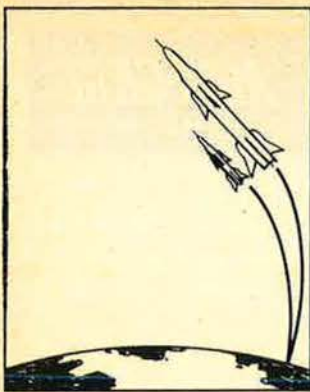
On a planning basis, the SS-9 RVs must be as-

sumed, therefore, to number about 900 warheads. Because of such factors as accuracy and reliability, the Soviets are presumed to require two warheads for the assured kill of one US ICBM in its hardened silo. This means that, if MRVed or MIRVed, the SS-9 force now in being could destroy approximately 450 of our Minuteman ICBMs. This would not be enough to prevent the United States from inflicting unacceptable damage in a counterstrike. But, as Secretary of Defense Melvin R. Laird has stated, the present high rate of SS-9 deployment (averaging about fifty missiles a year), if continued, could furnish the Soviet Union in a relatively short time with a first-strike capability against the United States. Improvements in the accuracy of SS-9 reentry vehicles could also sharply increase the threat level. So many US missiles would be destroyed in a massive attack that this country's ability to retaliate would be insignificant. This condition is being exacerbated by the high level of the Soviet ABM effort. This potential imbalance is made acute because the Administration is formally on record against increasing the number of US strategic missiles from the existing level. Further, in case of a massive attack, the Safeguard antiballistic missile (ABM) system—which was designed as a city-defense system, but which is being deployed as an area-defense system for the Minuteman force—could not be expected to be fully effective.

As Dr. John S. Foster, Jr., DoD's Director of Defense Research and Engineering, recently explained to a seminar at AFA's National Convention (*see page 77*), the Safeguard system was "never expected to—  
(Continued on following page)



Gen. Bruce K. Holloway, Commander in Chief of the Strategic Air Command, rates the Hardpoint defense system as vital to our national security if the Soviet threat continues to grow. On the opposite page, a Minuteman launch.



A massive Soviet ICBM attack on US land-based missiles could be neutralized by a combined Safeguard-Hardpoint defense system. Following launch of Soviet SS-9s and de-

ployment of their RVs, Safeguard's Spartan missile would intercept the majority of the incoming warheads. Sprint missiles would furnish defense for Safeguard radar sites.

and never claimed [to be able to]—take care of the Minuteman force” in case of an all-out Soviet attack.

But the Safeguard system, whose primary function is to protect several Minuteman fields against an accidental Russian missile launch or against an attack by Red China, could function effectively as a first line of defense against a massive missile attack on the United States if backed up by a relatively simple “Hardpoint” defense system, thereby providing defense in depth comparable to conventional area and point air defense systems.

The Commander in Chief of the Strategic Air Command, Gen. Bruce K. Holloway, told AIR FORCE Magazine that he rated such a system “vital” to the security of the United States if the Soviet Union continues its deployment of SS-9s.

### Hardpoint Defense Evaluation Program

In September of this year, an *ad hoc* group of Air Force and US Army experts was convened at the behest of Deputy Secretary of Defense David Packard to examine and evaluate the divergent approaches to Hardpoint defense (called “Hardsite” defense by the Army) evolved by the two services and to propose, within ninety days, a mutually acceptable, single concept for a national system. This evaluation is to climax in a proof-of-concept demonstration which, in turn, can serve as the basis for the development of operational systems, if and when the need arises.

Air Force findings to date indicate that an ample reservoir of off-the-shelf hardware is available that can be “synthesized” into various Hardpoint systems capable of defending the US land-based missile force against a wide range of threats. Such a system, in the view of Air Force experts, could cope with even the most advanced reentry vehicles in terms of radar cross-section and ballistic coefficient (the so-called beta factor, first used to optimize gravity bombs and roughly comparable to the lift/drag coefficient of aircraft). The ballistic coefficient determines how much the incoming warhead slows down in the atmosphere and at what kind of angle it descends toward the target. Almost all present-generation reentry vehicles have relatively slow terminal speeds, in the low supersonic or transonic range, but future systems may well penetrate the

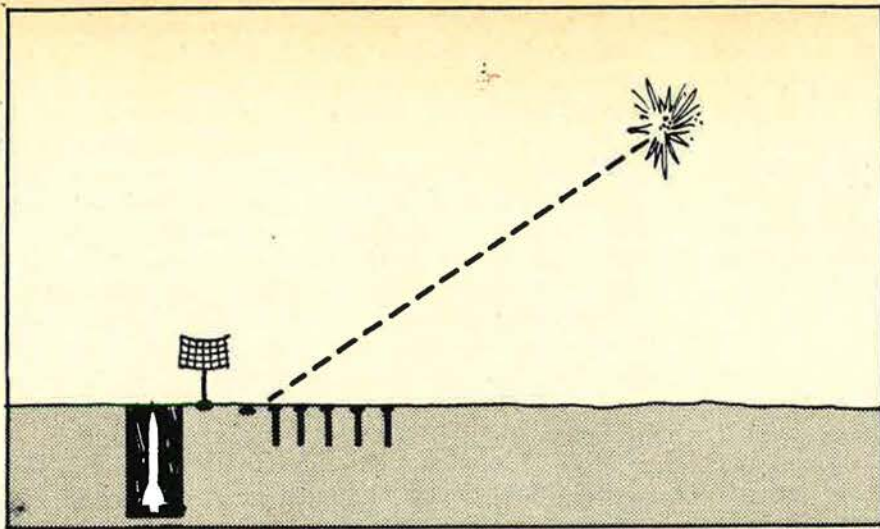
atmosphere at hypersonic speed and could descend in a manner that makes defense against them most difficult. The Air Force’s case for Hardpoint defense, according to General Holloway, rests in part on the fact that “it would be proliferated and dispersed to the same degree that the ICBM system is, with one self-contained [Hardpoint defense] unit dedicated to the defense of one silo on a one-on-one basis. As a result, there are no centralities on which an enemy can concentrate.”

A key element in the Air Force’s approach to Hardpoint defense is that both detection and interception of the enemy warhead take place as close to the individual site as possible. This approach complements the Safeguard system, whose sophisticated radars, data-processing devices, and Spartan missiles are designed to intercept at a point 100 or more miles away from the interceptor launch base. In case of a massive attack by SS-9 MRVs or MIRVs on the US ICBMs, Spartan, with its megaton-plus warhead, appears well suited to “blasting big holes in the sky,” thereby killing several enemy warheads with one missile.

The Hardpoint interceptor, by contrast, would attack the remaining incoming warheads that may have eluded Safeguard, somewhere between 10,000 and 15,000 feet up. This leads to a number of advantages. One is that the “threat tube” is narrowed, meaning that, at low altitude, the incoming reentry vehicle becomes increasingly confined in both lateral and vertical directions. As a result, it is easier to monitor. In simple terms, it is easier to cap the small end of a funnel than the wide mouth. Therefore, neither a high-performance radar nor a high-performance interceptor is required. An ancillary benefit of low interception is the “atmospheric sorting” of decoys and chaffs, which are burned up and dissipated before they reach lower altitudes.

As presently envisioned, such a system would not require interceptor guidance from the ground but, instead, would rely on a homing system aboard the missile.

An equally important advantage the Air Force hopes could be incorporated into such a system is a non-nuclear kill mechanism. The Air Force’s proposed Hardpoint defense system includes such a provision and allows for a nuclear intercept only as a back-up



**Hardpoint system, collocated with ICBM silo, would defend against Soviet RVs that may have eluded Spartan, by low-altitude interception, employing nonnuclear kill mechanism. Hardpoint interceptor employs homing devices and requires no elaborate data-processing equipment. Between five and nine interceptors would be installed at each Minuteman site.**

option. General Holloway stressed that “a requirement second to none in importance—whether the ABM system be Hardpoint or area—is to come up with an interceptor system that is so good [in terms of accuracy] that it does not need a nuclear warhead. This is worthy of the very highest priority development effort because politically, psychologically, and operationally, it would represent a giant step forward. It would eliminate the need to worry about the fratricidal effect [of a nuclear detonation on nearby US ICBM installations], and it would reduce the problem of interceptor release by the National Command Authority [which must authorize any nuclear missile firing].”

Contrary to popular belief, there is ample scientific evidence that incoming warheads *can* be broken up or otherwise neutralized without exploding them. Even if intercepted by a nuclear-armed interceptor, the enemy warhead would—even in the worst case—be only partially exploded.

As a result, the elimination of nuclear interception appears tantamount to the elimination of an otherwise certain, full-scale nuclear explosion almost overhead. Otherwise, there would be the obvious critical implications for the population and a degradation of the ability to defend against subsequently arriving enemy warheads because of the nuclear blackout effect. (Under certain conditions, radar performance would be impaired for periods of up to an hour by a nuclear explosion.)

### The Integral Hardpoint Concept

The Hardpoint defensive system, as envisioned by Air Force planners at this preliminary stage, is likely to employ the phased-array radar system of SAM-D (surface-to-air missile-development), developed by the Raytheon Co. for the US Army. (The Army system is designed for use against high-performance aircraft and short-range missiles armed with either high explosives or a nuclear warhead).

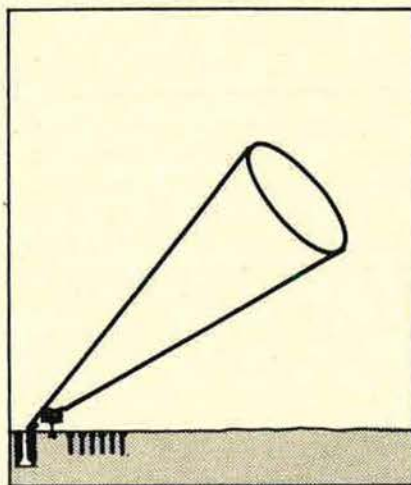
A number of existing missiles could be used to perform the Hardpoint defense interception mission, among them the latest version of the Air Force’s

Falcon missile, the Navy’s Standard Shipboard Missile, and the Army’s Hawk anti-aircraft missile.

The SAM-D radar and anywhere between five and nine interceptors would be collocated and integrated with each Minuteman launch-control facility. The two Launch Control Officers in charge of ten Minuteman missiles each would also control and operate the Hardpoint defense system. The only additional personnel requirement would be for the maintenance of the radar and the interceptors. Initially, such a system could function with one radar covering three silos, but the Air Force position is that, eventually, as the threat grows, a one-to-one ratio must be attained.

The US Army’s Hardsite defense approach differs from that of the Air Force in a number of areas, mainly because it shows greater resemblance to the Safeguard design. Employing ground-guided interceptors of the Sprint class (the terminal defense element of Safeguard), the Army’s Hardsite defense system is primarily oriented toward nuclear interception. Intercept altitudes are said to be higher than those of the proposed Air Force system, covering a broad range centered at the 50,000-foot level.

The Army’s Hardsite defense concept does not pre-  
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**Hardpoint system is designed to intercept at low altitude where the “threat tube” is narrowed, obviating the need for either a sophisticated interceptor or a complex, expensive radar system.**

clude single-silo defense on a one-on-one basis, but because of the higher costs of its associated computer and data-processing installations, it makes such in-depth deployment economically unlikely. Air Force planners, by contrast, rate the autonomy inherent in the one-on-one concept of the Hardpoint defense system as being of paramount importance. (Army spokesmen point out, however, that this approach can be modified, if necessary, to provide a one-on-one capability with "viable economies.")

### Passive Survival Control

While Hardpoint defense represents an active measure of assuring the continued prelaunch survival of the US ICBMs, a number of passive protection features are characteristic of the Minuteman concept and can be expanded relatively simply and economically.

Dispersal is a key factor of the ICBM deployment structure and forces the attacker to target at least one warhead against each US ICBM. Building on this advantage, the Air Force has already "hardened" the Minuteman underground silos with well over one



Derivatives of USAF's Falcon family of missiles, as well as similar Navy and Army missiles, are under consideration for the Hardpoint system's interceptor role. All are inexpensive and readily available.

million cubic yards of concrete and some 250,000 tons of steel, requiring the enemy to deploy, at present accuracy levels, large-yield warheads to achieve any credible kill capability. A substantial improvement in hardening is possible through the so-called Upgraded Silo program. At relatively modest cost—about \$1 billion—the degree of hardening of the existing force could be more than tripled. Because it involves no additional construction of facilities or additional missiles, it cannot be construed as an escalation of the arms race or as being disruptive to the Strategic Arms Limitation Talks (SALT). Depending upon the eventual outcome of SALT, such as the prohibition of the deployment of ABM systems that might encompass Hardpoint defense, combined with a halt in SS-9 deployment, the Upgraded Silo program should prove adequate to guarantee high prelaunch survivability of the US ICBMs throughout this decade.

The level of hardening attainable through the Up-

graded Silo (UGS) program is seen as sufficient to cope with the present SS-9 capability but could be thwarted in the future if the Soviet Union were to develop and deploy a MIRV system of greater accuracy. UGS is designed to counter the high overpressures and shock phenomena associated with nuclear bursts through a system of dynamic buffering, including shock-isolation and new ways of suspending vital system components. The UGS system would require no more than two years to be completed for any ICBM wing and could be accomplished in conjunction with other scheduled force modification. Because of the "great attractiveness" of this system the Air Force has terminated its so-called hard-rock silo program which, at a cost of more than \$6 million per silo, was deemed less cost-effective.

While Hardpoint defense and the Upgraded Silo concept do not depend upon each other, they are "definitely synergistic," according to General Holloway. "The combined effect of area defense plus Hardpoint defense plus hardening is decidedly greater than the arithmetic sum of their independent values," General Holloway said. He added, however, that, the synergistic benefit notwithstanding, "any one of these measures is, by itself, cost-effective."

### The Mobility Controversy

Still an additional scheme to assure the long-term utility of the nation's land-based missile force is being considered by the Department of Defense and the Air Force; it hinges on making a portion of the Minuteman inventory mobile and deploying it on a shell-game basis (see "Technological Superiority—Key to US Security and survival," AF/SD, June '70). A low-key study of the operational ramifications and cost-effectiveness of the mobile-basing plan is currently in progress. While its technical feasibility is not in question, initial findings indicate that such an approach might require a new guidance system for the Minuteman missile as well as a land navigation system, possibly driving up costs beyond reasonable limits. Also, the problem of "public interface," i.e., the security problem associated with transporting nuclear-armed missiles over civilian roads and fields and the possibility of demonstrations by pacifist groups, could be severe.

General Holloway said that in a series of examinations of the cost-effectiveness of a land-mobile ICBM force over the past fifteen years, the various proposed designs have "all been found wanting." He said "the operational and logistics problems associated with the present mobile-basing plan are enormous. The basic purpose of the plan—rushing the missiles to multiple shelters on warning within a given time—could be counteracted by the enemy by changing such basic parameters as higher betas [ballistic coefficient] of his reentry vehicles," he said.

Clearly, planning the survivability of the nation's principal nuclear deterrence in the face of rapidly increasing threats will, as it has in the past, produce controversy. But the primary underlying certainty of the issue was stated by General Holloway in a manner that brooks no argument: "Not taking all prudent precautions to assure the continued effectiveness of the land-based missiles would be terribly unwise from the point of view of the national interest."—END

A select group of US Air Force officers and airmen fills a collection of highly important posts in the North Atlantic Treaty Organization's farflung military operations. Here's a special report on . . .

# USAF's Unsung 'International' NATO Airmen

By Stefan Geisenheyner

AIR FORCE MAGAZINE EDITOR FOR EUROPE

**T**HERE is a select group of AF men serving overseas who are not assigned to any American military command. In fact, they try hard to lose their national identity, and take a purely international outlook of their duties. Although their daily activities benefit more than 520,000,000 people, the public knows little or nothing about their work. Even some of their fellow

airmen have only a hazy idea about what they are doing.

These several hundred airmen hold appointments as general officers in very important posts, as officers in demanding staff jobs, or as NCOs in highly responsible positions. Their jobs call for professionalism, tact,  
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USAF general officers holding key NATO assignments met with USAF Chief of Staff Gen. John D. Ryan, during SHAPEX '70, annual meeting of military chiefs in May. Seated, left to right: Maj. Gen. Thomas G. Corbin, Air Deputy, AFNORTH; Lt. Gen. Joseph H. Moore, Commander, 6ATAF; Gen. Joseph R. Holzapple, Commander, 4ATAF; General Ryan; Gen. Horace M. Wade, Chief of Staff, SHAPE; Lt. Gen. Fred M. Dean, Commander, AIRSOUTH; Lt. Gen. Theodore R. Milton, Deputy Chairman, NATO

Military Committee. Standing, left to right, Brig. Gen. Ralph J. Hallenbeck, Secretary of Staff, SHAPE; Maj. Gen. Joe T. Scepanzky, Chief of Staff, AIRSOUTH; Maj. Gen. Gordon F. Blood, Deputy Chief of Staff, Operations and Intelligence, AFCENT; Maj. Gen. Lawrence Lightner, Assistant Chief of Staff, Operations, SHAPE; Brig. Gen. Richard D. Reinbold, Deputy US Representative, NATO; Brig. Gen. Cleo M. Bishop, Deputy Commander, 5ATAF; Brig. Gen. Woodward E. Davis, Deputy Chief of Staff, Ops, 4ATAF.

language aptitude, and, above all, a tall measure of dedication. These internationally minded airmen are not involved in any cloak-and-dagger business; nor are they hidden away in some supersecret research lab. They serve in Europe as the USAF contingent to the North Atlantic Treaty Organization (NATO). That they serve in obscurity is due to the fact that surprisingly few people really know what NATO is and how it operates.

The relative "mystery" about NATO is strange when you consider that few alliances in the history of mankind have been as successful as NATO. For more than twenty-one years NATO has checkmated Soviet expansion in Western Europe . . . and USAF airmen have served on its military staffs since the very beginning. One airman, Gen. Lauris Norstad, rose to the top level of NATO command when he became the fourth Supreme Allied Commander Europe (SACEUR) in 1956.

### What Is NATO?

It has been said that NATO's success is its greatest weakness. The fact that NATO seems to be taken for granted may explain the startling results of a recent public-opinion poll, in which the question was asked: "What is NATO?" Some of the answers were more than off the mark. They ranged from, "NATO is a new laundry detergent," to, "An American organization defending Europe." The right answer, "NATO is a defensive alliance of fifteen North American and European governments," was given by only seven percent of the persons questioned.

To be more explicit, NATO is an intergovernmental organization. In no way can it be termed supranational. No nation surrenders its sovereignty by being a member of NATO. Nor is NATO a purely military organization. On the contrary, the organization consists of two distinctly different sections. The first, manned by civilians, is predominantly political. This is the North Atlantic Council, the highest authority of the Alliance. Its Chairman is Manlio Brosio (Italy), Secretary-General of NATO. The Council is composed of the representatives of the fifteen participating nations—Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Turkey, the United Kingdom, and the United States. When the Council meets at the Ministerial level, as it

does two or three times a year, Secretary of State William P. Rogers or Secretary of Defense Melvin R. Laird usually represents the United States. Between Ministerial sessions, its permanent representatives meet at least once a week. The permanent representative for the US at NATO headquarters in Brussels is Ambassador Robert Ellsworth.

Under the Council on the political side come numerous committees dealing with a wide range of subjects such as: political affairs, nuclear defense, economic affairs, civilian and military budgets, European airspace coordination, and many others. The tie between the civil structure of NATO—found in the North Atlantic Council—and the military side of NATO is the Military Committee. This is the senior military authority and the place where the long, complex NATO chain of military command starts, and where the USAF airman begins to play his or her role in the Alliance.

### NATO's Military Committee

NATO's Military Committee is composed of the Chiefs of Staff of thirteen participating nations. Iceland has no military force; France withdrew from the military side of NATO in 1966 and is represented by a Mission Chief. Like the civilian North Atlantic Council, the Military Committee meets two or three times a year at the highest level. When this happens, Adm. Thomas H. Moorer, the new Chairman of the Joint Chiefs of Staff, is the US representative. Between the Committee meetings at the Chief of Staff level, nations are represented by their permanent representatives. Gen. Berton E. Spivy, Jr., US Army, is now the US representative. Maj. Gen. Richard D. Reinbold, USAF, until recently reassigned, was his Deputy. TSgt. John G. Langlois, Personnel and Administration NCOIC, occupies a key enlisted position on the staff. The Military Committee Chairman is a British admiral. The Deputy Chairman, a highly important job involving the coordination of nuclear strategy for NATO, is Lt. Gen. Theodore R. Milton, USAF.

Serving as an executive agency to the Military Committee is the 400-man International Military Staff. There are about thirty USAF officers and airmen serving on this staff, which is responsible for seeing that the policies and decisions of the Military Committee are carried out. In addition, this staff also formulates new strategic and tactical philosophies for the armed forces

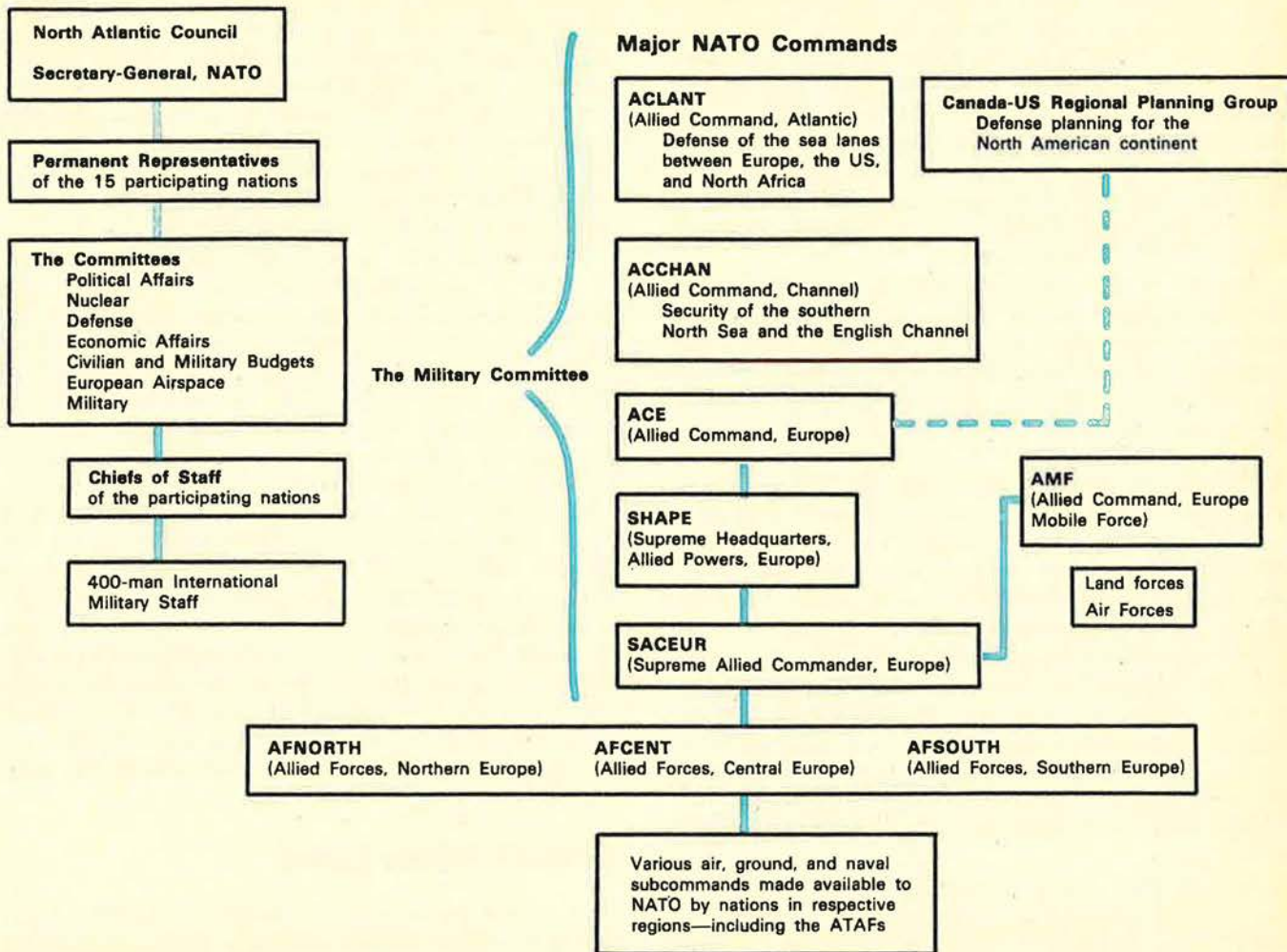


International and integrated are the styles and missions of NATO, as evidenced by this meeting of Allied staff at SHAPE headquarters in Belgium. Presiding is Gen. Horace M. Wade, USAF, who is Chief of Staff, Allied Command, Europe.

# The NATO Structure and Its Major Commands

## CIVILIAN-POLITICAL

## MILITARY



NATO is both a political and military organization as the chart above illustrates. At left are depicted the principal political components and at right the principal military com-

ponents. The two functions are connected through such elements as the Military Committee and Chiefs of Staff of participating countries to ensure smooth working of the pact.

of the NATO partners. One of its recent tasks was to adjust NATO's forces to the "flexible-response" policy, which the North Atlantic Council adopted in December 1967 to supersede "massive-retaliation" thinking.

Whereas the Military Committee can be termed the decision point in the military planning cycle, the operating agents and the major sources of recommendations are the three major NATO commands and the Canada-US Regional Planning Group. The latter organization is occupied with the defense of the North American continent, an activity that to a large degree has to be coordinated with basic NATO planning. It is in the three major commands that "the action is," and it is here that the US airmen in NATO come into greatest prominence.

### ACLANT, ACCHAN, and ACE

Two of the commands are almost exclusively concerned with the protection of the sea routes between the US, Europe, and Africa north of the Tropic of

Cancer. The first, ACLANT (Allied Command, Atlantic) at Norfolk, is commanded by Adm. Charles Duncan, USN. ACLANT's mission is to defend the sea lanes between North America and the coasts of Europe and North Africa. The second, ACCHAN (Allied Command, Channel), is at Northwood, England, under the command of Adm. Sir William O'Brien, and is responsible for the security of the southern North Sea and the English Channel. The third, and most prominent, command is Allied Command, Europe (ACE), which is responsible for the defense of Europe this side of the Iron Curtain. Supreme Headquarters, Allied Powers, Europe (SHAPE) is located near Mons, Belgium, thirty-five miles south of the NATO political headquarters in Brussels.

The bulk of the USAF personnel assigned to NATO—about 1,500—work at SHAPE and other Allied Command, Europe headquarters. In their peacetime capacities as integrated, international military planners, they must plan for the defense of a huge land

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area that extends from the North Cape to North Africa and from the Atlantic to Turkey's eastern border. Gen. Andrew J. Goodpaster, US Army, is the present Supreme Allied Commander, Europe (SACEUR). The first SACEUR was Gen. Dwight D. Eisenhower. General Goodpaster's Chief of Staff, the highest ranking airman in ACE, is Gen. Horace M. Wade, USAF. He is the first airman to become Chief of Staff at SHAPE. General Wade heads a 1,000-man staff representing eleven nations; his staff includes 130 other US airmen and women who serve in jobs ranging from duties like those of WAF Sgt. Gail Forne in the Communications Center to Maj. Gen. Lawrence S. Lightner, USAF, formerly Commander, Third Air Force, and now Assistant Chief of Staff for Operations.

Because of the size of the ACE area, and the multitude of regional factors that must be considered in realistic military planning, ACE has been divided into three geographical areas. These are AFNORTH (Allied Forces, Northern Europe) at Kolsaas, Norway, where Maj. Gen. Thomas G. Corbin, USAF, is the Air Deputy; AFCENT (Allied Forces, Central Europe) at Brunssum, the Netherlands, where Maj. Gen. Gordon F. Blood, USAF, is Deputy Chief of Staff for Operations and Intelligence; and AFSOUTH (Allied Forces, Southern Europe) at Naples, where the Air Commander, or COMAIRSOUTH, is Lt. Gen. Fred M. Dean, USAF. In addition to these key posts held by USAF general officers, USAF NCOs serve in a wide variety of responsible positions throughout Allied Command, Europe. For example, at AFNORTH, MSgt. Daniel Trifunovich is the NCOIC for graphics photography. At AFCENT, SMSgt. Willard E. Thorton is the data-systems superintendent; and at AIRSOUTH, SMSgt. Charles A. Beam is an NCOIC in the logistics field.

In turn, these regional commands each have various air, ground, and naval subcommands consisting of forces made available to NATO by the nations in each respective region. For instance, AFCENT has, in case of war, command responsibility over the 2d and 4th Allied Tactical Air Forces (ATAFs). These air forces are composed of US, British, German, Belgian, Canadian, and Dutch air elements. Fifth and 6th ATAFs, under the command of AIRSOUTH, consist of Italian, Greek, and Turkish air forces, plus some USAF and RAF elements.

### The Allied Tactical Air Forces

In the ATAFs, the USAF airman has important responsibilities in the command structure. The 4th ATAF is commanded by Gen. Joseph R. Holzapple, USAF, who divides his time between his Allied headquarters at Ramstein, Germany, and his national headquarters, USAFE, at Wiesbaden. Also serving at 4th ATAF is MSgt. Maurice E. Ashe, NCOIC for operations. Within AIRSOUTH, whose Chief of Staff is Maj. Gen. Joe T. Scepanzky, USAF, is 6th ATAF, commanded by Lt. Gen. Joseph H. Moore, USAF. Holding a key supervisory job in the Forward Scatter Branch, 6th ATAF, is SMSgt. Gerald A. Bohall.

Also under the command of SACEUR is the Allied Command, Europe, Mobile Force (AMF). This spe-

cially trained, independent force, organized into two components—land and air—was conceived when General Norstad was SACEUR in 1960. The land element is presently commanded by Maj. Gen. Alberto Li Gobbi, Italian army. It is a highly mobile, deterrent force poised for airlift or sealift into possible trouble zones on the flanks of the ACE defense area. The air component has no permanent headquarters or commander. When it is deployed, it comes under the operational control of the ATAF commander in the area in which it is to operate in support of its sister land component. At present, six nations contribute squadrons to support AMF Land: Belgium, Germany, Italy, the Netherlands, the United Kingdom, and the US.

The airmen who work in the various headquarters of ACE are primarily military planners. They do not actually command any forces, because in peacetime the national forces of the thirteen nations who are military participants in NATO remain under the control of their own governments. Only in wartime or during training exercises does a NATO headquarters take up the reins of command. The two exceptions to this general rule are the permanently assigned NATO air defense units, which must be on constant alert, and a small, standing naval force (STANAVFORLANT) of four to eight NATO frigates. However, all national forces cooperate closely with these NATO commands, and a large number of joint exercises are held yearly to assure that the command structure is combat ready. Thus, the military task of NATO in peacetime, and of the USAF airmen assigned to its staffs, is to prepare joint defense plans that provide the best possible way to employ assigned and earmarked forces in the event of war.

### Unique in Military History

It is not too difficult to imagine a planning headquarters with no actual peacetime forces as a purely national venture. But the several NATO headquarters are fully international bodies in which even the three services are totally integrated. This makes them truly unique in military history. The NATO-assigned airman, for example, does not serve as a "blue suiter" or even a "purple suiter." He or she is an international servant giving his or her best in the interests of the Alliance. As Field Marshal Viscount Montgomery of Alamein, a former Deputy SACEUR, expressed it: "The really



Another illustration of the international quality of NATO. Against a background of British Phantoms on an Italian airstrip, USAF's General Dean, center, foreground, confers with two Italian officers prior to a Treaty air exercise.





Norwegian snows form a winter backdrop for Italian artillerymen and hardware during an ACE Mobile Force exercise.

necessary thing is for every officer to understand that he is an international and not a national person. He must be concerned just as much for the defense of France, Belgium, and Holland, as for the defense of England. We are all one team and we sink or swim together."

Thus, it is not uncommon to find an office, for instance in AFSOUTH, staffed with an Italian army colonel as chief, a USAF colonel as deputy, and their branch chiefs drawn from the ranks of the Greek and Turkish navies.

These headquarters and their various divisions are surprisingly efficient, considering the difficult circumstances posed by language problems and traditions. The NATO commanders this reporter talked with emphasized that few difficulties are encountered in running such internationally mixed staffs. In fact, an important advantage accrues to the participating soldier or airman.

One NATO airman, Lt. Gen. T. R. Milton, Deputy Chairman of the Military Committee, explained it this way: Assignment to a NATO headquarters is a desirable extension of a staff-college course for the younger officer. He can learn to operate on an international level. He can discover how other nations tackle military problems and, in turn, he will be asked how his own country handles such affairs. This forces him to intensify his studies and learn his own procedures so he can give the right answers. In addition, he will be faced with many tasks that might never confront him at home.

General Milton wishes that the USAF could make more use of this unique opportunity to widen the scope of training for its young staff officers. He also regrets the rapid turnover of the young NATO-assigned officers who rotate home just about the time they become experts on their job. This impairs the effectiveness of the staff. However, he adds, it does have an eventual beneficial effect since it hastens the development of a pool of capable, internationally trained officers who will be available to NATO in case of need.

### Decisions on an International Basis

It has often been stated that the US contingent to NATO is the dominant factor in the organization and in the formation of its policies. This is not so, according to General Milton. He explains that the policies are developed and approved on a truly international basis. Compromises between the various opinions and military needs are worked out in the Military Committee with what's best for the Alliance uppermost in everyone's mind.

When the military structure of the Alliance was first being formed back in 1951, there was no question that the American military contribution was dominant. It had to be. It was the glue that held the Alliance together in those dark days when European confidence was very low. Today, it is different. In terms of troops, aircraft, and actual defense spending for the Alliance, the US is, in most cases, matched or surpassed by its Allies. For example, in Central Europe, the four and one-third US divisions are part of a force that amounts to more than twenty divisions. That means US forces are roughly one-fifth to one-sixth of the total strength in the center. When you consider NATO forces on the northern and southern flanks, the US contribution is in the order of one-tenth of the total NATO strength. The same kind of comparison can be made with the US air squadrons earmarked for assignment to ACE.

General Wade and other airmen serving in NATO point with pride to its achievements. For twenty-one years there has been no war in Europe. Not one yard of territory has been lost, or one man killed in combat involving NATO. These are striking achievements. But there is another that is usually forgotten or taken for granted. That is the feeling of solidarity that has grown among NATO nations. By collective efforts in mutual defense, the nations have welded together a shield of security that has not only kept them free, but has enabled them to avoid the kind of conflicts that, in the past, pitted them against each other with such devastating results. For example, there can be little doubt that the influence of NATO helped to prevent a full-fledged war between Greece and Turkey over the island of Cyprus during the mid-1960s. Thus, NATO has brought a political stability to the "old continent" that it has never experienced before.

Gen. Lyman L. Lemnitzer, a former SACEUR, who was himself influential in cooling the Cyprus crisis, called NATO the "successful Alliance." And when you add up its achievements, you begin to see why the USAF airmen who serve this organization today are so proud of their achievements. They know that some of their greatest efforts may pass unnoticed in the great "mystery" that surrounds their assignments. But they also know that when the time comes to leave NATO, they will return to the US Air Force far wiser than when they left it, and that they can look back on that integrated, international duty with the "successful Alliance" as one of the most rewarding tours of their careers.—END



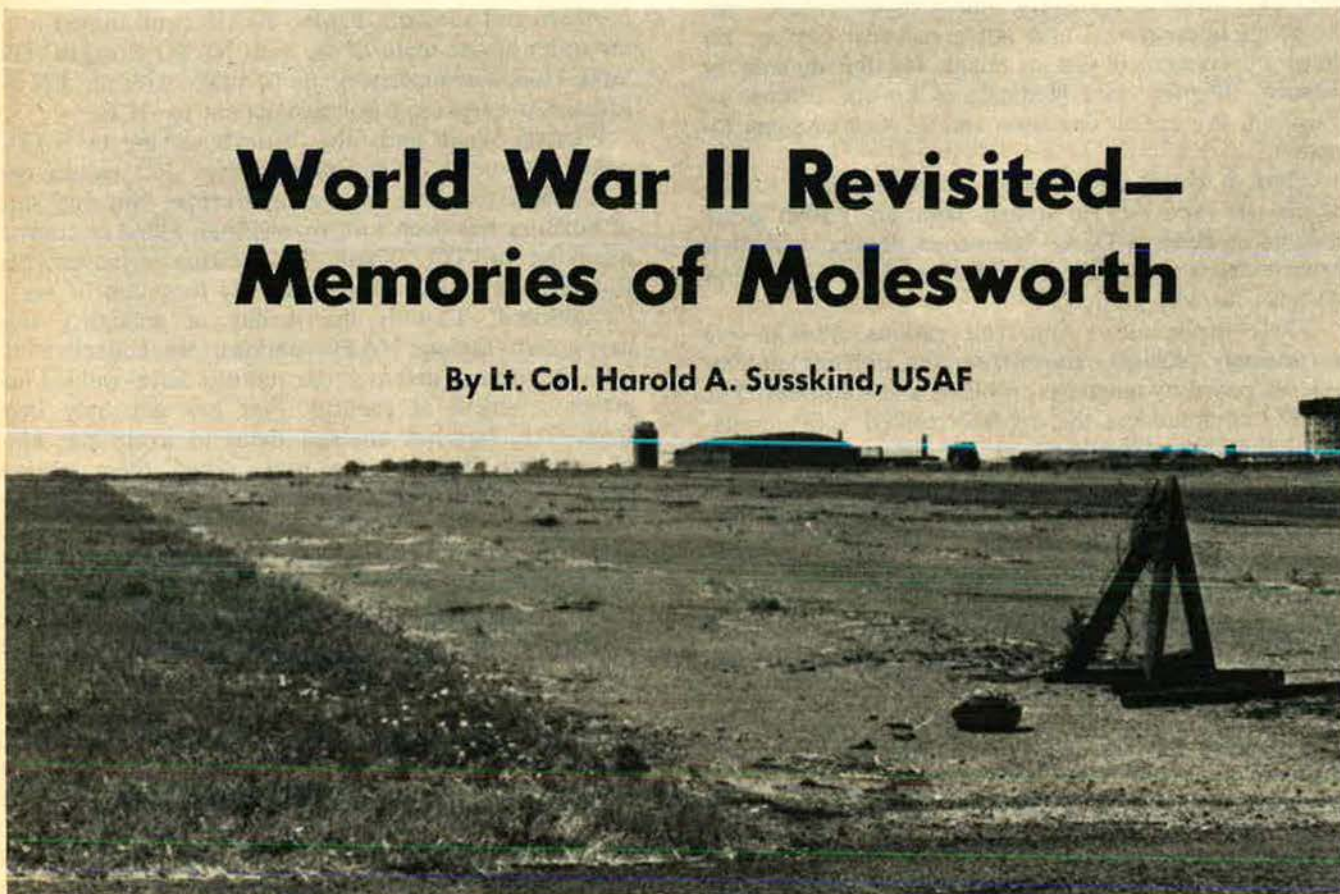
This array of Allied military men took part in NATO's Olympic Express exercise in 1969: Turks and Americans working together, officers and enlisted men of both countries.

## Sentimental Journey

Many Americans who fought in World War II have had the opportunity to return to the scenes of their triumphs and tragedies. After a lapse of twenty-five years, a veteran of the air war in Europe returns to the bomber base in England he called home during those excitement-filled days . . .

# World War II Revisited— Memories of Molesworth

By Lt. Col. Harold A. Susskind, USAF



**F**OR a change, that day in June 1945 was clear and warm at Molesworth Air Base in England.

The war in Europe had ended a month before. All of the famous Hell's Angels aircraft of the 303d Bomb Group had already left for other bomb groups and airfields in England. Practically all of the flying and ground personnel had gone with the aircraft except for a small group of us who were selected to carry the colors of the 303d to North Africa to join the Air Transport Command in Casablanca.

Finally, it was my turn to leave. Sitting in the bombardier's seat of the 3d Air Division B-17 sent to transport us, I looked out through the plexiglass nose at the camouflaged buildings as we taxied into takeoff position at the end of the runway. I felt the pilot release the brakes and the B-17 start to roll. Our speed increased and soon we were abreast of the control tower, ready to break ground.

As we lifted off I took a last look at that compact piece of England known as Molesworth AB and thought of my first mission from there, when we bombed the rocket installations at Pas-de-Calais, France, on December 24, 1943. I thought of my other forty takeoffs, loaded down with flak suit and oxygen mask, to bomb targets deep in Germany, like Stettin, Leipzig, and Berlin.

It was a little like leaving home. As the Fortress gained altitude, I took one final look at Molesworth and silently promised myself that someday I would revisit her.

Here I was, June 20, 1970, twenty-five years later, at 18,000 feet, departing the coast of Belgium aboard Sabena Flight 605, a jet from Brussels to London. It was quite a contrast to the 150-mph B-17 that I'd left England in a quarter century before.

My family and I were on a vacation from my duty

station in Italy. We were on our way to London to see some of the "fascinating" places and things that I had been telling them about over the years.

From that 18,000-foot altitude, the waters of the English Channel seemed very calm and a long way down. The fleecy white clouds were outlined against a backdrop of blue sky. In a matter of minutes we would be making a landfall on the English coast, as I had done so many times before . . . so very long ago.

As I racked my memory, I recalled that the last time I had flown this route was as a lead navigator returning from a long mission to Germany in April of 1945. It had been my forty-first combat mission.

As the Caravelle let down, we breezed over the lush English countryside and soon were circling, on final, for Heathrow Airport. The tires softly kissed the runway. I was back in England, keeping that vow I had made a quarter of a century ago.

Before going to Molesworth, I decided to drop in at St. Clement Danes Church, in the Aldwych section of London. St. Clement's was destroyed by enemy action in 1941; only the ancient walls and steeple were left standing. It was restored and rededicated as the Central Church of the Royal Air Force in 1958.

Inside the entrance and on the left is a moving tribute to the US airmen based in England who died in World War II. In a lighted, glass-enclosed case, under the US Air Force shield, a large logbook contains their names. That day the book was opened to the list of names starting with "H." The page is turned daily.

Below the glass case, in a recessed cubicle, are four books that also contain the names of the dead in alphabetical order. I opened one to page 195, which listed five Mathises. One of them, Jack, a member of the 303d, had won the Medal of Honor—"for conspicuous gallantry and intrepidity above and beyond the call of duty in action with the enemy over Vegasack, Germany, on 18 March 1943."

There was Jack's brother, Rhude, who was visiting Molesworth on the day the *Duchess* returned from the raid on Vegasack with his dead brother on board.



Before pressing on to Molesworth, the Susskind clan visited St. Clement Danes Church in London. Restored from ruin, it has a special logbook honoring World War II US airmen.

Rhude asked for and received an assignment to the 303d. He, too, was killed in action.

On page 298, I found the name of C. G. Turkington. Cal was the tail gunner who accompanied my original crew from Ephrata, Wash., through the phase training at Geiger Field, also in Washington, then over the Atlantic on a stormy night in October 1943, through the many phase training bases in England, and finally to the 359th Squadron of the 303d Bomb Group. When we reported in, the tour of duty was twenty-five missions.

Hospitalized for wounds received on our nineteenth mission—to Oberpoffenhoffen, near Munich on April 4, 1944—Cal fell behind the rest of the crew who finished their combat tour on D-Day plus two. I had finished my tour on the first of two missions I flew on D-Day. I volunteered for a second tour and returned to England in September of 1944. I saw Cal quite frequently during this period. He was shot down on a raid on Magdeberg.

More than ever I wanted to visit Molesworth AB.

So at 8:00 a.m. on a sunny June day, by myself—I thought Molesworth was a place I had to visit alone—I boarded the Underground at Paddington for St. Pancras Station. I had hopes of getting the 8:30 train to Kettering, just as I used to when returning from a weekend pass to London, twenty-five years ago.

*(Continued on following page)*



A quarter century between then and now—in the photo at right, young Lt. Harold Susskind was a navigator in 8th AF B-17s. Today, a lieutenant colonel and a veteran of long service in Vietnam, Harold Susskind is assigned to AIRSOUTH, in Naples, where he is in information work.



Kettering hasn't changed much. But one thing was noticeable to the returning Colonel Susskind. In the Liberty Run days, there was no such charming thing as a miniskirt.

Then the huge glass-domed station was dirty, dusty, and crowded. The glass roof bore gaping holes from errant shrapnel and German bombs. Today the glass was whole and clean. Blue trains had replaced the dirty olive-drab ones of wartime.

The 8:30 train eased gently out of the station, on time. In minutes I was looking at the green rolling hills of the English countryside. We came easily to stops at stations with familiar names—St. Albans, Luton, Bedford. Finally at 9:47 a.m., still on time, we pulled into Kettering.

Except for a new paint job, the station hadn't changed much. But I was still eighteen miles from Molesworth.

I walked up a hill, through vaguely familiar winding streets, looking for a bus. If I couldn't get to Molesworth, I figured I could get at least to Thrapston, nearby.

I found a bus station. It was new, but the service was no better than wartime—a sort of bus generation gap. The buses to Thrapston ran only on Tuesdays and Fridays. Today was Thursday.

Was I to get this close and still not make it, after all those years?

The ride through the quiet countryside from Kettering to Molesworth set off a flood of recollections, underscored by the road signs that ticked off place names hazy but real in the memory.



A phone booth in the bus station listed, under the heading US Air Force, an organization called "Redistribution and Marketing." Place of business—Molesworth.

I was soon explaining my problem to a secretary. Her boss, a Scotsman named James Hodkinson, told me I had an eighteen-mile walk staring me in the face. After thus pulling my leg, he promised to send a car for me.

While waiting, I took a walk around Kettering. There were a few new buildings, but the place was pretty much the same as it had been in 1944 and '45. The Cherry Tree Inn pub is still doing business on the main street. About the only change I really noticed was the miniskirt. There had been nothing like that around in the Liberty Run days.

Barry Vickers, a likeable RAF veteran, picked me up in his car, and I was on the last lap of a trip that had taken me twenty-five years. A silver anniversary.

The ride through the quiet country from Kettering to Molesworth was like a memory quiz—old stone pubs, thatched houses, road signs pointing toward familiar towns—Huntington, Peterborough, Northampton.

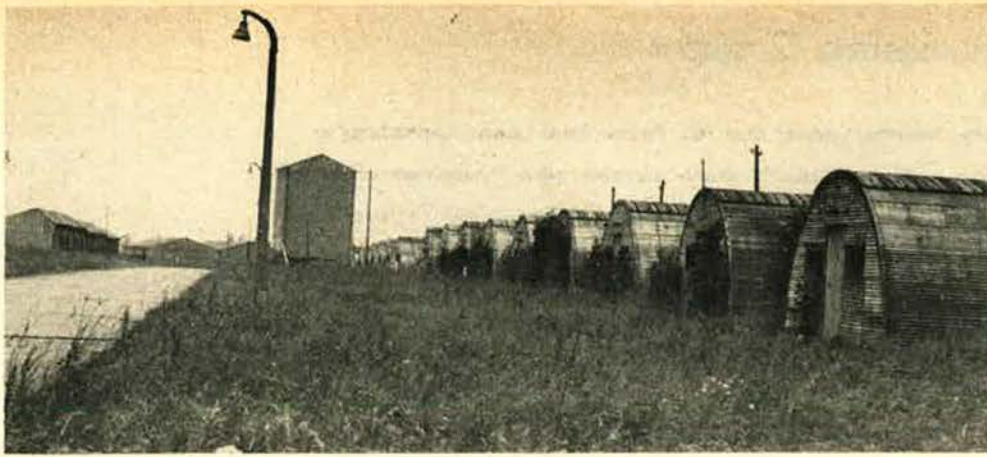
Several times we had to slow down or stop to allow hen pheasants and their broods to cross the road, so slowly that they must have known the hunting season was closed.

Finally we pulled up to the vacant gatehouse at Molesworth. I was back on the base. Mr. Vickers' office was in a low green structure. I recognized it immediately. It had housed Group Headquarters. From here, after the early morning briefings, you filed out into the foggy darkness to collect your flight gear, find your plane, preflight it, and get ready to start engines. On my first mission as lead navigator, I was so excited I fell into two ditches trying to find my aircraft. That day I was leading a raid on Berlin.

After a few minutes with Mr. Hodkinson, I strolled down the street. It was quiet. Off in the distance you could hear a faint noise, like aircraft metal being thrown on a salvage heap.

I was attending a wake—the wake of an airfield. Down another street, past a row of empty Nissen huts, entrances almost hidden by tall grass, I found an open door and stepped back into 1945.

There was rubble on the floor, and the quiet emptiness was in strong contrast to the noise of times past,



Empty now, the Nissen huts still stand as mute monuments to the airmen who warmed themselves by the coal-stove fires and waited for their missions from which so many never returned.

when young airmen crowded around the coal stove at night—when we had coal—shooting the breeze, writing letters, eating. On alert nights, the lights went out early. Who can ever forget the wake-up voice behind the flashlight saying you were scheduled for a mission that day?

Who can ever forget how empty that hut could seem after a mission when you walked in and learned your buddies had failed to return? Like the sixty empty bunks in the 358th Squadron on the night of the Oschersleben raid in January '44. Taking a last look, I slowly closed the door and returned to 1970.

I kept walking and at last came to the main runway. A barricade, long rusted and broken, marked its end. Grass pushed its way up through the tar, reaching for the sunlight. Far off in the distance you could see the control tower. Its shape had changed quite a bit from the days when Bodie Fite and Captain "Mac" used to stand on its balcony and fire their flares, signaling the planes to start down the runway. I could still hear the engines of thirty-six Fortresses awaiting takeoff, roaring defiance. In my two years at Molesworth, visibility was rarely ever this good. You were lucky if you could see the plane ahead complete its takeoff roll.

But no engines roar and no planes roll down this runway anymore.

Each step brought back more memories: Col. Kermit Stevens, "Old Bow Your Neck," who was the group CO when I reported in; Colonels Lew Lyle, William Calhoun, and William Raper, who replaced Stevens and who used to show up at the morning briefings with his huge German shepherd. The dog usually managed to steal the chair of the Deputy Commander, Lt. Col. Snyder. But the dog had more rank in his toothy mouth than the colonel had on his shoulders, and squatter's rights usually won out. Lt. Col. Dick Cole, who was my CO at the 359th, and Capt. J. "Tailwheel" Kaiser, who was my roommate for almost two years at Molesworth, at Casablanca and Dakar in Africa, and the Fairmont Hotel in San Francisco, these names stuck in my mind. Bob Hullar, Bill and Em Heller (a recent casualty in Southeast Asia), John Tulloss, Bill Hoover, Dick Bowen, Bill Goolsby, the latter three Texans—what outfit didn't have its share—all accompanied me down the runway of time.

Jack Mathis and Forrest Vosler, Medal of Honor

winners; Jim Cheney, then the Group Navigator, now the USAF JAG; Murray Pearl, the wake-up voice behind the early morning flashlight.

And of course the planes: *Hell's Angels*; *The Knock-out Dropper*; *The Duchess*, veteran of fifty-nine missions, which carried me to and from Oschersleben on its fiftieth mission—only one man was ever injured in her crews—Jack Mathis; *The Eight Ball*; *Jersey Bounce Jr.*, in which Vosler won the Medal of Honor; *Miss Behavin*, which carried me on my first mission; *The Duchess's Daughter*; *Miss Lace*; and so many other gallant ladies.

I said good-bye to Molesworth and wished her well. Chief Master Sergeant Devorchuk, one of the two Air Force people assigned to the Center, gave me a lift to the rail station at Huntington to catch a fast train to London.

The Molesworth I knew is dead. Perhaps I should have been content to remember her as she was; busy, vibrant, and alive. But what airman doesn't want, at least once, to turn back the hands of time and revisit the scenes of early triumphs? Molesworth was my "Kitty Hawk." I had to make that final sentimental journey.—END



Just as there'll always be an England, there'll always be English pubs. The Cherry Tree Inn is still doing business on the main street of Kettering, a verity that endures.

## USAF's 3320th Retraining Group

Quietly, for nearly twenty years, the Air Force has been operating a remarkable "prison without walls" where airmen who have run afoul of military law are given the opportunity for rehabilitation and restoration to duty. Here is the story of a unique military organization . . .

# Where Airmen in Trouble Earn A Second Chance

By William Leavitt

SENIOR EDITOR/SCIENCE AND EDUCATION

**T**HEY are young men in trouble, airmen convicted by court-martial of offenses ranging from AWOL to smoking and selling pot—with larceny, bad-check writing, assault, and worse thrown in. Some of these young men face undesirable or other kinds of bad discharges from the Air Force. They run the gamut of ethnic and class backgrounds. Mostly they range between nineteen and twenty-one years of age. Some are tough and hip, schooled in the ways and language of the street. Others are men fresh off the farm, who found military service a crunching culture-shock, a disastrous entrance into a bigger and more frightening world than they had ever known.

They could be your kids, or mine. They are the men of the Air Force's 3320th Retraining Group, a remarkable and unique military operation based at Lowry AFB, Colo., a few miles from Denver's Stapleton Airport. At the Group, selected Air Force enlisted men who have run afoul of military law are given a second chance to "get themselves together," to be restored to duty better prepared to cope with their personal problems and armed with a greater understanding of how and why they got into the jams they've been in.

They get that second chance in a place where there are no restraining walls, no armed guards, no barred windows—none of the ugly trappings of stockade confinement that so many of them have previously known. They arrive at the 3320th Retraining Group on their own, on their honor, unescorted. They stay with the 3320th for several months, on the average about 145 days. It is an environment very much like what they have known in their Air Force pasts, yet at the same

time sharply different from anything they have ever experienced.

For the first time in the lives of many, they are treated as individuals with a right to respect for their personal dignity, no matter what they may have done in the past. They are expected to take responsibility for their own behavior and performance. They live in barracks, pull duties, go to classes, get passes on occasion, gripe, and do most of the things that all airmen do at bases around the world. They can be visited by parents or wives—not through glass barriers, but out of their barracks, in a normal setting. The atmosphere is that of a "correctional" institution geared, not to punishment, but rather to the concept of what psychologists call the "therapeutic community."

"Therapeutic community" is a fancy way of saying that one of the most effective ways for people in difficulty to work out their problems is to go through a *group* process of self-examination and analysis, guided by sympathetic professionals trained in psychology and allied disciplines. That, without any claims to perfection, but with a striking record of success, is what goes on at the 3320th Retraining Group at Lowry. Five hundred or so retrainees—they are not called prisoners, although technically that is what most of them are for at least part of their stay—pass through the Group each year. More than 9,500 have gone through since 1952, when the program started. Together and individually, they go through a sometimes agonizing process of looking at themselves and each other in terms of their relationship to the Air Force and to the larger society.

### Retraining Phases

The process takes them through a series of phases, starting with orientation, and ending, weeks or months later, with an honor phase during which many of them enjoy virtually all of the privileges enjoyed by other airmen. For those who make it successfully through



the program, the end result is restoration to Air Force duty, with a new assignment in a new unit. In each case, the recommendation is made by a final classifications board made up of uniformed and civilian Group staff members. It should be pointed out that if that board recommends a punitive discharge, the retrainee has the right to appeal. And all such punitive dispositions are subject to review by higher authority.

Throughout the process, the men live and work together as members of teams within the 3320th Retraining Group. They take part in frequent group "rap" sessions in barracks, at which no holds are barred, sessions at which they work each other over psychologically, at which anything can be said, and often is. They are sessions at which souls and psyches are roughly bared. The idea is to get the retrainees to express themselves, to explore themselves, to get what's bugging them off their chests, to get *them* to see why they feel as they do. The group sessions are guided, but not dominated, by Retraining Group staff "team leaders." The team leaders head up the groups of uniformed and military psychological and correctional specialists who combine to make up what amount to "treatment" teams. A principal member of the treatment team is the retrainee himself. He plays an important role in his own rehabilitation.

These teams collectively counsel and cajole the retrainees along the path toward rehabilitation. We use the word "treatment" advisedly. It underscores the philosophy of the 3320th Retraining Group—that the key to rehabilitation is not punishment but rather the creation of an atmosphere in which the troubled individual, with the help of his peers, can develop the

self-awareness and strength to cope with the "system" and not find it necessary to rebel in bizarre or violent ways.

What goes on at the 3320th is not some kind of "brainwashing" program, nor is it designed to build guilt in the minds of the retrainees. The purpose, rather, is to help the individual salvage himself so that he can reenter the Air Force successfully or at least return to the civilian world in better psychological shape than when he arrived.

Not everyone who is sent for retraining at the 3320th makes it back to duty. Some men, for a variety of reasons, don't want to make it, don't want to return to the Air Force. Some make clear that, even with a less-than-honorable discharge, what they want is *out* and only out. Others are classified as having been unwisely accepted into the Air Force. After psychiatric evaluation, they are recommended for release with nonpunitive discharges. In effect, the Air Force admits that it erred in accepting them. In the clinical language of the psychiatrist, something like the following is said and acted upon: "It is clear, as demonstrated in the above history, that ———'s emotional instability existed prior to his entrance into the service, and 'more properly [he] should not have been enlisted.' Considering the short period of time that he has been in the service, the personality structure of ———, the multiple symptoms (phobias, obsessions, and compulsions), and the severe anxiety, it would appear that, in ' . . . the interest of fairness and justice,' a nonpunitive discharge would be appropriate."

Such dispositions by the 3320th are very much in  
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The therapeutic-community concept is the central theme of the 3320th Retraining Group program. Here a retrainee goes over his progress with members of his treatment team. The talk is candid, and the retrainee is encouraged—as an active member himself of the team—to assess his own sit-

uation. He also has available to him individual counseling. He participates, too, in periodic “rap sessions,” at which he and his fellow retrainees explore and articulate, sometimes painfully, the many reasons why they feel as they do and why they think they got into trouble in the Air Force.

the minority. But they do happen. When they do, a summary like the one quoted above represents the recognition of a recruiter’s error *and* of a personal tragedy, the report of a young life that, before military service, had been cruelly distorted by twisted family relationships or an unacceptably ugly environment. Some emotionally upset retrainees, through the psychiatric help that is available at the 3320th, are able to “open up,” and begin to overcome the traumas of their previous lives, and develop the strength to rejoin their peers, society, and the Air Force. As a number of staff people at the 3320th point out, a major problem of many of the retrainees is that they see themselves as having little personal worth. Many have grown up in family environments where they have been told over and over again, “You’ll never amount to anything.” If you are told that often enough, you will begin to believe it.

The annals of the 3320th are replete with examples of young men whose home situations have been next to impossible. One man from an apparently totally uncaring family had been in a home for alcoholics, at the age of fifteen. His mother’s response when he got into difficulty was to tell him to keep out of her life. Some have grown up in homes where they were severely whipped by parents. Others were virtually ignored by their parents. One had fallen into a pattern of fighting because his family expected him constantly to prove himself a man through “whipping” others. The list of stories is endless.

### Rules and Routines

While there is a conscious effort to operate the 3320th as a compassionate institution, the place is by

no means any hotbed of permissiveness. There are rules and routines. And the man who breaks the rules or resists the routine runs the risk of termination of his tour with the Group. With termination, he usually forfeits the chance to complete his Air Force service under honorable conditions.

Nor is the 3320th a rest home. The retrainee’s day starts with reveille at 4:30 a.m. and ends with lights out at 9:00 p.m. He has to sign in and out of the Group. His mail is examined for contraband by the staff, and contraband includes drugs. He marches to chow. He is paid only \$14 per month. He wears no stripe, and his more sophisticated neighbors on the base know the meaning of the unadorned sleeves. And he has to face the fact that if he is restored to duty, he will join his next unit without a stripe, in effect start all over again in the Air Force. He spends a good deal of time in classes immersing himself in and “rapping” about such subjects as “social adjustment” and “marital problems” and “sex education” and “civics” as well as the now-inevitable instruction on the matter of drug abuse, of which more later.

He may also receive remedial academic instruction in English and math, or work toward a high-school equivalency certificate if he needs and wants one. Since, by the rules of the game, he cannot go back to his old outfit, he may be cross-trained in a new skill while at Lowry, a major Air Force technical training center. Or he may spend a good deal of his time working at his original Air Force skill in the Lowry area. Many retrainees work on aircraft at nearby Buckley Field, an Air National Guard facility. Their on-the-job performance is periodically rated by NCOs who may or may not sympathize with the aims of the Retraining Group program. There are still people



who don't believe in second chances. These are some of the lumps that the retrainees may have to take. One of the retrainees' complaints in this connection is that, when an offense is committed elsewhere on the sprawling Lowry compound, it often is automatically assumed that it must have been one of the "cons" who did it.

Usually, there are about 150 retrainees in the 3320th at any given time—out of the approximately 500 Air Force prisoners worldwide. No matter what trouble they were in and no matter how they are getting along in the Group, they seem agreed that the 3320th "is better than jail." Some have obviously gotten a good deal out of the therapeutic experience. One to whom this visitor talked went so far as to say that he wished that all of society were run like the Group.

## Drug Program

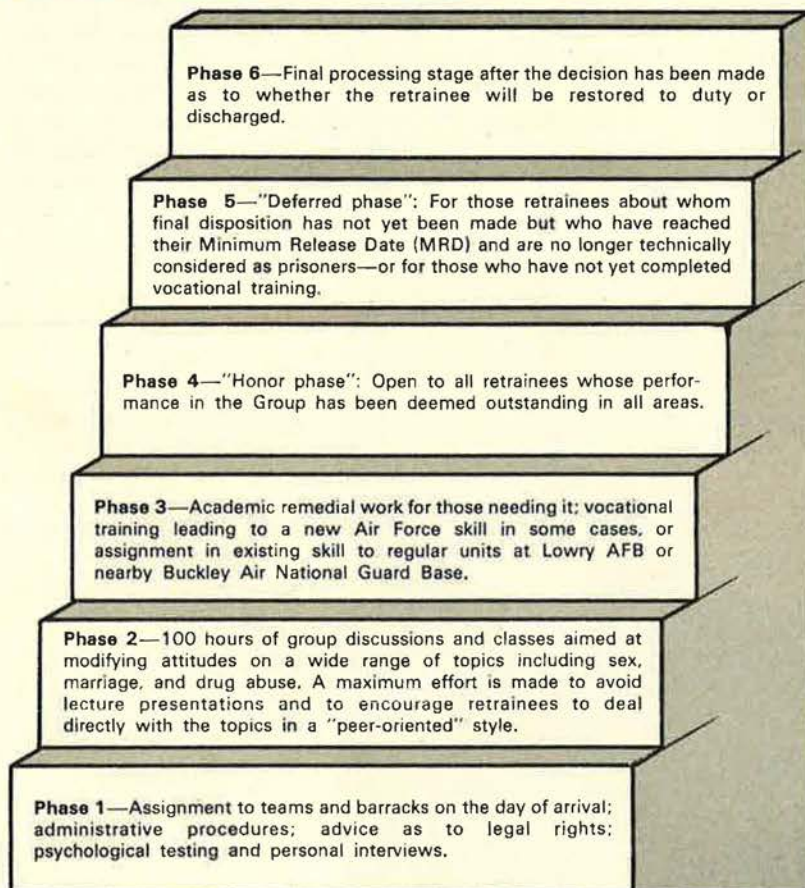
The retrainees are articulate. They have views they are not afraid to express. A case in point: In view of the rising drug-abuse problem in the military, mostly marijuana use and trafficking, the 3320th for some time has been requiring retrainees to attend informational—not preachy—classes on the nature and effects of drugs ranging from "grass" to heroin. But it became clear to some retrainees and to some of the 3320th staff that for the most part the classes were rather ineffective. The problem: Those retrainees who had had drug experience were bored by the familiar, while those unattracted to drugs seemed just as un-

interested; they saw no point to the discussions. Out of this uneasiness emerged a new approach, one designed to *involve the retrainees themselves* in the instruction, particularly those who not only had had drug experience but who also felt that a dangerous complacency about the subject was developing.

With the cooperation of the staff, a group of retrainees who felt strongly about the need for a more meaningful and effective drug-information program started work on a series of original presentations to which 3320th staff and retrainees and other interested people were to be invited. The idea (it was just beginning during this writer's visit to the 3320th) was for the retrainees to recount their own experiences with drugs, not in any sensational manner, but in matter-of-fact terms. They planned also to discuss openly the painful consequences suffered by people close to them.

There was a special kind of courage involved in the retrainees' eagerness to take on this job. It isn't easy to talk about such things. One retrainee was prepared to say publicly that at one time he had pushed heroin to make money and because others in his community were doing it. He was prepared to say that, while he had never used heroin, close relatives of his had gotten hooked as an indirect result of his own activity. The retrainees wanted to talk about such things, not to preach or lecture or to shock, but to help young people, their own peers, to make intelligent, informed, personal decisions about drugs. They also wanted to inform older people on the real-

*(Continued on following page)*



## THE SIX STEPS FOR RETRAINEES AT THE 3320th

Depicted as a series of steps, these are the phases retrainees go through as they proceed toward the hoped-for restoration to duty. The effort is to individualize the program as much as possible. The retrainees stay throughout with the team they start out with, so that by the time their individual cases come up for final recommendations, they will have been dealing with the same group of civilian and military corrections and psychological specialists they started with when they arrived at the 3320th, a major feature of the therapeutic-community idea.

ities of the drug scene. At such an early stage, no one could predict the effectiveness of their approach. But the seriousness with which they were going about their self-assigned task lent obvious promise to the idea.

### Measures of Success

The 3320th Retraining Group has been in business for more than eighteen years. It was located at Amarillo AFB, Tex., until 1967, when it was moved to Lowry. It has gone through many cycles and styles as the staffs have learned new things about rehabilitation. It has, by any standard, an excellent record of successfully returning airmen in trouble to duty.

The Group's research and analysis staff use two measures of success—"short-term" and "long-term." Short-term is based on a check of the retrainee's status six months after he leaves the group for a new Air Force assignment. If, at that point he's still on active duty or has been discharged under honorable conditions, he's counted as a short-term success. The short-term success rate for 1965-1969 was a striking 90.3 percent. That percentage is based on the number of men who returned to duty from the Group. During the same period, some seventy percent of *all* the men who came into the Group were sent back to duty and were counted short-term successes. The latter figure, necessarily smaller, represents what might be called the absolute short-term success figure for the period.

"Long-term" success figures are based on the number of airmen who, after their return to duty, go on to receive honorable discharges in their current enlistments. The latest available long-term success figures are for 1963-1967: 79.2 percent. There is an unavoidable lag in long-term data-gathering because of the varying lengths of time left in the enlistments of those who are restored to duty. But in general, both short and long-term success figures have been steadily climbing in recent years.

The direct cost to the Air Force? Approximately \$28 a day per man, according to Col. Herbert Egender, the 3320th Retraining Group commander. It costs about \$80 a day to keep a man in a conventional stockade, according to Air Force Security Police estimates.

How did this enlightened Air Force approach to correction and rehabilitation come about? The story of the 3320th Retraining Group goes back to the late 1940s and a set of high-level studies of existing rehabilitative techniques. Analysts concluded that rehabilitation procedures of that period were not working very well. The Air Force was unnecessarily losing large numbers of trained people. Also, in the words of a recent overview report produced by a staff member at the 3320th, "It was obvious, to some, that a large percentage of Air Force offenders were not criminals in the usual sense of the word, and that, with appropriate methods of rehabilitation, many of these young men could contribute significantly to the Air Force and to society. Consequently, plans were formulated that would change dramatically prisoner-retraining procedures throughout the Air Force."

It was easier said than done. At first the hope was that four new-style retraining centers would be set up. The plan that was finally approved allowed only one. It opened on February 15, 1952, at Amarillo AFB, Tex. The first retrainee was a thirty-seven-year-old former staff sergeant convicted of being AWOL and under sentence to confinement at hard labor and a bad-conduct discharge. He made it back to duty.

The Retraining Group's mission, since its inception, has been threefold: to rehabilitate, or retrain, and recommend for return to active duty those who "show promise" of being able to perform satisfactorily within the Air Force environment; to recommend the discharge of those retrainees who don't show such promise (it's important to point out that the Group works to recommend the *appropriate* discharge, the fairest disposition); and to do research in such fields as prediction factors for delinquency and disciplinary



Classes, geared heavily to discussion, seminar style, are part of the regimen at the Group. Retrainees study and vent their views freely on subjects ranging from sex in the '70s to drugs. There is also remedial work in English and math available, and many have been able to work toward their high-school equivalency certificates while with the Group.

problems, ways to predict "repeater" potential, improvements in correction practices, and improvements in the Retraining Group's own practices.

The Retraining Group is technically a confinement facility, but the definition is only technical. Individual dignity, the idea of self-worth, self-determination, and what psychologists call "internalized controls," *i.e.*, self-regulation, are the themes of this unusual place. And, as noted earlier, the retrainee is considered a member of the treatment team that is helping him get himself together. A council of retrainees meets regularly with the staff to go over matters of mutual concern.

## The New Approach

Despite the generally good results of the first decade of operation (1952-1962), there was apparently some unease in the late 1950s over the question of whether the program was sufficiently based on *direct* continuing knowledge of and dealing with the retrainees. It was felt that too many retrainees were being recommended for discharge rather than rehabilitation.

The retraining procedure was different in the earlier days: Instead of staying together throughout as members of the same team, the men were moved in groups from training phase to phase and their progress was judged periodically by *different* sets of staff people and a *series* of classification boards. There seemed to be too much rigidity to the process, and newer approaches were sought.

Self-criticism on this score led to a decision to experiment with team-treatment techniques, adapted to the needs of the Retraining Group. This is the method being used now. It should be pointed out that because the therapeutic-community concept is derived from the mental-health techniques, that does not mean that the retrainees are crazy. Nothing of the sort.

## How They Get There

There are several ways an airman in trouble can be assigned to the 3320th. Most are sent to the 3320th by the commanding officer of the base where they stood trial and were sentenced. Such decisions are usually made during the local trial-review process. The man is asked if he wants to be sent to the 3320th. But, in practice, the decision is not really his.

Airmen can also be sent to the 3320th by other routes. They can be sent by recommendation of Prisoner Disposition Boards at the base where they are serving a court-martial sentence. About ninety-eight percent of the 3320th's retrainees come by the two routes described above.

A few arrive via other routes. Airmen under long sentences or who have been convicted of quite serious crimes and are imprisoned at the US Disciplinary Barracks at Fort Leavenworth, Kan., can be recommended to the Group by the Clemency Board at Leavenworth. Also, airmen with long sentences or who have a punitive (bad-conduct or dishonorable) discharge pending and whose cases are automatically reviewed by the Air Force Board of Review in Washington can be recommended to the 3320th. In such cases, the Judge Advocate General can direct the transfer

of a prisoner to the 3320th. Also, the Secretary of the Air Force or the Director of the Air Force Security Police can direct that a man be sent to the Group. Also, the man himself can ask to be sent to the Group.

There is a set of general guidelines on the matter of who should or should not be sent to the Retraining Group. They are supposed to be used with balance so that *one* plus or minus item does not determine the decision as to eligibility for retraining. "Favorable factors" include: attitude, civilian background, physical profile, intelligence, emotional qualities, and the Air Force's investment in the man's training and experience.

"Minus" factors include: a record of serious crimes against person or property, a habitual record of vice offenses, a history of severe psychoneurotic disorders, defective intelligence or emotional patterns, habitual record of delinquency in civilian life, and habitual inability to adapt to military life and conform to military standards.

Obviously, these cold-sounding guidelines are designed to give the Group staff some confidence from the beginning that the Group will have a fighting chance to succeed in its efforts.

## Search for Adjustment

The Group receives very few people who've committed capital or heinous crimes, but a small per-  
(Continued on following page)

### THE DRUG SCENE AT THE GROUP

There is no question that drug abuse is an increasing problem in the Air Force. At the 3320th, drug abuse is now listed as a separate offense category, although figures as to drug offenders are available going back to 1952. On September 23, 1970, for example, 20.6 percent of the 165 retrainees assigned to the Group were there as a result of drug offenses. From January 1, 1970, to September 23, 1970, fifty-one out of the 342 retrainees assigned to the Group during that period were there as a result of drug-abuse convictions, or 14.9 percent. "Marijuana-only" offenses predominated (thirty-nine out of fifty-one). The remaining twelve out of the fifty-one represented a smattering of convictions involving other drugs: LSD, heroin, marijuana and LSD, marijuana and amphetamines, marijuana and mescaline, and heroin and hashish. The January-September 1970 14.9 percent figure is in marked contrast to the long-term figures from 1952 to 1970. Out of 9,552 retrainees who have gone through the Group since 1952, the total number of drug offenders was 251 or 2.6 percent. The "short-term" rehabilitation success figure for that long period is 95.2 percent and the "long-term" success rate is 86.3 percent. The 3320th does not accept known addicts because it is not a drug-treatment facility. The main point is that obviously the drug-abuse problem is increasing, and that, as Air Force officials monitoring the problem point out, what we are seeing is probably only the top of the iceberg.

centage has been convicted of offenses such as manslaughter, robbery, and use or possession of drugs (mostly marijuana).

Essentially, the retrainees are not really serious offenders by civilian standards. But they do have problems that lead to inadequate adjustment to society and to their environment, and they are in danger of falling into criminal patterns.

On the whole, the retrainees are from the middle class, although some come from poverty backgrounds. As noted, many come to the Air Force from broken homes and were reared by only one parent. A father figure has often been lacking. Some are high-school dropouts, but not the majority. Many perceive their lives as useless or a failure. They often bring this sense of failure with them into the Air Force. They are often confused and immature, with little or no internal controls, sense of responsibility, sense of achievement, or sense of self-worth. They are, by



Even with their very long duty day, many retrainees take advantage of the Group's Hobby Shop. They work on projects ranging from woodwork to pottery by way of relaxation.

and large, definitely not mentally ill and are of normal intelligence. The prognosis for such people is very good. The Group's effort is not to change their personalities but to change their behavior.

The clinical words above are, of course, by necessity, generalizations. Each person at the Group is very much an individual, and the successive waves of retrainees are, of course, reflective of the times and society in which they live. There are current trends toward longer stays at the Group. There is a significant increase in drug-offenders (*see box*). There is an increase in the number of retrainees *not* facing punitive discharges. There is a discernible increase in the number of high-school graduates (eighty-five percent in 1969). There is also an increase of so-called Category IV airmen, a figure connected with the fact that the Air Force has taken part in the Project 100,000 program (*see AF/SD, January '68*) to accept into service young men who previously had been barred for lack of educational achievement or other shortfall reasons.

These trends are based on 1969 statistics, which were drawn up to compare with the previous 1964-1968 "base-line" period.

## People, Not Statistics

But statistics are cold, dead things, even if they do give a picture of reality. The real story at the 3320th Retraining Group is the men themselves. Talking to them is a revelation and an affirmation. They *are* representative of the youth of 1970. They ask hard questions of the visitor and of each other. They want to know, some of them, why they have to go to Vietnam if ordered. They want to know why society permits booze and tobacco but punishes marijuana, even as they acknowledge that it is not totally clear whether marijuana can have dangerous lasting effects. They are somewhat ambivalent on the subject. One airman, not in on a drug-bust, advocates legalization and quality control of pot while at the same time citing evidence he's seen of potential liver damage from marijuana. They want to know how the individual in the military situation can cope with palpable injustice or arbitrariness. This visitor was asked that very question. It's not easy to answer. From all appearances—and they are candid in conversation—most retrainees want to clean their slates. They are conscious of the complexities of a society that does not forgive even the first offender easily. Some of them are willing to go all the way with the Group therapeutic process (the airman who commented that he wished all society were like the Group). Some are willing to go only so far as it's necessary to "work the system," to get out of their binds, and cleanly out of the Air Force, for "image" purposes.

In that connection, the Group staff is conscious of something new on the horizon these days, something that affects the "carrot" portion of the process—the fact that these days a less-than-honorable military discharge may be more socially acceptable than it once was. The retrainees also seem conscious of the fact that whether they AWOLed, fooled with drugs, or committed assault or larceny, they were likely to get rapped for it eventually. But why they did what they did is a question that most of them do seem to be trying to work out, each in his own way, and quite un sentimentally.

There is nothing maudlin about the 3320th. It is a place where the Air Force, in an enlightened and self-critical manner, is trying to do two things: get back some of its investment in time and training that would otherwise probably go down the drain, while at the same time helping individuals to survive and maybe even thrive in what can be a difficult set of environments, the Air Force and the larger society in which we all live. The record of the Group from its imaginative inception back in 1952 to right now indicates that both purposes are being served to a significant degree.

What's been going on at the 3320th Retraining Group is beginning to get national recognition. Within the Air Force, there are movements to expand the program. If that happens, the credit will go to the retrainees and the staff at the 3320th who have proved their motto: *Fieri Potest*—"It Can Be Done."—END

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## **AIR FORCE Magazine**

1750 Pennsylvania Avenue, N.W.,  
Washington, D.C. 20006



# Convention/'70

The men, the machines, and the central issues of USAF aerospace power took the Washington, D.C., spotlight during the Air Force Association's twenty-fourth National Convention, in September—one of the most dynamic and productive meetings of its kind. Because of the importance of the proceedings, AIR FORCE Magazine, on the following pages, presents a detailed account of the Convention. Together, these reports will give readers a feeling for the unique scope of . . .

## AFA's Twenty-fourth National Convention A KALEIDOSCOPE OF THE MEN

By Edgar E. Ulsamer

ASSOCIATE EDITOR, AIR FORCE MAGAZINE

**M**EETING at a time when, as President George D. Hardy put it, "the shadows of national peril lengthen," the twenty-fourth National Convention of the Air Force Association, held September 21-24 in Washington, D.C., centered on the principal defense problem facing the nation—the mounting Soviet threat, compounded by a declining US defense effort.

The 1970 event consolidated AFA's previously separate Fall Meeting and Aerospace Development Briefings with the Association's National Convention, to broaden both the scope and impact of the program. An attendance of more than 5,000 and overflow crowds at the various seminars as well as at the industrial exhibits attested to the effectiveness of the new formula.

From the opening ceremonies to the concluding seminar, the Convention programming and principal speakers highlighted the rapid expansion of Soviet offensive strategic capabilities and the sharp increase in Russian military-oriented research and development. Capstone of these efforts was the unanimous adoption by the elected delegates to the Convention of a Statement of Policy, which addressed the declining US strategic posture forcefully and constructively (see page 8). Its fundamental postulate was that "Americans—informed of the facts and given a clear statement of national strategy and objectives—will sacrifice as needed to maintain a world environment of security, freedom, and peace."

The delegates, therefore, urged the national leadership to "disclose—fully, frankly, and publicly—the deteriorating defense posture of the United States as it relates to the expanding power of the Soviet Union," with the public's need to know constituting the para-

mount consideration. As such, the Statement and theme of the Convention represent the culmination of what was AFA's primary concern and central activity over the past year, *i.e.*, informing the American people of the high momentum in Soviet strategic missile deployment and development, backed up by a military R&D program significantly greater than that of the United States.

### The Keynote Address

The Convention's keynote speaker, Assistant Secretary of Defense for Public Affairs Daniel Z. Henkin, focused on the American people's right to know, and the government's obligation to inform the public of all matters pertaining to defense "consistent with the need" for security. "It is," he said, "my deep and abiding conviction that nothing can contribute more to the enduring strength and freedom of our nation than a free exchange of information between the government and all citizens."

Mr. Henkin went on to explain that, "if the Soviet Navy conducts exercises involving more than 200 ships in four oceans and nine seas, as was the case in Exercise OKEAN, the American public, in my view, has a right to know about this unprecedented fleet activity. And, if the Soviet Navy deploys a task force to the Caribbean for the third time in just over a year, we have the obligation to inform the public that the Soviet Union is demonstrating an apparent intention to achieve a capability for sustained surface and submarine operations in the Caribbean close by our shores. Such an intention is of obvious significance in terms of defense planning."

In the same vein, Mr. Henkin said during the Con-



A prominent Convention event was the special luncheon honoring the Chief of Staff of the Air Force. Here Gen-

eral Ryan is flanked by Air Force commanders at the head table. AFA President George Hardy acted as toastmaster.

## AND MACHINES OF US AEROSPACE

vention's Opening Ceremonies, "If the Soviet Union is surging ahead with an aircraft research and development program that is turning out a new military aircraft model about once each eighteen months, then I believe, within the obvious constraints of security, the public has a right to know." Conversely, he pointed out that the American people are also entitled to know that "in the last three years, [US] defense spending has declined at an average annual rate of \$2.1 billion."

And, he said, they should understand that "other federal spending has gone up each of the [preceding] three years by an average of \$22.9 billion. Based on constant dollars, the Department of Defense has cut by \$17.3 billion the amount of military spending from Fiscal Year '68 level to the current FY '71 level. Thus, on the basis of the buying power of constant dollars, defense spending, which peaked at \$89.1 billion in FY '68, is down by twenty percent in FY '71," resulting in a "rock-bottom, bare-bones defense budget."

Mr. Henkin refuted "those who contend that, when we make information available concerning such matters as Soviet or Communist Chinese weapons developments and R&D acceleration, we do this because of its impact on congressional budget deliberations." But carrying this kind of erroneous allegation to its logical conclusion would, he said, lead to the suppression of virtually all news concerning defense matters "for months and months."

### Addresses by Air Force Leaders

On the following day, at a luncheon held in his honor, USAF Chief of Staff Gen. John D. Ryan concluded his broad-ranging policy speech (see page 72) by stating that only through meeting the growing challenge presented by the thrust of Soviet technology "effectively can we ensure that aerospace continues to be an expanding matrix for deterrence—not a corridor of hostile aggression. That is a mission of hope and high

purpose. It demands . . . all of the ability and enthusiasm that we can muster. I am glad to see both of these assets so much in evidence at this AFA Convention."

On Wednesday, the third day of the Convention, Air Force Secretary Robert C. Seamans, Jr., told a  
(Continued on following page)

THE WHITE HOUSE  
WASHINGTON

September 18, 1970

Dear Mr. Hardy:

On the occasion of the 1970 annual convention of the Air Force Association, I send my greetings to all your members.

For the past twenty-four years of your association's history, you have successfully met the growing challenges to aerospace technology and admirably served the need to enlist men and women of exceptional talent, energy and loyalty in the military service.

I am proud to salute your contributions to the strength and security of our country and to the cause of peace for all men.

Sincerely,

Mr. George D. Hardy  
President  
The Air Force Association  
Suite 400  
1750 Pennsylvania Avenue, NW.  
Washington, D. C. 20006



Air Force Secretary Seamans showed great interest in the exhibits of the Aerospace Development Briefings, which attracted an attendance of some 5,000 military, government, and industry personnel.

General Ryan, shown here during his tour of the Aerospace Development Briefings, categorized this Convention program as "a place not merely to watch but to learn and broaden one's understanding of the aerospace world."



luncheon gathering of some 1,500 that the Air Force, in order to maintain a credible deterrent, must modernize its strategic offensive and defensive forces to cope with the growing Soviet strategic forces (*see page 68*).

He singled out "two developments [which] increase my concern in this regard: first, the increased numbers and total payload of Soviet ICBMs; and second, the Soviet deployment of an initial ABM system and continued extensive ABM research. The combined effect," he said, "could be a considerable reduction in the effectiveness of both our land- and sea-based missiles."

Secretary Seamans also called attention to the fact that, by projecting trends in US and Soviet tactical air capabilities into the 1970s and '80s, "we see that the family of Soviet fighters is becoming superior to our own." He added that "in the area of air superiority, skill and determination can go only so far in compensating for an aging system." But an essential factor in the Air Force's ability to deter local wars in the future, Dr. Seamans said, is "tactical airpower backed by a full complement of Reserve and Guard Forces."

Conversely, he explained that "excessive tactical



weakness on our part would be provocative since it could invite military adventurism by potential adversaries." He emphasized that these considerations were the driving force behind the Air Force's F-15 air-superiority fighter program.

In order to compensate for the growing Soviet missile threat, Dr. Seamans said, "we are deploying ABM protection for our missile fields and strengthening the penetration capability of our missiles with the deployment of MIRV." The Secretary added the warning, however, that "there would be an inherent risk" if deterrence were dependent on missiles alone.

"To use a very rough analogy," he said, "two legs of a three-legged stool do not give us the same stability [as would three], even if greatly strengthened and enlarged. A dispersed manned bomber force, having quick reaction, is the third leg. It might be possible to undermine the effectiveness of either missiles or bombers, but to counter both at the same time would be a vastly more difficult problem."

For this reason, Dr. Seamans stressed, "we must retain this stabilizing capability for the indefinite future. The B-1 gives us an improved system to do the job and represents the most economically feasible means to achieve this end." Pointing at the "decade of lead time involved," he said, "we must expedite the development of this aircraft." In addressing the problem of declining defense budgets and attendant reduction in civilian and military personnel, as well as in the size of aerospace industry, he stated that "while there are indications that this rate of decline may flatten out after the first of the year, the fact remains that considerable technological and scientific expertise may have been permanently lost to the aerospace community."

The challenge facing the Air Force at this time, Secretary Seamans stressed, "is the maintenance of defense forces which are strong enough to keep the peace, but, at the same time, do not unnecessarily absorb resources we need for progress in other areas."

"Although the active Air Force may be smaller in such a situation, I am convinced that our deterrent capability during the next decade will be effective. I foresee an Air Force that is leaner, more mobile, more streamlined, better equipped, trained, and motivated, and more volunteer oriented," he said.

In his closing remarks, Secretary Seamans explained



Secretary Seamans made an important speech at the luncheon in his honor. The event was emceed by Capt. David L. Hosley, head of AFA's Junior Officer Advisory Council.

that, in order to meet "the growing threat, the United States is reevaluating our long-range goals and attempting to bring our force structures and our short-range goals into harmony with them. This process does not involve laying down our world leadership, or sacrificing the interests of allies and friends. This process will take time, however; it involves frank public discussion, and I urge you in the Air Force Association to continue your signal efforts in stimulating constructive public involvement in the subject of our national security."

AFA did just that in the seminar program that followed Secretary Seamans' remarks. The seminar featured the Director of Defense Research and Engineering of the Department of Defense, Dr. John S. Foster, Jr. His presentation on the Soviet threat was one of the most comprehensive documentations of growing Soviet strategic capabilities and burgeoning military-oriented research and development ever presented publicly. Because of the importance of his remarks and the significance of the seminar, it is covered separately in this issue, beginning on pages 77 and 82.

### Kaleidoscope of People and Machines

Among the many diverse and stimulating activities of the Convention, which ranged from a highly informative meeting concerning Air National Guard and Air Force Reserve issues to a dramatic and emotionally gripping seminar about the plight of the American MIAs and POWs in Southeast Asia (both reported in detail elsewhere in this issue—page 104 for Guard and Reserve matters and page 91 for MIA/POW coverage), were the widely acclaimed Aerospace Development Briefings. Covered comprehensively on page 96, this event drew extensive praise by both Secretary Seamans and General Ryan.

The Chief of Staff underscored the importance of these briefings, designed to update Washington and Air Force leaders on the latest developments in the aerospace state of the art, when he stated that "the Aerospace Briefings, 1970 vintage, have hit the same high

*(Continued on following page)*



H. H. Arnold Trophy winners Collins and Aldrin (left) enjoy a chat with toastmaster Joe Higgins and Gen. Carl Spaatz, first AF Chief of Staff, before the Dinner Dance.



A festive dinner honoring the Air Force's twelve Outstanding Airmen and their wives was one of the Convention's special programs. The award winners were selected by an Air Force board at the Pentagon from a large number of nominations submitted from throughout the Air Force. The event featured the Air Force's Vice Chief of Staff, Gen. John C. Meyer, as principal speaker. The award winners are shown here with TV personality Joe Higgins, in a playful mood.

standard of excellence that I have observed here in the past." Addressing a Convention gathering of some 350 government and industry executives, General Ryan said: "What impresses me most, I think, is the usefulness of this kind of gathering together of equipment, knowledge, and know-how. It is a place not merely to watch but to learn and broaden one's understanding of the aerospace world." In a similar fashion, Secretary Seamans termed this program "one of the Air Force Association's important contributions toward greater public understanding of the vital national security issue now before us."

### Outstanding Airmen Dinner

"The annual Air Force Association Convention focuses attention on a variety of significant Air Force activities and achievements. But to my mind, the single most important event at this Convention is tonight's program. This is where we honor our Outstanding Airmen and their wives. I am honored to have the opportunity to speak at such an occasion and I want to express my appreciation to the Air Force Association for making this presentation possible."

These opening remarks by the Vice Chief of Staff of the United States Air Force, Gen. John C. Meyer, at the Outstanding Airmen Dinner, a traditional human high point of any AFA Convention, were especially fitting in 1970. The twelve guests of honor, accompanied by their wives, were selected by a special Air Force board from a large number of nominations submitted by commands throughout the Air Force. The 1970 Outstanding Airmen were:

**CMSgt. Bennie M. Bauman**  
Data Systems Superintendent  
Air Force Accounting and Finance Center  
Denver, Colo.

**MSgt. Sidney J. Brooks**  
Inventory Management Supervisor  
USAF Academy, Colo.

**SSgt. Henry C. Frisby**  
Administrative Specialist  
111th Communications Flight  
Pennsylvania Air National Guard  
Willow Grove Naval Air Station, Pa.

**CMSgt. Olen J. Jones**  
Wing Chief Master Sergeant  
63d Military Airlift Wing  
Norton AFB, Calif.

**SMSgt. Joseph W. Knox**  
Aircraft Sensor Systems Superintendent  
6985th Security Squadron  
Eielson AFB, Alaska

**SMSgt. Harold M. Kuyper**  
Technical Training Instructor  
3361st Instructor Squadron  
Chanute AFB, Ill.

**TSgt. Edgar C. Merritt**  
Procurement Supervisor  
Aeronautical Systems Division  
Wright-Patterson AFB, Ohio

**SMSgt. Joseph M. D. Ouellette**  
Missile Electronics Maintenance Superintendent  
37th Air Defense Missile Squadron  
Kincheloe AFB, Mich.

**MSgt. William F. Redfield**  
Air Traffic Control Superintendent  
1st Mobile Communications Group  
Clark AB, Republic of Philippines

**TSgt. Robert G. Schemenauer**  
Missile Electronic Equipment Technician  
3901st Strategic Missile Evaluation Squadron  
Vandenberg AFB, Calif.

Mrs. George D. Hardy (second from right), wife of AFA's President, hosted a special dinner for these six wives of USAF MIA/POWs, also attended by Mrs. John D. Ryan (far left), Mrs. Robert C. Seamans, Jr. (fifth from left), and Mrs. Henry L. Hogan, III, (extreme right), wife of the Air Force's Director of Information.



**SMSgt. Walter E. Wade**  
Ground Radio Communications Superintendent  
4629th Support Squadron  
Hamilton AFB, Calif.

**CMSgt. Freddie J. Walton**  
Director of Instruction  
ADC NCO Academy  
Hamilton AFB, Calif.

As the event's keynote speaker, General Meyer said these twelve airmen "typify the high levels of accomplishments sought by many but achieved by few."

"As I reviewed their records," General Meyer said, "I searched for the common threads which set these men apart. Several things struck me as being characteristic of their careers. First, and not surprising, I found them to be true professionals in every sense of the word. Regardless of the individual career field, each is an acknowledged expert in his specialty.

"Second, and even more important, I found them to be leaders. They are the men who have stood in the forefront and who are the vanguard of the Air Force. Whether it be advancing the technical aspects of their professions or guiding the work of others, these men have shown the way.

"And third, I detect a sense of involvement. In their work groups, in the Air Force, and in their communities, they have exhibited a spirit of service to their fellow men. Their careers are uniformly marked by an intense desire to get involved, to improve themselves and their fellow human beings, and to make a better Air Force."

Addressing himself to the wider audience of all the Air Force's NCOs, General Meyer discussed the importance of preparing young airmen for future responsibilities, premised on "the kind of understanding that can only come from a genuine concern for our young people and an appreciation of their attitudes—no matter how fast-changing they might be.

"To get the job done, the NCO will have to lead and provide counsel. He will have to shape attitudes while being sensitive to diverse beliefs. He will have to meet the challenge of this new generation," General Meyer said.

As a result, he added, growing demands are being placed on the Air Force's noncommissioned officers "over a broader range of responsibilities. Not only must they be expert technicians and managers, dedicated to getting the job done, but they must also be sensitive and involved personnel men."

*(Continued on following page)*

**Air Force Vice Chief of Staff Gen. John C. Meyer, keynote speaker at the Outstanding Airmen Dinner, is shown here in conversation with SSgt. and Mrs. Henry C. Frisby. One of the Air Force's twelve Outstanding Airmen for 1970, Sergeant Frisby is an administrative specialist assigned to the 111th Communications Flight, Pennsylvania Air National Guard.**



AFA's highest annual award, the H. H. Arnold Trophy, was presented to the Apollo-11 industry-government-astro-naut team by President Hardy. From left, Mr. Hardy; J. L. Atwood, former President of North American Rockwell; Lt. Gen. Samuel C. Phillips, former Apollo Program Director; and Col. Michael Collins and Col. Edwin E. Aldrin, representing the flight crew.



AFA President Hardy presented the twelve Outstanding Airmen with the Association's Outstanding Airman Award.

### Toward the Grand Finale

The Convention's two formal luncheons in tribute to the Secretary and the Chief of Staff of the Air Force served again as fitting backdrops for a series of important Air Force Association awards, presented on an alternating basis by the Association's Chairman of the Board Jess Larson and President Hardy (*see the full list of awards on the opposite page*).

In terms of formal programming, the Convention's

concluding event and grand finale was the Air Force Anniversary Dinner Dance, dramatically opened by the introduction of the latest, living USAF recipient of the Medal of Honor, Capt. James P. Fleming. The festive setting, involving a black-tie audience of more than 2,200, served also as the occasion for presenting the Air Force Association's six highest annual awards. President Hardy officiated with the able assistance of the evening's toastmaster, TV personality and veteran AFAer Joe Higgins.

This program was a fitting finale for the twenty-fourth National Convention of the Air Force Association, which more than lived up to its advance billing as the top aerospace event of the year.—END

David C. Schilling Trophy for outstanding achievements in the field of flight was awarded to Maj. James M. Rhodes for superior performance as a test pilot.



AFA's top science and engineering award was presented to Maj. Gen. K. W. Schultz for superior management of the Minuteman III program.



Gill Robb Wilson Trophy for Arts and Letters was presented to Louis R. Stockstill for his article on MIA/POWs, "The Forgotten Americans of the Vietnam War."

Hoyt S. Vandenberg Trophy for Aerospace Education was accepted by Lt. Gen. S. W. Wells, USAF's Inspector General, on behalf of the Directorate of Aerospace Safety.



Thomas P. Gerity Trophy (Systems and Logistics) was awarded to Col. Levin P. Tull, Office of DCS/Systems and Logistics, Hq. USAF.



AFA Board Chairman Jess Larson presented the Logistics Junior Management Award to Mrs. Virginia H. Platten, of AFLC's Sacramento Air Materiel Area.

# AWARDS AT THE 1970 AIR FORCE ASSOCIATION NATIONAL CONVENTION

## AIRPOWER TROPHIES

- H. H. Arnold Trophy (Aerospace Men of the Year)**—To the Apollo-11 team, for man's first landing on the moon: Neil Armstrong, Col. Edwin E. Aldrin, and Col. Michael Collins, representing the flight crew; Lt. Gen. Samuel C. Phillips, representing NASA and the Air Force; and J. L. Atwood, former president of North American Rockwell Corp., representing the aerospace industry.
- David C. Schilling Trophy (for Flight)**—To Maj. James M. Rhodes, Jr., for demonstrating superior qualities as a test pilot, research engineer, instructor, and scholar, while stationed at Edwards AFB, Calif.
- Theodore von Kármán Trophy (for Science and Engineering)**—To Maj. Gen. Kenneth W. Schultz, for superior management in directing the Air Force-industry team responsible for the development and deployment of Minuteman III.
- Gill Robb Wilson Trophy (for Arts and Letters)**—To Louis R. Stockstill, for his article "The Forgotten Americans of the Vietnam War" (AF/SD, Oct. '69), which achieved a dramatic breakthrough in public awareness of the plight of American prisoners of war in Southeast Asia.
- Hoyt S. Vandenberg Trophy (for Aerospace Education)**—To the Directorate of Aerospace Safety, Office of the Inspector General, Hq. USAF, for the development and successful application of the Air Force Driver Safety Education course.
- General Thomas P. Gerry Memorial Trophy (for Systems and Logistics)**—To Col. Levin P. Tull, Deputy Director of Supply and Services, DCS/Systems and Logistics, Hq. USAF, for dynamic leadership and professional competence, contributing significantly to Supply and Services support for USAF units worldwide.

## AIR FORCE ASSOCIATION CITATIONS OF HONOR

- SSgt. Glyn W. Barron**, 2851st Air Base Group, Kelly AFB, Tex., for demonstrating unusual skill in disposing of contaminated waste resulting from a B-52 crash in Greenland.
- Col. Leo I. Beinhorn**, Chief, Internal Information Division, Office of Information, Hq. USAF, for initiating and directing the development of the motion-picture series "Air Force Now," aimed at establishing relevant communication with young people in the Air Force.
- Maj. Robert O. Bissey**, 1131st Special Activities Wing, Nha Trang AB, Vietnam, in recognition of his being named "Air Force Personnel Manager of the Year" for 1969, for his work under the DCS/Personnel, at Hq. Aerospace Defense Command.
- Chaplain (Maj.) James J. Cain**, 1072d Medical Services Squadron, Walter Reed Army Hospital, Washington, D.C., for service beyond the call of duty in counseling and comforting servicemen during an intense all-night attack on an air base in Southeast Asia.
- Maj. Ryland Dreibelbis**, 37th Aerospace Rescue and Recovery Squadron, APO San Francisco 96337, for skill and courage displayed as a helicopter pilot in rescuing three servicemen stranded on a mountain peak at an altitude of 12,500 feet.
- Mr. Robert L. Feik**, Director of Operations Research Analysis, Hq. AFCS, Richards-Gebaur AFB, Mo., in recognition of his selection as "Outstanding Civilian Employee of the Year" for his work as Chief Scientist of AFCS.
- Capt. Lynn O. High**, 3573d Pilot Training Squadron, Vance AFB, Okla., for exceptional leadership, courage, and skill as a tactical fighter pilot, saving countless American lives during 240 combat missions in Southeast Asia.
- Maj. Harry Stewart**, 380th Air Refueling Squadron, Plattsburgh AFB, N.Y., for conspicuous professionalism as a KC-135 aircraft commander involved in extremely critical refueling operations, saving four F-105s in Southeast Asia.

## AIR NATIONAL GUARD AND AIR FORCE RESERVE TROPHIES

- Earl T. Ricks Memorial Trophy for 1970**—To Capt. Robert H. Harmon, 103d Fighter Group, Bradley Field, Conn., for exceptional skill, courage, and astute display of professionalism.
- Air National Guard Unit Trophy for 1969**—To the 130th Special Operations Squadron, Kanawha Airport, W. Va., for outstanding performance during 1969.

**Air National Guard Unit Trophy for 1970**—To the 142d Fighter Group, Portland International Airport, Ore., for outstanding performance during 1970.

**Air Force Reserve Unit Trophy**—To the 446th Tactical Airlift Wing, Ellington AFB, Tex., named the "Outstanding Air Force Reserve Unit of the Year."

**President's Trophy for the Air Force Reserve**—To the 95th Tactical Airlift Squadron, Milwaukee, Wis., named the "Outstanding Air Reserve Flight Crew of the Year."

## AFA/USAF MANAGEMENT AWARDS

- AFA/AFCL Logistics Executive Management Award**—To Col. John W. Brock, Director of Materiel Management, Oklahoma City AMA, Tinker AFB, Okla., for logistics management of presidential and worldwide command post fleets of aircraft.
- AFA/AFCL Logistics Middle Management Award**—To Maj. Donald P. Litke, Director of Propulsion and Auxiliary Power Systems, DCS/Materiel Management, Hq. AFCL, Wright-Patterson AFB, Ohio, for logistics management of worldwide logistics support for critical propulsion systems.
- AFA/AFCL Logistics Junior Management Award**—To Mrs. Virginia H. Platten, Defense/Tactical Electronics Systems Management Division, Directorate of Materiel Management, Sacramento AMA, McClellan AFB, Calif., for logistics management of BUIC command and control systems spanning the US and Canada.
- AFA/AFSC Distinguished Award for Management**—To Brig. Gen. Raymond A. Gilbert, USAF (Ret.), National Aeronautics and Space Council, for executive management while on active duty as Director of Laboratories for AFSC.
- AFA/AFSC Meritorious Award for Support Management**—To Col. Donald R. Klang, Air War College, Maxwell AFB, Ala., for demonstrating exceptionally meritorious management ability as Deputy for Acquisition, Armament Development and Test Center, Eglin AFB, Fla.
- AFA/AFSC Meritorious Award for Program Management**—To Col. Harold W. Stoneberger, Office of the Commander, Naval Air Systems Command, for exemplary program management on the A-7D aircraft.

## SPECIAL CITATIONS

- Foreign Liaison Division, Hq. USAF**, in recognition of the Division's outstanding effort in maintaining close and effective liaison with air attachés representing nations around the world, thereby making a major contribution to international understanding of the policies and doctrines of the United States and USAF.
- Maj. Gen. A. J. Beck**, Warner Robins AMA, Robins AFB, Ga., in recognition of his outstanding support of local and state units of the Air Force Association and particularly his energetic efforts which contributed significantly to the Middle Georgia Chapter's being named AFA's Outstanding Unit in the field of Community Relations in 1969-70.
- Maj. Melvin A. Bailey**, Office of Information, Hq. USAF, for his outstanding service to the Air Force Association and its Chapters, and for his contributions to the success of many Air Force Association national meetings.

## AFA CERTIFICATES OF HONOR

- National League of Families of American Prisoners and Missing in Southeast Asia**, for their initiative and untiring efforts to keep the MIA/POW problem constantly before government officials and the public.
- Fairchild Hiller Corp.**, Germantown, Md., for leading all of industry in publicizing the plight of the MIA/POWs and in providing supporting materials to the families.
- Fort-Worth, Tex., Star-Telegram**, for continuing and comprehensive coverage of the MIA/POW problem.
- Pottstown, Pa., Mercury**, for its outstanding and innovative support in urging readers to direct a letter-writing campaign to Hanoi.
- US Jaycees**, for the support given to MIA/POW families across the country and for the letter-writing and petition-signing drives conducted by Jaycees.
- Col. Harry G. Howton, USAF (Ret.)**, Fort Walton Beach, Fla., for his effective and inspirational volunteer work as Area Coordinator for the Citizens Assistance Program, Fort Walton Beach, Fla., and his work with the Eglin Chapter of AFA.



To meet a growing threat, while at the same time examining the potential of arms-control agreements and facing up to the needs for economy, the Air Force and defense community are concentrating on approaches that will ensure our security and avoid any significant aerospace gap . . .

# Planning the Total-Force Concept for the 1970s

By the Hon. Robert C. Seamans, Jr.

THE SECRETARY OF THE AIR FORCE

**L**AST year at the Air Force Association's fall meeting I focused upon the serious management problem of cost growth, and suggested some ways to help solve it. I discussed such considerations as improving our cost-estimating capabilities, better identifying risk, establishing milestone review points, and avoiding expensive "extras" that are not really essen-



" . . . reevaluating our goals . . . involves frank public discussion. I urge you to continue your efforts in stimulating public involvement . . . in our nation's security."

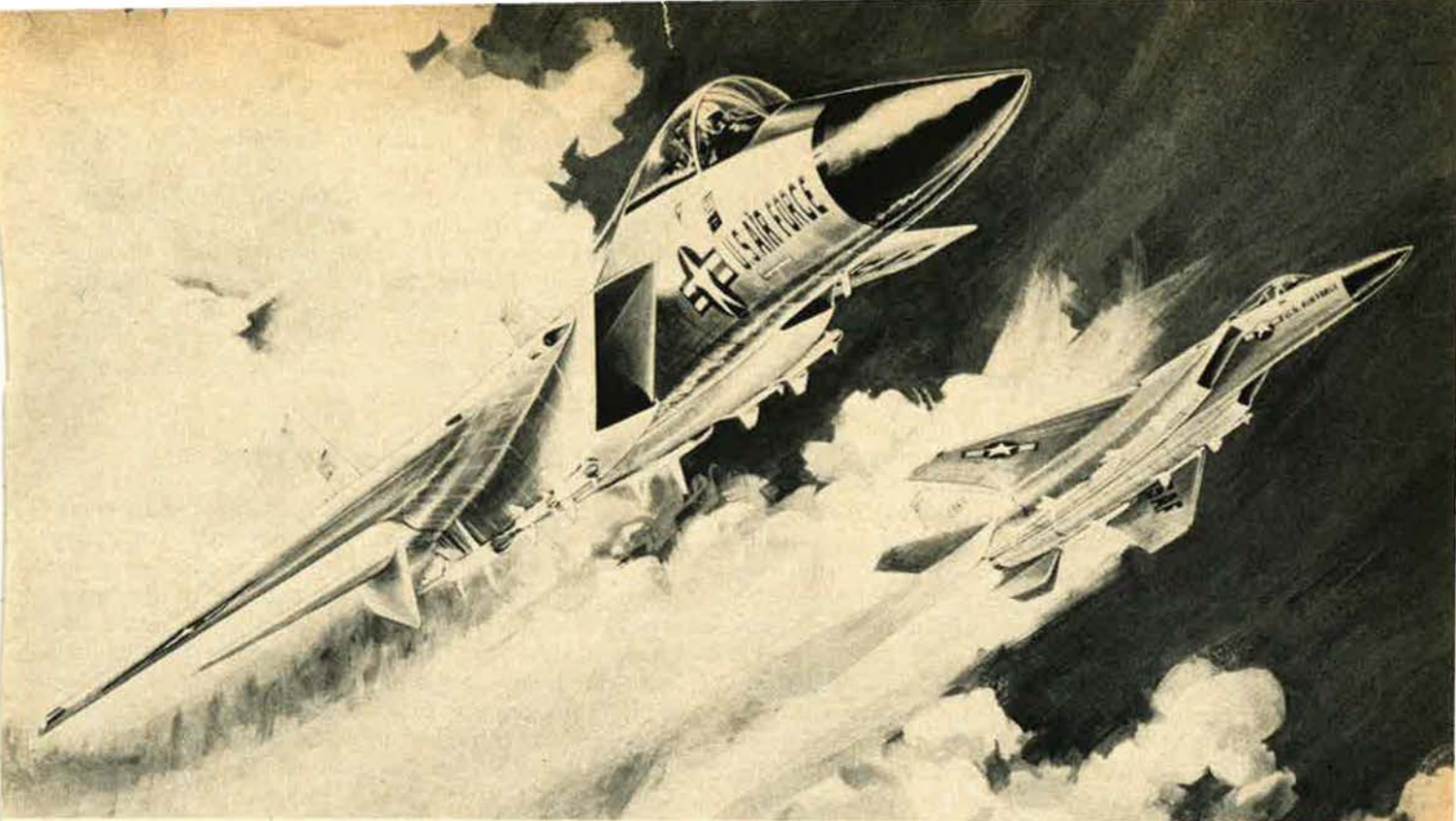
tial to satisfactory system performance. Finally, in both the negotiation of a contract and management phases of a program, I urged that we move in the direction of decentralization. I believe that the approach I outlined then is still relevant and valid. We must continue to remove the obstacles that remain, in order to achieve the management goals we all support.

The Nixon Administration, as you know, is in the process of reexamining both domestic and national security policy. The on-going comprehensive investigations by the National Security Council will continue, and they will attempt to be as precise as is possible in redetermining our national goals and reevaluating our national priorities.

One trend is already visible: the reduction of our forces abroad and austerity in our defense budget. Taking inflation into account, the 1968 defense budget of \$78 billion would cost approximately \$85 billion today. Our FY '71 DoD budget is down to \$71.8 billion, and this includes approximately \$4 billion for badly needed pay raises. Thus, in three years we have had a reduction of more than \$17 billion in terms of current dollars for defense programs other than personnel. Moreover, our FY '71 budget is at its lowest level since before the Korean War, both as a percentage of the GNP and as a percentage of the total federal package.

We face a number of difficult choices as we move into this era of reduced defense spending. We in the Air Force are very much aware of the vital domestic needs that place increasing demands upon the national budget, and we recognize that reducing defense expenditures frees resources to meet domestic needs and helps to curb inflation.

I might note here that defense spending alone is not responsible for the current inflation. For instance, the 1960 federal budget of \$92 billion has risen to



Secretary Seamans strongly supported the F-15 air-superiority fighter, a badly needed replacement for aging US

fighters. Its maneuverability and varied armament will give it an edge over any enemy fighter of the 1970s.

almost \$201 billion—a \$109 billion increase—yet defense spending accounted for less than \$30 billion of this increase. It follows, therefore, that there are limits to how much a reduction in the defense budget can do to correct this problem. Nevertheless, careful scrutiny of defense spending must continue, and reductions must be made whenever feasible. I am sure that you understand the compelling reasons for these past and present cutbacks, and how they, in turn, impact upon defense industry.

### Effects of Defense Cutbacks

The shift of human and materiel resources that may no longer be needed for national security presents difficult problems. For example, in the last year the Department of Defense reduced its civilian and military manpower by 471,000, and defense-related industry has reduced its employment rolls by nearly 400,000, with approximately 600,000 more expected by this time next year. Within the aerospace industry itself, employment dropped by about 200,000 from May 1969 to May 1970, and a loss of one percent per month, or 120,000, is now projected through December. While there are indications that this rate of decline may flatten out after the first of the year, the fact remains that considerable technological and scientific expertise may have been permanently lost to the aerospace community.

We are now in a transitional phase, and the reduction in certain defense outlays which we hope to achieve is dependent, in considerable degree, upon firm understanding between the United States and the

Soviet Union. We certainly want to give maximum opportunity for the on-going Strategic Arms Limitation Talks to be successful and to move nearer to the era of negotiation, which President Nixon and the American people seek, rather than confrontation. Current US peace initiatives in the Middle East support this objective. We will continue to search for a solution to this volatile situation. The President is also lessening our involvement in Vietnam. In the last twelve months, we have reduced our forces in Southeast Asia from 500,000 to under 400,000.

In connection with our efforts to achieve an honorable settlement in Vietnam, I want to mention one tragic issue that troubles all Americans. That is the refusal of North Vietnam to agree to humane treatment of prisoners of war or to provide information about men missing in action. Our present Administration policy is to foster public discussion and focus worldwide attention on the plight of our prisoners of war, in order to obtain proper treatment for them and gain their release. We in the Air Force greatly appreciate the efforts of the Air Force Association to get more Americans involved by expressing their concern over "just 1,500" of their countrymen. Your selection of the Prisoner of War issue as a symposium topic at this meeting was especially appropriate. It is an important consideration in our nation's effort to achieve peace in Vietnam.

Returning to our efforts to achieve an effective agreement in SALT, we do not intend any premature or exaggerated reduction in US military strength, which could undermine our long-term security. In the ab-

*(Continued on following page)*

sence of an arms-control agreement which would protect and enhance American security, we must take those actions which will ensure that we will still be able to deter a strategic attack during the next five to ten years.

As each of you is aware, Soviet strategic forces are growing, not diminishing, and it is the Administration's policy to provide the American public with the maximum degree of disclosure possible concerning the nature and scope of the threat.

### Must Modernize Our Forces

For the Air Force to continue to maintain a credible deterrent, we must modernize our strategic offensive and defensive forces. Two developments increase my concern in this regard: first, the increased numbers and total payload of Soviet ICBMs; and second, the Soviet deployment of an initial ABM system and continued ABM research. The combined effect could be a considerable reduction in the effectiveness of both our land- and sea-based missiles. We are deploying ABM protection for our missile fields and strengthening the penetration capability of our missiles with the deployment of MIRV. But in the future, the effectiveness of our missile forces will tend to vary, depending upon the length of time it takes us to respond to new Soviet capabilities. Thus, there would be an inherent risk if deterrence were dependent on missiles alone.

To use a very rough analogy, two legs of a three-legged stool do not give us the same stability, even

if greatly strengthened and enlarged. A dispersed manned bomber force, having quick reaction, is that third leg. It might be possible to undermine the effectiveness of either missiles or bombers alone, but to counter both at the same time would be a vastly more difficult problem. We must retain this stabilizing capability for the indefinite future. The B-1 gives us an improved system to do the job and represents the most economically feasible means to achieve this end. It is simply cheaper to replace the B-52 than to modify it and update it indefinitely. Given the decade of lead time involved, we must expedite the development of this aircraft.

### Tactical Requirements of the 1970s

In addition to our nation's strategic requirements, President Nixon has also pointed to the continuing need for US tactical forces, stipulating that our planning must take into greater consideration the manpower resources of our friends. The President has made it clear that, while we will continue to comply with our treaty obligations, the United States will not fight insurgency for other nations. But in taking this approach, the President also has stated that excessive tactical weakness on our part would be provocative since it could invite military adventurism by potential adversaries. An essential factor in our ability to meet our treaty obligations and thus deter local war is tactical airpower backed by a full complement of Reserve and Guard Forces based in the United States.



When the C-5 inventory is complete, USAF will be able to move an equipped Army division and six fighter squad-

rons with their support to Europe in less than a week. This revolution in airlift supports the Nixon Doctrine.





At the AFA Convention, Dr. Seamans inspects new equipment that will help make a highly motivated Air Force "leaner, more mobile . . . better equipped" than ever before.

As we look toward our tactical requirements for the 1970s and '80s, we see that the family of Soviet fighters is becoming superior to our own. In the area of air superiority, skill and determination can go only so far in compensating for an aging system. The air-to-air combat problem is the primary concern in our development of the F-15, which will have superior capability for close-in, highly maneuverable combat. In short, it will provide the effective weapon system necessary to defeat any enemy fighter.

In another area of tactical concern, we are convinced that effective close air support will continue to be a vital mission for the Air Force and that an aircraft specifically tailored for that role is required. As a result, we are proceeding with the development of the A-X.

To modernize our airlift capability, we are relying heavily on the C-5, which will produce a revolution in air mobility. For instance, in '73, with the C-5 in the inventory, projections indicate that we will be able to move an Army division with equipment and six fighter squadrons with support units to Europe in less than one week.

Now these key Air Force requirements, to which I have referred, are important. Nevertheless, each will be examined in light of the dollar constraints which I mentioned earlier, and will be weighed, among other considerations, against our personnel needs. These will be very difficult choices, and they will involve some tightening of our belts in both personnel and equipment areas.

What we are striving for—and I'm sure that you

and a majority of Americans support this objective—is the maintenance of defense forces that are strong enough to keep the peace, but, at the same time, do not unnecessarily absorb resources we need for progress in other areas. Although the active Air Force may be smaller in such a situation, I am convinced that our deterrent capability during the next decade will be effective. I foresee an Air Force that is leaner, more mobile, more streamlined, better equipped, trained and motivated, and more volunteer-oriented.

### Reliance on Reserve Forces

I want to emphasize that these qualifications must apply to our Guard and Reserve Forces as well. Their contribution to America's deterrent strength has always been significant; yet, with reduced active-duty strength, there will be an increased reliance on both their combat and combat-support units. One month ago Secretary Laird directed that "a total-force concept will be applied in all aspects of planning, programming, manning, equipping, and employing Guard and Reserve Forces." Further, the Secretaries of the Military Departments were asked to provide the necessary resources in FY '72 and future budgets to permit the development of the balanced forces desired. Implementation of Secretary Laird's guidance is now under way within the Department of the Air Force.

Our Air Force, employing this total-force concept, will, of course, continue to need the productive capacity of private industry, and its contribution toward advancing our technology is fundamental. In no other area of defense is this capability more vital than in the aerospace industry. Successful deterrence is fundamentally dependent upon our avoiding any significant technological gap in aerospace. This is a critical objective, and we are dependent upon all members of the R&D community to attain it.

In closing, let me say this: To meet the growing threat, the United States is reevaluating our long-range goals and attempting to bring our force structures and our short-range goals into harmony with them. This process does not involve laying down our world leadership or sacrificing the interests of our allies or friends. This process will take time, however; it involves frank public discussion, and I urge you in the Air Force Association to continue your signal efforts in stimulating public involvement in the subject of our nation's security.

I hardly need convince this audience of the necessity for America to achieve progress through peace and security. It is a task as urgent today as in the time of our Founding Fathers. We must continue to redefine that task to satisfy the needs of our own age.—END

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*Dr. Robert C. Seamans, Jr., was named Secretary of the Air Force in 1969 after prior government service as Deputy Administrator of the National Aeronautics and Space Administration. A native of Massachusetts, he has had a distinguished career in both industry and academia, working in his specialty fields of missilery and aeronautics.*

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Only by meeting the challenges we face can we ensure that aerospace continues as an expanding matrix for deterrence—rather than as a corridor of aggression against us. The job requires our highest skills and all the enthusiasm we can muster, so that we can most effectively use our resources to perform . . .

# The Key Strategic Tasks of the 1970s

By Gen. John D. Ryan, USAF

CHIEF OF STAFF, US AIR FORCE

**S**OME years ago the industrialist Edward Butler reminded us that: "Every man is enthusiastic at times. One man has enthusiasm for thirty minutes, another man has it for thirty days, but it is the man who has it for thirty years who makes a success out of life."

In the defense picture today, we need every ounce of well-directed enthusiasm and ability that we can bring to bear. And the reason for this should be apparent to anyone who has reviewed the major trends in the military budget, in the force levels of the armed services, and in the inventories of major weapon systems.

### The Effects of Budget Cuts

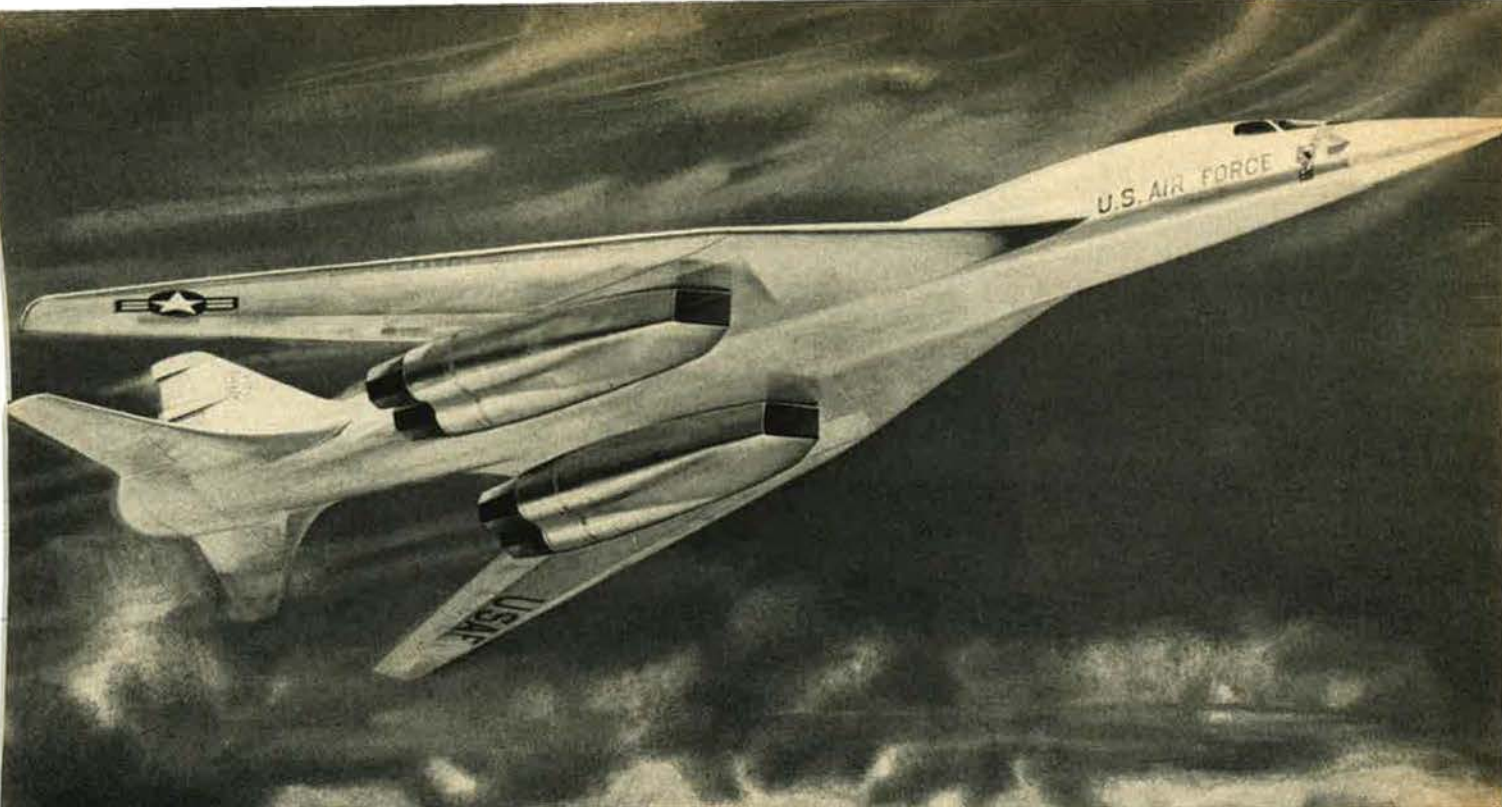
I believe the true magnitude of recent cuts in military funding was brought home with great clarity by Deputy Secretary of Defense David Packard in a recent comment on the 1971 budget compared to that for 1969. In that comparison, he pointed out that the reduction of \$6.9 billion reflected in the budget for 1971 tells only part of the story. As a result of pay increases and inflationary factors, he added that over that two-year period we are taking what amounts to an additional cut of \$5.9 billion. This comes to a total reduction of \$12.8 billion in actual purchasing power, which includes a \$4.5 billion cut for the Air Force.

Over that same period, the Air Force share of the planned DoD reduction in civilian and military personnel authorizations will be 108,715.

Meanwhile, in our inventories of major Air Force weapon systems, the missile force has remained stable. In manned aircraft, however, we've had a reduction of eighty-five strategic bombers, 133 attack fighters, sixty-six fighter-interceptors, and eighty-three transports, for a total of 367.



"The most demanding task we face now, in conjunction with science and industry, is that of translating available resources into appropriate and effective weapons."



One of the most important elements of USAF modernization is the B-1, now in engineering development. This

artist's rendering shows engine locations and the soft-ride nose vanes. The B-1 should fly by the mid-'70s.

Any one of these trends is a cause for concern. Taken together, their effect is considerably magnified. And this problem is only partially relieved by the greater unit productivity of some of the newer aircraft like the C-141 and C-5 transports, and by our prospects for like improvements with the B-1 advanced bomber and the F-15 air-superiority fighter.

What contributes most to our positive outlook in this situation is a clear understanding of two points: first, that where US military strategy is concerned, the name of the game is total deterrence; and second, that AEROSPACE IS AN EXPANDING MATRIX FOR DETERRENCE and is also the operational medium in which the Air Force is preeminent. From this it follows that the scope and value of the Air Force contribution to national security will continue to increase.

To illustrate these points, I'll use two approaches. One approach will be to examine some of the key developments in national policy over the past year. These developments have provided some excellent guidelines for the Air Force's future contribution to the overall defense effort. The other approach will be to examine some of the new and promising steps toward modernization of our force.

### The President's Policy Direction

The expressions of policy that give direction to our efforts are contained in President Nixon's February 19, 1970, Report to Congress on Foreign Relations. Most significant to the Air Force are those portions of the report dealing with the threat and with the purpose and design of this country's strategic and tactical forces.

These portions remind us first of all that "Recent Soviet programs have emphasized both quantitative and qualitative improvements in the capabilities of their forces."

President Nixon—after addressing these aspects of the threat—set forth two specific questions: First, "Should a President, in the event of a nuclear attack, be left with the single option of ordering the mass destruction of enemy civilians, in the face of the certainty that it would be followed by the mass slaughter of Americans?" And second, "Should the concept of assured destruction be narrowly defined, and should it be the only measure of our ability to deter the variety of threats we face?"

President Nixon also emphasized that the overriding purpose of our strategic posture is ". . . to deny other countries the ability to impose their will on the United States and its allies under the weight of strategic military superiority." He added that "We must ensure that all potential aggressors see unacceptable risks in contemplating a nuclear attack or nuclear blackmail. . . ."

All of our preparations for the performance of this strategic role are aimed at these necessities. And additional guidelines that recognize these necessities have reached us in elaborated form through the National Security Council and the Department of Defense.

### Key Strategic Tasks for the 1970s

In light of this guidance, there are key strategic tasks which the Air Force, as part of the defense team, must be prepared to accomplish for the remainder of this  
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General Ryan's statement that the MIRVed Minuteman III "will be our best means of destroying time-urgent targets like the long-range weapons of the enemy," gives a clue as to the accuracy expected of this addition to USAF deterrent forces.



decade. Against the most critical possibility—that of a full-scale attack on this country—we must be prepared to do two things. We must have the capability of destroying the remaining strategic weapons, which the enemy would no doubt hold in reserve. We must also have the second-strike capability of destroying a sufficiently large proportion of his industry and population so that he would have no incentive for a full-scale attack in the first place.

We're convinced that this dual capability will provide our best means of deterring or denying success to an attempted disarming first strike.

We're also convinced that the strategic force should continue to include what we call the TRIAD, consisting of manned bombers and land-based and sea-based missiles. This combination of retaliatory weapons complicates the enemy's problem of targeting and of timing his attacks. To a like degree, the TRIAD also complicates his problem of defense against a coordinated counterattack.

### USAF in Tactical Operations

Now let's see how some of the new developments in national policy have affected the role of the Air Force at the tactical level of military operations. Again, the best indicators available on this subject are contained in the President's Report on Foreign Relations. This document tells us first of all that, "while strategic forces must deter all threats of general war, no matter what the cost, our general purpose forces must be more sensitively related to local situations. . . ." And it also tells us that, while our country has ninety-five percent of the nuclear power of the non-Communist world, the planning for general-purpose, or tactical, forces "must take into account the fact that the manpower of our friends greatly exceeds our own. . . ."

Combined with other statements on the Nixon Doctrine and the Asian policy, this guidance calls for a reduction of our military presence in overseas areas and for our allies to assume the primary responsibility for providing the manpower for their own defense. It further indicates, in my judgment, a corresponding need

for greater reliance on US airpower as a means of using our superior technology to full advantage.

In line with this guidance, we are placing greater emphasis on training and equipping the Air Forces of our allies. By far the most impressive example of returns on that effort is now offered by our part of the Vietnamization program in Southeast Asia. As a result of our advice and assistance, the fighter squadrons of the Vietnamese Air Force have consistently achieved bombing accuracies comparable to our own.

### Making the Most of USAF's Assets

Where the direct use of US military forces is essential in protecting our interests, the Air Force is being called upon for more and better support in the fields of attack fighter operations and airlift.

In the tactical missions of interdiction and close air support, we've been able to capitalize on two advantages. One is the improved performance and mobility of our fighters. And the other is the greater effectiveness of our conventional ordnance against a variety of military targets. In our tactical operations, we've also devised much better equipment and techniques for accurate weapon delivery at night and in all types of weather.

Airlift in recent months has become a factor of growing importance. One reason for this is that we are facing sizable reductions in our forces that are permanently deployed in certain overseas areas. Therefore, we must depend more and more on airlift—both strategic and tactical—as a means of rapid deployment and resupply of those forces.

In the process of using aerospace as a major arena for deterrent operations, we draw heavily on several assets. The most important asset is the superior skill and dedication of our people. Another asset is the basic validity of our operating concepts. And still another is the ability of our aerospace industry and technology to give us a qualitative edge in our weapons.

Measuring these assets against future demands, I can assure you that our people—the pilots, aircrew members, and technicians—are getting better all the

time. At every stage of experience, they know more, they attempt more, and they accomplish more than any generation I have seen.

### **Deterrence—A Dynamic Process**

As to concepts, I'll mention just one view of deterrence that runs through our thinking in the Air Force. Although many people see the effort to deter as an "either/or" proposition, we believe it's a dynamic process. Moreover, it's a process that remains both operative and effective at least in some degree at all levels of conflict below that of full-scale war.

In a conflict that is under way, for example, the enemy who foregoes escalation by reason of the greater risk involved has actually been deterred in a practical and important sense of the term. And that holds true even if he continues to fight on a reduced scale. We, therefore, want to confront him at all levels with a risk in relation to gain that is clearly prohibitive.

At the strategic level, we have done that by combining a credible posture with a show of force when required. At the tactical level, these two measures have not in all cases been adequate to convey the message of unacceptable risk. So, the ability to use force on occasion as an instrument of operative deterrence remains essential to the protection of our national interests.

### **Translating Resources into Weapons**

So much for concepts. The most demanding task we face now, in conjunction with science and industry, is that of translating available resources into appropriate and effective weapons. One difficulty here is that maintaining an operational force is demanding a significant portion of the resources that could otherwise be applied against our future requirements. Thus, trade-offs, by necessity, are being made between the hardware needed for today and the more advanced development leading to such items as vertical-takeoff aircraft and additional space systems.

I'm glad to report, however, that some of the systems we are trying to bring into the force over the next five years will incorporate important advances in technology. As one example, the use of weight-saving composite materials made from boron and graphite could open the door to major gains in aircraft performance. Depending on our needs, we might concentrate on the resultant opportunities for improvement in maneuverability and range. On the other hand, we might take our gains in terms of a greater volume and variety of conventional ordnance or the improved effectiveness of fire control and countermeasures equipment. In another development program, we are making progress toward guided weapons that can destroy targets under almost any condition of darkness or weather.

These are some of the ways in which we can achieve the modernization required to meet the threat. The funding for these and many other approved steps toward modernization is by no means assured. But their urgency is underscored by the fact that more than half of our aircraft inventory is more than nine years old.

Therefore, I'm going to discuss some of the more important new systems we expect for the future.

### **The Introduction of Minuteman III**

In the most critical area of strategic offense, we are scoring a measure of qualitative improvement in the ICBM force through the introduction of the Minuteman III. This missile, with a multiple, independently targetable reentry vehicle, will be our best means of destroying time-urgent targets like the long-range weapons of the enemy.

To help modernize our strategic bomber force, it now appears that we will also get four squadrons of FB-111s. Equally important for this purpose, we have the B-1 advanced bomber approved for engineering development toward a first flight by the mid-1970s. We hope to have the B-1 operational by the end of this decade. This aircraft will provide our national leadership with many additional choices at all levels of conflict.

We must also combine these new strategic weapons with the more advanced communications, warning, and reconnaissance systems that are needed for the effective management of our forces. One important step in that direction will be to obtain an Advanced Airborne Command Post as a replacement for the KC-135 that has been adapted for that purpose.

Satellite surveillance is another key element of our total arrangement for the command and control of forces. From the standpoint of aerospace operations, one of our primary interests in this type of surveillance will be to obtain early warning of ballistic missile attack.

To achieve some degree of modernization in our air defense system, we are planning an Airborne Warning and Control System and over-the-horizon radars. We have an urgent need for the AWACS to replace the elements of the ground-based radar and control system that are now being phased down. This system could also be used to advantage for the command and control of our deployed forces.

### **Modernization of Tactical Forces**

In our tactical forces, we are making some progress toward modernization with the F-111 and A-7 attack fighters that are now in production. Both of these aircraft will have a close air support and interdiction role. We have high confidence that, when we have completed the structural test program for the F-111, it should be the best all-weather attack aircraft in the world.

The A-X, as our primary close air support system, will be the first plane that we have produced specifically for that role. Backed up by the A-7 and the F-4, it will be able to fly lower and slower attack patterns and deliver heavy and varied payloads with greater accuracy.

To ensure control of the air against the tougher competition that we see ahead of us in the 1970s, we are developing the F-15 air-superiority fighter. This fighter promises to exceed the performance of any competitive design we can foresee in the next ten years. It should be operational by the mid-1970s.

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The tactical airlift force badly needs modernization, but for the next two years R&D funds will not be available for work on an advanced, light intratheater transport, one concept of which is shown here. USAF plans to select an interim STOL transport that will be available for early procurement.

In the airlift picture, the C-5—even at a reduced buy—will help give us a better than threefold increase over the capability we had in this field just five years ago. To modernize our tactical airlift force, we are evaluating two systems. One is a vertical/short take-off and landing, light intratheater transport called the V/STOL LIT. And the other is a high-speed, long-range, medium STOL transport known as the MST. Each of these approaches, however, calls for a larger development effort than we can support within our budget for the next two years. So we are now in the process of selecting a transport that is available for early procurement, to provide an interim STOL capability.

With adequate funding support, these systems undoubtedly will bring us to much higher levels of effectiveness. In the strategic area, I believe our improvement will be measured chiefly in qualitative terms—greater selectivity of response, greater accuracy, and faster reaction. In tactical operations, our most important gains should be in close air support and all-weather interdiction. In airlift, the greater capacity and

efficiency of our large transports should continue to make these systems more competitive for all types of passenger and cargo movement.

Finally, we have to consider all of these gains in relation to a growing challenge presented by the thrust of Soviet technology. Only by meeting that challenge effectively can we ensure that aerospace continues to be an expanding matrix for deterrence—not a corridor of hostile aggression. That is a mission of hope and high purpose. It demands all of the ability and enthusiasm we can muster.—END

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*A native of Iowa and a 1938 graduate of West Point, Gen. John D. Ryan won his Air Force wings in 1939. He served in Europe during World War II and later in a series of important SAC assignments, rising to the post of SAC Commander in Chief in 1964. After a tour heading PACAF, he was named USAF Vice Chief of Staff in 1968. He became Chief of Staff in 1969.*

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"The greater the disparity in quality and quantity of arms between the United States and the Soviet Union, the greater that risk will be—since all the foreseeable disparities will not be in our favor."

# The Growing Soviet Threat: A Sobering Picture

By Dr. John Foster

DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING, DEPARTMENT OF DEFENSE

I WANT to define the term "The Threat" to include all of the weapons of a potential adversary and his capability to use them against us—that is, a comparison of forces on both sides—and the trends that show what we can expect his capabilities to be in the future.

There are, of course, "threats" from many countries. But the Soviet forces so overshadow those of all other potentially hostile nations that we can logically use the Soviet Union as the one nation against which we must measure our capabilities.

If you make all of these assessments as of today, without any wishful thinking, I am convinced that one comes to two conclusions:

- In the kinds of weapons that count most, both nuclear and nonnuclear, the Soviets are going ahead on quantity.

- On quality, it's a horse race, with the US now ahead by a neck, but falling back.

Having made these sweeping conclusions, let's go back now and examine some of the details. I'll start with present strategic capabilities.

In a broad sense, there is still rough strategic parity between ourselves and the Soviets in numbers of offensive weapons. They have more land-based missiles than we—more than 1,300 launchers operational, compared with our 1,054—while we have more submarine-based

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"... we cannot afford to be a poor second in strategic nuclear weapons, as was the Soviet Union during the Cuban missile crisis. . . .

We have fought against Soviet nonnuclear weapons in third countries, and must be prepared to face them again if American interests are threatened."





—Wide World Photos

Dr. Foster verified reports that the Soviets now have more than 300 of the large SS-9 missiles either opera-

tional or under construction. Improvements in the SS-9 include "large multiple warheads and . . . good accuracy."

missiles than they—forty-one US Fleet Ballistic Missile submarines operational compared with approximately thirteen operational Soviet subs of the Polaris type and at least another fifteen under construction or outfitting. We don't know, of course, when they will stop building those subs or the ICBMs. We, however, stopped adding to both our land-based and submarine strategic missile forces several years ago.

The Soviets are still constructing new land-based missiles. There are now more than 300 of the large SS-9s operational or under construction, and their Minuteman-size SS-11s and SS-13s number more than 800.

They are building new missile-carrying submarines at a rate of about eight a year.

In long-range bombers, we continue to lead in numbers—unless you assume that the 700 Soviet medium bombers and tankers would be used on one-way missions.

In strategic defense, there is no parity. The Soviets have long been defense-minded and have today an ABM complex operational around Moscow, as well as many thousands—on the order of 10,000—surface-

to-air missiles already deployed. Although we credit this force with being largely for defense against aircraft, we cannot rule out the possibility that a significant portion could be upgraded to have some ABM potential. We, of course, have no ABM in being.

In nonstrategic areas, they are impressively active in the tactical aircraft field. Naval tactical forces are also on the increase, as any recent reading of the papers will reveal. They are operating in the Mediterranean, the Caribbean, and briefly in the Gulf of Mexico.

### What We Will Face by 1975

But now, let's look beyond the present and near-term future and attempt to describe the kind of situation we will have in 1975 if present US and Soviet trends continue.

To place the US trends in perspective, I would like to remind you that we now are in the process of re-allocating the total resources of government—local, state, and federal—to place greater emphasis on areas that heretofore have been too much neglected. The



effort to reverse the trend toward environmental pollution is but a single example. It may be interesting and surprising to note that national public spending—federal, state, and local—is far greater on our nondefense needs—on the “quality of life” as it is often put—than it is on defense. Since 1964, in fact, total public spending on civil programs has increased by the equivalent of two Defense Department budgets.

The growing Gross National Product provides most of the extra money for civil needs, but it has been necessary to provide some of the funds from defense spending. Defense budgets have been declining since 1968, and the FY '71 budget presently before the Congress is, in the words of Secretary of Defense Melvin Laird, “rock bottom and bare bones.” Yet pressures persist in numerous quarters to shrink the defense budget still further—to direct an even greater share of defense dollars into other channels.

The President's request to Congress this year is about \$72 billion. Although it is hard to determine what a ruble is worth, and parts of the Soviet defense budget are hidden, for equivalent defense activities, the Soviets have increased their spending to the present US ballpark and show no signs of leveling off.

A leveling off for us in the low seventy billions of dollars would result in a gradual decline in our buying power. Inflation and higher military pay eat into the value of each defense dollar.

We are introducing new efficiencies, but they cannot compensate fully for the money reductions we have seen. Our available money is going down; the Soviet Union's is going up. This means that we will be buying fewer new weapons, the Soviets will be buying more.

The budget squeeze affects all of our defense efforts, but in our examination today of the long-range threat, it is illuminating to look particularly at one kind of spending—research and development. It is today's research and development that provides tomorrow's

weapons—for 1975 and beyond—and provides also a capability to understand early and counter quickly the qualitative weapons improvements on the other side.

The picture here is a sobering one.

The Soviet military research and development effort is presently estimated to be twenty percent greater than ours and is growing at an annual rate of ten to thirteen percent. In contrast, in compliance with our overall budget restrictions, US research and development efforts have leveled off and are now declining.

On the assumption that present trends continue, we can visualize the Soviet threat that we could be facing beyond 1975.

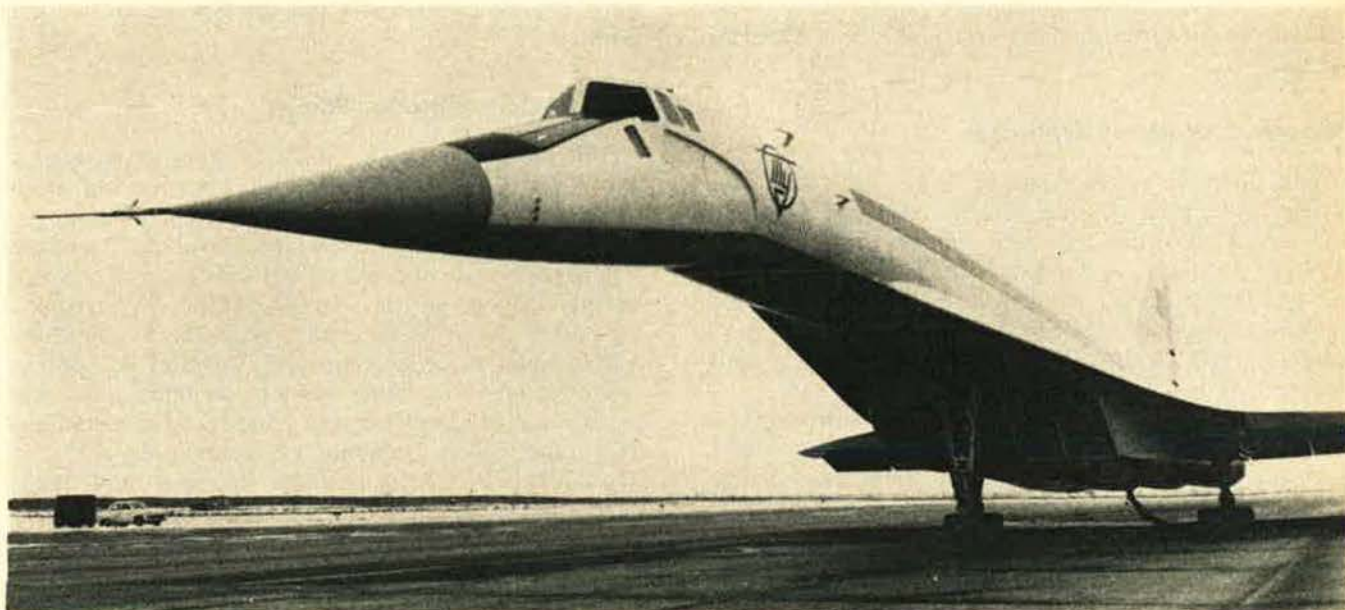
First, strategic offensive weapons.

### Soviet Strategic Weapons

As I have indicated, they can have a greatly increased number of strategic missiles—both land- and sea-based. If present trends continue, we should expect the ICBMs that they deploy in 1975 to be about the technological equal of our own. SALT can influence numbers of missiles, but without a SALT agreement, we could trail in numbers.

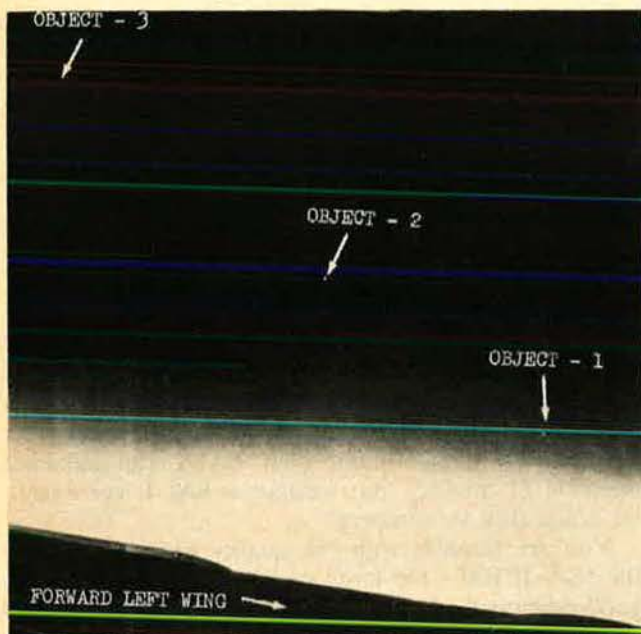
You are familiar with the quality improvements in the SS-9 ICBM—the large multiple warheads and the good accuracy which the weapon achieves. You may not be familiar, however, with tests on their SS-11 missile, which indicate that it, too, is being improved. From what we know now about tests of new configurations, we conclude that there are three versions of the SS-11:

- The original one, with a single reentry vehicle, and now deployed.
  - One with a single reentry vehicle plus penetration aids.
  - One that has three separate reentry vehicles. In other words, the SS-11, which has been long on num-
- (Continued on following page)*



The USSR's supersonic transport, the TU-144, is but one example of the dynamism of Russia's research and devel-

opment base, now “larger than ours in manpower and spending and apparently almost equal . . . in quality.”



The Soviets have three versions of the numerous SS-11, a Minuteman-type, liquid-fueled missile. The advanced version has three reentry vehicles, shown in this picture of a recent SS-11 test. Long on quantity, the missile is now "achieving significant improvements in quality."

bers but relatively short on quality, now is continuing to grow in numbers and achieving significant improvements in quality.

The accompanying picture is of one recent Soviet test of three reentry objects from one of the new kinds of SS-11s. We are watching such tests closely.

The submarine-based missile force is also of concern. By 1975, or perhaps even earlier, we should expect to see a Soviet submarine missile force comparable to or surpassing our own. This is a sobering thought.

### Vigorous Work on Defenses

But offensive missile activity is not the only area where an increased threat will lie. As I noted earlier, the Soviets have always been defense conscious. By 1975, we should see an extension and modernization of the Soviet early warning aircraft force deployed beyond the perimeter of the Soviet Union—with interceptors ready to attack our retaliatory bombers long before they reach the Soviet border.

Also, we expect the large numbers of surface-to-air missiles already deployed to be modernized. If a SALT agreement has not stopped further ABM deployment, we should expect a new generation of Soviet ABM interceptors and sensors. They are now being tested. Further, improvements in automation and other feasible changes may make the SAMs, or a portion thereof, a threat to our missiles as well as to our long-range aircraft.

In summary, in the strategic area, we will face a greater threat in numbers of improved strategic offensive missiles—including missile submarines operating off our shores—and also an improved Soviet defensive network, intended to intercept our retaliating missiles and bombers.

Soviet defenses against our Polaris submarines may also improve, judging from vigorous current Soviet work in antisubmarine warfare techniques and technology. They are conducting extensive antisubmarine exercises in open ocean areas throughout the world. You are probably aware that the Soviet Union has the largest submarine force in the world today. In addition to sheer quantity of submarines, they are also increasing substantially the antisubmarine quality of this force—for instance, through recent additions of several new classes of submarines, including several new, modern, high-speed attack submarines.

A large submarine-construction program continues in the Soviet Union, and one can anticipate the appearance of additional new classes of submarines with enhanced antisubmarine and antiship capabilities by 1975.

The Soviets have complemented their submarines with an extensive surface-ship construction program that has produced several new classes of antisubmarine ships, including an innovative helicopter cruiser and several classes of heavily armed escorts. They also have acquired an airborne antisubmarine capability through the development of a new helicopter for surface-ship escorts and the introduction of a land-based, antisubmarine airplane with excellent range and payload capabilities. The Soviets have begun to combine these individual forces into an open-ocean capability, which they exercised recently in a coordinated worldwide exercise.

Although I can foresee no specific breakthrough that will pose a serious problem to our own submarine missile force, the possibility is always present. You can imagine our difficulties if something of this sort emerged. And bear in mind—the harder one works on antisubmarine research and development, the greater one's chance of success—and the Soviets are working hard!

### Strong Conventional Forces

But the Soviet Union, while bending its energies to the rapid buildup of its strategic systems, has at the same time not neglected its conventional forces.

The Soviet navy has expanded from largely a coastal defense force to one extending Soviet naval power to oceans throughout the world. In the Mediterranean and other ocean areas readily accessible to the Soviet Union, their navy is active and growing. By contrast, our own, presently larger Navy is shrinking and, except in the case of aircraft carriers and nuclear submarines, is a force rapidly becoming obsolescent. By 1975, we should expect to face a large, modern, and mature Soviet navy.

There have also been marked efforts to upgrade Soviet tactical air and armored forces. For example, although present NATO and Warsaw Pact manpower and aircraft are about equal in number, the Pact has twice as many tanks and more than twice as many

artillery and rocket-launcher pieces and is rapidly improving its tactical aircraft strength.

### Soviet Fighter Aircraft

The Soviet fighter aircraft are increasing in quality while retaining overall numerical superiority. The Soviet approach to research and development for fighter aircraft provides for a steady pace in applying technology to design. Prototypes are produced from competing design bureaus on a regular basis. As a result, the Soviets have flown a new fighter about every eighteen months.

In the past we have met and defeated the Soviets' best fighter aircraft. But there is conclusive evidence that the Soviets have corrected those major deficiencies in their fighters which were revealed in past engagements with our present aircraft. A new model of the MIG-21 incorporates improved maneuverability, more staying power in the combat area, higher speed at low altitudes, and improved armament.

The Soviet Foxbat is currently in production and is based on a level of technology that is in many respects equal to the best in the US.

By 1975 we expect to operate new fighter aircraft systems that will provide to us a margin of superiority over the threat. However, current Soviet developments indicate their intent to continue their steady pace of technological progress.

As our experiences in the Middle East and the Far East show, the lesson is clear. The vast nuclear arsenal of the US will not deter nonnuclear limited wars. Hence, we and our allies must not lag in our efforts to be equipped with effective "conventional" weapons as well.

### Outstripping Us in R&D

I would like now to come back to the issue of research and development. As you know, one must invest heavily in R&D in order to have weapons to match the enemy's. In the past, the United States has had a comfortable edge in the level of defense R&D effort and in the quality of weapons resulting from that R&D process. Our comparative effort has made us confident that we could meet any Soviet challenge in defense, atomic energy, or space.



Soviet strategic forces include more than 800 SS-11s and SS-13s. Shown here is the solid-fueled SS-13 missile.

But the scientific and technological leadership upon which that confidence has been based is fading. The Soviet Union has now created a national research and development base larger than ours—in manpower and spending—and apparently almost equal to ours in quality.

The nature of R&D is such that the problems of falling behind can be multiplied far beyond the simple difference in levels of effort. That is, R&D not only results in new weapons but it also enables us to understand the shadowy evidence of what the Soviets—and others—are doing. Our advanced work in the past has given us a store of knowledge with which we could understand the significance of new Soviet technical advances and be ready with an appropriate counter when the advance was translated into a new weapon. But should the Soviets become more advanced than we in some area of technology, they could then jump forward while we wondered what the change was all about.

We used to be the ones who made the jumps. In the future, a dangerously large proportion of the surprises could come from the other side, while we scramble to catch up.

Now, I have not covered the entire gamut of the threat, but I have mentioned enough so that you have the message. This message is that the path ahead is not easy and not without risk. The best sober judgment of our nation today is that the risk for the present is an acceptable balance against our many nondefense needs.

We must, however, be ever more vigilant to ensure that the money we do spend is spent in a manner to give us the greatest overall gain. We must likewise be vigilant so that we can recognize when the risk becomes too great to be acceptable.

There are those, of course, who say that the Soviets will not attack, that we need not respond to the "threat" I have outlined here, and that we can further reduce our defense spending. Direct attacks on the United States certainly are unlikely if we maintain our retaliatory capability; but, as incidents in the past decade have shown, nuclear weapons can play an important role in crises and confrontations—without a shot being fired.

In another crisis, we cannot afford to be a poor second in strategic nuclear weapons, as was the Soviet Union during the Cuban missile crisis. And we have fought against Soviet nonnuclear weapons in third countries, and must be prepared to face them again if American interests are threatened.

I cannot predict the future. I can only say that we arm in order to diminish the risk of war and the risk of losses in crises and wars. The greater the disparity in quality and quantity of arms between the United States and the Soviet Union, the greater that risk will be—since all the foreseeable disparities will not be in our favor.—END

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*A distinguished physicist and defense scientist, Dr. John Foster was Director of the University of California's Livermore Lawrence Radiation Laboratory before being named Director of Defense Research and Engineering, Department of Defense, in 1965.*

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At the Threat Symposium, a panel of authorities in weapons development, defense planning, Soviet affairs, and Middle East relationships analyzed the military, political, and economic facets of Soviet power. From their expert judgments there emerged a realistic view of . . .

# The Soviet Threat to US Security: Serious, But Not Irredeemable

By John L. Frisbee

SENIOR EDITOR/PLANS AND POLICY

**I**F YOU listened to much of the opinion afoot in America today, you would rapidly get the impression that there is no Soviet threat, that they are all a bunch of purely altruistic, nice guys, scared to death of our saber-rattling habits.

"Twenty years of nuclear standoff by the United States and Russia have produced a curious credibility gap. . . . Many can't believe that Foxbat and SS-9 are not just defensive weapons. The Soviet threat, if you will, seems to have been lost somewhere between Vietnam and the Middle East, and submerged to our people.

"But a report just this past Friday to the Senate Subcommittee on National Security and International Operations seems to put it in perspective. No one, it declared, should be misled by the waves of superficial conciliation released on occasion by Moscow, because Soviet military power continues to grow rapidly and the basic philosophical, political, and economic conflicts remain."

With that introduction to the Soviet threat, Jules Bergman, ABC-TV's Science Editor, opened the Threat Symposium at AFA's 1970 Convention. His remarks were amplified by the panelists who had been assembled; as Mr. Bergman said, ". . . to analyze the true nature, scope, and depth of the Soviet threat . . . which is camouflaged in its own cloud of words and false statements . . . and to predict its future impact on our society."

On the platform with Moderator Bergman were: Dr. John S. Foster, Jr., Director of Defense Research and

Engineering; Dr. Andrew Gyorgy of the Institute for Sino-Soviet Studies, George Washington University; Dr. John S. Badeau, Director of Columbia University's Middle East Institute and a former US Ambassador to Egypt; and Helmut Sonnenfeldt, senior staff member of the National Security Council.

### Surging Soviet Military Capabilities

There is an understandable tendency to think of the Soviet threat solely in terms of military hardware, or military capability. That, of course, is central to the whole issue and can be determined with a higher degree of confidence than can the policy decisions that will

**Jules Bergman, ABC-TV  
Science Editor and  
Moderator of the Threat  
Symposium: "The errors  
of the past are dwarfed  
only by the hysteria of  
the present and the  
uncertainty of the  
future."**



Discussion of the Soviet threat was opened by Dr. John S. Foster, Jr., Director of Defense Research and Engineering. His conclusion: "... the fact of the matter is that the real situation, which we see and which can be described by known facts, is serious."



technology, then they could jump forward while we were still wondering what the change was all about.

This becomes a particularly worrisome problem since "... the Soviet military research and development effort is presently estimated to be approximately twenty percent larger than ours ... and is growing at an annual rate of ten to thirteen percent ... while US research and development efforts have leveled off and are now declining."

### The Question of Intent

A comprehensive assessment of the threat must take into account not only what military hardware an adversary has—and may have in the future—but also how and for what purposes he might use it, now or in the future. Trying to divine the strategic and tactical intentions of any country—even one like the USSR, which has openly and consistently declared its long-term objective to be world domination—is a very tricky business, considerably less exact than assessing existing or even future military capabilities.

Nevertheless, it is important, in considering the threat, that we try to arrive at the best possible understanding of what the USSR considers its vital interests and how it may attempt to reach its ultimate goals. Broadly, these were the questions examined by the symposium's Soviet and Middle East experts.

Dr. Andrew Gyorgy—a Hungarian by birth, a humorist by temperament, and by training a student of Russian affairs—painted a long-term picture of the Soviet threat that might be summed up by the overworked phrase "cautiously optimistic." While admitting that Soviet foreign policy has been "doing very well, indeed," he believes there will not be a serious confrontation between the US and the USSR in the immediate future.

Dr. Gyorgy concluded that "... if, with wisdom and patience and without further budget cuts, we can weather the next five to seven years, then I see maybe one or two brief critical crisis situations or conflict situations ... but some kind of minimal level of accommodation can be reached over a longer period of time."

There is, Dr. Gyorgy believes, no possibility of an anti-Communist revolution within the USSR. A high degree of social stability has been achieved as the

*(Continued on following page)*

determine how the USSR intends or hopes to use its military power.

The discussion was opened by Dr. Foster, who pointed out that an opponent's military capability has to be measured by balancing all of his weapons—both strategic and general purpose—against all of our own. Existing Soviet military capabilities can be assessed quite accurately with today's intelligence-gathering systems.

"If you make all of the assessments as of today, without any wishful thinking," Dr. Foster said, "I am convinced that one comes to two conclusions: One, in the kinds of weapons that count most, both nuclear and nonnuclear, the Soviets are going ahead on quantity; second, on quality, it is a horse race, with the United States now ahead by a neck, but falling back."

These conclusions are based on facts and, as Dr. Foster observed, "... unless we are armed with these facts, it seems to me that we ... express opinions and are not taken seriously, because they are thought of as just opinions, whereas the fact of the matter is that the real situation, which we see and which can be described by known facts, is serious."

The full text of the facts that Dr. Foster presented starts on page 77. One of his most important judgments related to a function of research and development that often is overlooked.

Obviously, preparing against a future threat depends on an active research and development program. It is less obvious, but just as true, that forecasting what the future threat may look like also is dependent on vigorous R&D programs. As Dr. Foster put it:

The nature of research and development is such that the problem of falling behind can be multiplied far beyond the simple difference in the level of effort. That is, research and development not only results in new weapons, but it also enables us to understand the shadowy evidence of what the Soviets and others are doing.

Our advanced work in the past has given us a store of knowledge. With that store of knowledge, we could understand the significance of new Soviet technological advancement, and we could be ready with an appropriate counter when the advance was translated into a weapon. But should the Soviets become more advanced than we in some area of



Former Director of Communist Studies at the National War College, Dr. Andrew Gyorgy: "Whenever [the Soviets] talk mildly and leniently and in a friendly manner about us, I think we should watch out."



**Middle East expert Dr. John S. Badeau, former US Ambassador to Egypt:** "I do not believe that the present situation in the Middle East need . . . precipitate confrontation if we clearly realize where Soviet interests and our interests lie."

position of specialists needed to run the country in every field—political, economic, management—has become more secure. The selective use of terror contributes to the regime's security, but Dr. Gyorgy does not believe there will be a return to the widespread terror tactics of the Stalin era. Nor does he believe that younger men who will succeed the present aging leadership will abandon the Soviet objective of world domination, though they may be more constrained by the fear of nuclear war than their predecessors have been.

One of the most significant developments noted by Dr. Gyorgy is what he believes to be an increasingly influential military voice in Soviet decision-making. This probably will be counterbalanced to some degree by "the revolution of rising [consumer] expectations on the home front," he said.

Dr. John S. Badeau turned from long-term Soviet intentions to the more immediate issue of the Middle East. In his brief, incisive statement, Dr. Badeau examined the question of whether the Middle East will provide the spark that sets off a serious confrontation between the US and the Soviet Union. His answer was a clear and unhedged, "No . . . unless we choose to make it so," by misjudging issues and interests. This opinion was supported by four judgments:

- The Middle East no longer has so high a strategic and economic value that either we or the Russians are prepared to risk a world confrontation over the area.
- We tend to overestimate the capacity of the USSR to control the Middle East countries. The US, with significantly larger resources and aid programs than the USSR, was not able to dominate the area. "To assume that the presence of the Soviets in the Middle East means inevitable creation of a new Soviet empire to replace the British Empire . . . is false. The nature of the threat is not primarily a Middle East which has become puppetized under the Soviets."
- Events in the Nile Valley—specifically the movement of Soviet missiles into the Suez Canal zone—do not directly threaten the security of the United States.
- The USSR does not intend to destroy Israel, but rather to use the Arab-Israeli conflict to enhance its own position in the Arab world. If the Soviets did attempt to do away with Israel, it would mean direct US/USSR confrontation. They do not intend to do so, and for our part, we would not let it happen.

"If you really want to look at the question of security in the Middle East, look back at the old Northern Tier. Look at Iran and Turkey . . . look at the Sixth Fleet,

rather than the presence of missiles in the Nile Valley. It is in that context and in that area, rather than in the area of the Nile Valley, that our interests and Russian interests may clash most significantly for our own security relationship," Dr. Badeau concluded.

### A Silver Lining?

It is doubtful that any of the standing-room-only audience left the Threat Symposium sharing the frequently stated opinion alluded to by Jules Bergman in his opening remarks—"that there is no Soviet threat." Clearly, as Dr. Foster showed, Soviet military power continues to grow while US defense budgets decline, perhaps most ominously in the research and development area. None of the other panel members offered much comfort to those who believe there no longer are basic philosophical, political, or economic conflicts between the Communist and non-Communist worlds, or that the Soviet's long-term objective of world domination will soon fade away.

One could only conclude that the threat to US security and national interests is serious, perhaps grave, but certainly not irredeemable. It is apparent that our highest elected officials hold a realistic view of the situation and of what, at the very minimum, must be done to meet it. It also is apparent that their assessment has not been communicated adequately to the public.

Dr. Foster was asked to comment on whether "parity or worse [is] a matter of deliberate US policy choice."

"This is an assertion that has to do . . . with present forces," he replied. "Secretary Laird has made it crystal clear to the Congress—and I think to the American people—that this is a year of transition, this is a year when the President and the Secretary of Defense are going to have to make some very tough decisions. And those decisions hinge in part on their assessment of progress in the SALT talks, the continued Soviet deployment of weapon systems, the nature of those weapon systems, and so on.

"I don't want to indicate in any way that the threat I described for 1975 will be, of necessity, balanced or met by existing US capabilities."

Dr. Foster also stated his firm belief that "we must and can maintain a bomber capability that is effective through the 1975 period and beyond. I believe," he added, "they [bombers] will be a key ingredient in our strategic force in the 1980s."

These are good omens for the future.—END



**Mr. Helmut Sonnenfeldt, senior staff member of the National Security Council, discussed the machinery and procedures used by the Administration in analyzing the threat and arriving at decisions in the area of national defense.**

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Deputy Assistant Secretary of Defense for Public Affairs.

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What is it really like to be shot down in Southeast Asia and fall into enemy hands, to suffer the brutal and degrading treatment meted out in North Vietnam's notorious prisons? Here's a first-hand account by a veteran pilot who has experienced the agony of being held by a cruel and heartless enemy but had the good fortune to come back. Colonel Overly's narrative was a moving part of the MIA/POW Seminar at the AFA Convention . . .

# Held Captive in Hanoi— An Ex-POW Tells How It Was

By Lt. Col. Norris M. Overly, USAF

**A**PPROXIMATELY three years ago, I was shot down over North Vietnam, captured, transported to Hanoi, detained in the "Hanoi Hilton," transferred to several other camps in the Hanoi area, and subsequently released.

All of this happened within the span of five months.

There ends the similarity between myself and those unfortunate individuals who are still imprisoned in Hanoi, and I would like to call attention to the fact that some of these are men now going into their sixth year in what were once French prisons in the city of Hanoi.

I was shot down on September 11, 1967, while attempting to bomb a convoy of trucks on a road near Dong Hoi, in North Vietnam. As I pulled out of my dive, I felt my B-57 lurch and realized the controls had been shot away. I had been hit by four 57-mm gun positions. I couldn't pull out of the dive, so I ejected. My parachute opened and I hit the ground almost simultaneously.



*Now a student at the National War College in Washington, D.C., Lt. Col. Norris M. Overly, Jr., who flew B-57s in combat in Southeast Asia, was shot down over North Vietnam in September 1967. A native of West Virginia, he's served most of his Air Force time in SAC. The accompanying article is adapted from his September 23, 1970, address to the AFA Convention.*

To this day I have no idea what happened to the guy in the back seat of my aircraft.

Two hours of rescue attempts were unsuccessful, and I was captured by North Vietnamese civilians. I tried to hide in a rice paddy, but immediately after landing I heard many voices and realized I was in a populated area.

The helicopters tried repeatedly to get over the area, but were unable to do so because of the intensity of the ground fire. Then I was captured by these civilians and taken to a line of trees and put into an underground bunker. The rest of the night was spent with some Vietnamese picking the leeches off of my body.

When daybreak came, I was double-timed to the next village. They gave me back my flight suit and proceeded to take pictures of me being escorted in and out of the village under heavy guard. My guards were young, heavily bandoliered girls with rifles.

I found out later that a favorite North Vietnamese trick is to portray the aviator in as humiliating a position as possible.

I was then double-timed from village to village the rest of the day. In each village, the person who had captured me would make a brief speech about me and either leave me tethered in the center of the village or tied up in a hut. Then the villagers were free to do whatever they wanted to me.

You have to realize that this was during the height of the bombing of North Vietnam. People hit me; they kicked me; they urinated on me; they spit at me as they filed by me tied up in this hut.

The people I feared most were the women, the children, and the old people—little children in particular. They would pick up rocks and come right up to you and bash you in the face.





This is the type of treatment I had for the next three and a half days as my captors marched me from village to village.

I was finally turned over to the military. They pointed to a paragraph that said, "You are now in the hands of the North Vietnam Army. Any attempt to escape would be injurious on your life."

By now I didn't have to be convinced of that!

The evening of the fourth day, they double-timed me further inland until we came to a road. We waited by the road, where we could see the southbound convoys of ammunition and guns going down toward the DMZ. At first they didn't want me to see this, but they had a little parley and finally decided to let me watch.

As the trucks went south, the soldiers pointed at me and laughed. Finally a northbound convoy came along, and they stopped the first truck and put me in the back.

Each of these trucks was manned by civilians who

had been conscripted to drive them, and each truck had a military guard. In the back of each truck was a fifty-gallon drum of fuel. They would strap me to the fifty-gallon drum with my arms around it and wire me to it. We traveled only at night. Whenever we had an air raid, and these were frequent, they would pull the truck over to the side of the road and jump out, leaving me tied to the fifty-gallon drum.

This was the sort of thing that happened in the first week, until the roads became impassable due to the oncoming monsoons.

During this week, the villagers would file in and sit and observe me as I sat, tied over a board at one end of a hut. Some of them would come up and feel my hair or my arm and then jump back. Some of them would come up to me and make menacing gestures. It was the guard's duty to keep these people from me, and in some cases this took some doing.

After a week in this area, we proceeded on north.  
*(Continued on following page)*

As we came into Vinh in the daylight hours, we searched for a hut in which to stay for the day. No sooner did we get in the hut than 400 or 500 people gathered around, trying to tear the hut down to get at me.

To save my life, as well as his own, the guard had to go out and get some of the local militia to keep the civilian populace away. The militia backed a truck up to within 100 feet of the front door of the hut and, on a signal, the guard and I ran and dove into the back of the truck with the engine running, and the truck went off in the daylight. We circled around trying to keep concealed as much as possible until nighttime. At nightfall, we proceeded north again.

Soon I had become too ill to travel. So they stopped somewhere north of Vinh, and I was placed in a temporary prison, which consisted of a little hut on the edge of a village. This little hut was divided into twelve bamboo cells. I was placed in one of these cells, on my stomach with my feet in wooden stocks, such as were used in Salem, Mass. My arms were tied behind me with wet ropes, and I stayed in that position for the next twenty-nine days, except for two periods each day when I was allowed to relieve myself and was fed a small bowl of rice.

My normal weight is 170 pounds, and I estimate that, when I came out of there twenty-nine days later, I was down to about 115 pounds.

After having been there for two weeks, I became aware that they had another American pilot in this same little hut. I didn't see him, but as a prisoner you live in a world of sounds, and I realized they had another man there.

Finally, after the twenty-nine days, we were introduced to each other in a little temple on the side of a steaming rice paddy. The North Vietnamese officers

spoke to us in English, and for the first time I was able to see this other American. He had been out in the bush longer than I, and there he sat with his arm in a huge cast. I estimated that he weighed about 110 pounds. He had a long, straggly beard, and his eyes were well sunken into his head.

As I looked at him in disbelief, I believe he was looking back at me in disbelief. We were then informed we would be put on the back of a truck and taken to Hanoi. This was the first time I realized I wasn't near Hanoi. The guard told us that if either of us tried to communicate with the other, we would be executed on the spot. Needless to say, we did not communicate with each other.

About three days later, in the middle of the night, we arrived in Hanoi. The truck pulled over in a residential area and waited until daylight. When daylight came, the truck proceeded through the city to the "Hanoi Hilton." It was very incongruous as we drove through the city, blindfolded and lying flat on the back of the truck, to hear the noise of trolley cars, the horns of automobiles, and people laughing and chatting.

After about a thirty-minute drive, I would estimate, we arrived at the entrance of the "Hanoi Hilton." I was unloaded first, and I could see over the top of my blindfold that I was being taken inside a building of French architectural design.

This was where most of our flyers had their initial interrogation. Prisoners are also classified here before being shipped out to other camps. I stayed here until November 5, when I was sent on to another camp.

Now, the "Hanoi Hilton" is not like anything we have known before. It is not at all like the famous Stalag we see on the television program every week. It is not like anything we know of that existed in





Germany. It is not like what I know existed in Korea. This is an actual French prison, and our men are kept in prison cells.

Each cell is only wide enough for two men. Many of the cells have leg irons at the foot of the bedboards. The daily life in the "Hanoi Hilton" starts with the gong that wakes you up at approximately 6:00 o'clock in the morning. This is followed by the Radio Hanoi broadcast, on which I will comment later, which lasts for about thirty minutes.

Then they open one cell door at a time, and you are allowed to empty your honey bucket. Later on in the morning, you are allowed to go wash for approximately five minutes, and then the rest of the time you wait until the time to eat, which is approximately 10:30.

The diet consists of watery soup accompanied by bread. Still, I was able to get some of my weight back because there the diet was a little more substantial than I had been getting before. However, when I was released, I weighed only 135 pounds. I would estimate that most of the men I saw (and it was very seldom that I saw another prisoner) were approximately thirty pounds under their normal weight.

The gong rings at noon, and you are supposed to lie down and take a nap for approximately two hours. At 2:00 o'clock the gong rings again and you can get up and spend some time with your own thoughts until it is time to eat again, which is approximately 4:00 o'clock. The meal is exactly the same as you had in the morning. At night, at approximately 8:30, they have more Radio Hanoi, and then the gong rings once more and it is time to go to bed.

Now, this is what our men have been going through, some for as long as six years.

In the middle of November, I was called out in the night and informed that I was going to move to another camp and that my new cell mate was a very seriously wounded man who needed help. I was chosen to take care of him because I was an able-bodied man.

I was transported to this other camp, and this camp,

unlike the "Hanoi Hilton," was probably a converted French garrison, but all the prisons had been converted to hold two or three or a maximum of four men in each cell, and this was the general theme in the camp.

Everything in the way of prisoner activity was done on an isolated basis. For example, when it was our turn to go to wash, the cell door would be opened and we would be escorted down to the location and escorted back and the cell door closed before any other cell door was opened.

It is safe to say that our men in Hanoi have had little or no chance to get together with the other prisoners and reinforce each other.

The type of things you see in movies or on television is strictly propaganda. Occasionally, they bring prisoners together at Christmas time, but the primary purpose is for propaganda, and the way you enter the theaters used for these gatherings is selective.

For example, the theater will be dark and you will fill the theater up from front to back, and down the middle will be a bed sheet so you can't look to the left or right and identify anyone else. There will be nobody sitting directly in front of you, and there will be a guard about every third prisoner so there is little chance to communicate. But Yankee ingenuity being what it is, the people would be communicating.

I stayed in this camp until February of 1968 when I was released. To this day, the best answer that we can come up with as to why nine Americans have been released is that we believe Hanoi is very sensitive about their world image.

In 1967, they were accused of inhumane treatment, as evidenced by the fact that they paraded our men through the streets, and also some unfavorable publicity occurred in some of our national magazines.

We feel the decision was therefore made to release some relatively healthy prisoners who had not been there long, as proof positive to the people back here that they do have humane treatment.

I am here to tell you that their efforts failed, because our country can see through that sort of thing.

*(Continued on following page)*



The idea of releasing somebody who had been in a short time was that he wouldn't have much to tell.

Now, I would like to say a word about propaganda. I have described our daily life in each camp very briefly, but I left out one point and that is that inside each cell or each room is a loudspeaker, over which we received the Radio Hanoi broadcast twice a day and endless hours of propaganda.

Radio Hanoi is a half-hour radio program that is being broadcast to our troops in South Vietnam in order to destroy their morale. These programs have heavy racial overtones. I am sure that some of the things I heard on these programs had been taped in the United States. The programs were edited for our purposes as prisoners in Hanoi.

Now, the rest of the day was spent in reading ridiculous propaganda statements to us. And one of the most cruel things I have ever observed occurred almost weekly, and that is that they have letters that have been taken from the bodies of our men killed in battle in South Vietnam. Perhaps a man had just written a letter home, went out on a mission and was killed, and the letter was found in his pocket.

These letters found their way to Hanoi, and they would be read to us with a brief history of the man, followed by a propaganda statement.

I would like to call your attention to the fact that we were not treated as prisoners of war: we were treated as criminals. Upon arrival in Hanoi, on the back of the first cell I entered, there was a set of regulations with a preamble that went like this: "Under

the new policy, the criminal will. . . ." and then they had four regulations you had to memorize. Each one started out by saying, "The criminal will do this and the criminal will do that."

Any attempt on our part to bring up the fact that we were prisoners of war entitled to certain rights under the Geneva Convention resulted in it being very forcibly brought to our attention that we were not prisoners but criminals, because our country had not declared war, and had to answer for this.

The North Vietnamese did not, in any sense of the word, comply with the Geneva Convention. This is evidenced by the fact that they have never seen fit to publish an official list of known prisoners of war so that the people back here in the United States can know the fate of their loved ones and get on with their lives, whatever choice that leaves them.

This, in my opinion, is the most diabolically cruel act that Hanoi has heaped upon our society back here today. We have approximately 1,000 families who are in the limbo of the missing-in-action category, and I can't think of a more excruciating category to be in.

The North Vietnamese have not complied with the Geneva Convention in the mail situation either. Mail has been very sporadic. It has been better lately, but still sporadic.

In conclusion, I think we can safely say that the North Vietnamese will go down in history as the most inhumane and cruel enemy we have ever fought because of the sheer number of years they are making so many of our men suffer.—END

One of the most inspiring spheres of activity at AFA's National Convention was the widespread attention devoted to the MIA/POW situation. In fact, the fate of our men being held captive in Southeast Asia provided an underlying theme for the entire Convention and was the subject of a special seminar. The consensus was that the campaign to obtain more humane treatment for the MIA/POWs must continue in high gear. As was noted by the Seminar Moderator, Brig. Gen. Daniel "Chappie" James, concerning . . .

# The MIA/POW Campaign: 'We Have Not Reached Our Goal'

By Maurice L. Lien

SPECIAL EDITOR FOR MIA/POW AFFAIRS

**T**HE North Vietnamese will go down in history as the most inhumane and cruel enemy we have ever fought because of the sheer number of years they are making so many of our men suffer," declared USAF Lt. Col. Norris M. Overly, a former prisoner of war in Vietnam.

Colonel Overly was speaking at the MIA/POW Seminar, a major event on the program of AFA's 1970 National Convention, where attention was focused on the plight of Americans who are missing in action or held prisoner in Southeast Asia.

Gone from the back cover of the Convention program this year was the traditional, lighthearted greeting from Steve Canyon and a smiling and voluptuous Miss Lace. This year in that space, the nation's top aerospace cartoonist, Milton Caniff, who is also a long-time member of AFA's Board of Directors, had a somber Miss Lace who was reporting, "Sorry my guy won't be with you. He's still, I believe, a prisoner of war in North Vietnam."

Gone, also, were the usual laughter and congratulations to AFA "family" award winners at the opening ceremonies. This year's program at that event produced a hushed and serious mood as Convention delegates previewed an Air Force film describing the treatment a prisoner receives at the hands of the Communists.

Next to the AFA registration desk at the Sheraton-Park Hotel were two larger-than-life photos of prisoners of war—enlargements of photos that had been released by Hanoi for propaganda purposes. They were a constant reminder to all at the Convention that some AFA members could not attend this year's meeting. These served also as a backdrop for a petition-signing desk manned by families of the missing and prisoners. Open a total of about twenty-five hours during the four-day meeting, the desk collected more than 2,500 signatures, and the family members passed out thousands of bumper stickers, ministickers, copies of a bro-

chure, and other materials furnished by AFA's Eglin, Fla., Chapter.

High-level attention was focused on the plight of the missing and prisoners on Tuesday evening, September 22, when Mrs. George D. Hardy, wife of AFA's national President, hosted a small dinner party at the Washington Hilton Hotel. Special guests were six wives from the League of Families of Prisoners and Missing in Southeast Asia, who met with Mrs. Robert C. Seamans, Jr., wife of the Secretary of the Air Force; Mrs. John D. Ryan, wife of the USAF Chief of Staff; and Mrs. H. L. Hogan, III, whose husband is Director of Information for the Air Force.

## New Certificates of Honor

On Wednesday morning, September 23, at the opening of the MIA/POW seminar, AFA President Hardy made the first presentations of a newly created award, a Certificate of Honor, given by the Association "for outstanding service to the cause of human rights." The

*(Continued on following page)*



**Brig. Gen. Daniel "Chappie" James, Deputy Assistant Secretary of Defense for Public Affairs, was moderator for the MIA/POW Seminar. DoD has "seen encouraging results" from publicity and letter-writing campaigns, he reported, "but we have not reached our goal."**

award is made to individuals or groups, in recognition of actions in support of the missing and prisoners. Appropriately, the first certificate went to the National League of Families of Prisoners and Missing in Southeast Asia. It was accepted by Mrs. James B. Stockdale, then Chairman of the League's Board of Directors.

Certificates were also presented to the Fort Worth, Tex., *Star-Telegram*, and accepted by its publisher, Amon Carter, Jr., who was himself a POW for twenty-eight months during World War II; to the Fairchild Hiller Corp., accepted by Executive Vice President Charles Collis; to the Pottstown, Pa., *Mercury*, accepted by Sen. Richard S. Schweiker (R-Pa.); to the US Jaycees, accepted by Franklin D. Simmons, Jr., Virginia state Jaycee president; and to Col. Harry G. Howton, USAF (Ret.), of Fort Walton Beach, Fla.

Brig. Gen. "Chappie" James served as Moderator for the MIA/POW Seminar. The program included Colonel Overly's account of his capture and imprisonment (*the full text of Colonel Overly's statement begins on page 86*); reports from the Department of State, Red Cross, and Department of Defense; and comments from the wife of an Air Force colonel missing in action, and from two journalists.

### 'We Have Not Reached Our Goal'

The purpose of the seminar was to explore new ways in which the public can help influence the Communists to comply with the Geneva Convention. "The effort, creativity, and initiative shown by those taking an active part in this humanitarian cause have been encouraging," General James noted, "but we have not reached our goal.

"We always get the questions," he said, "are we doing any good and have we seen any results?"

"Why, sure, we have seen results. I can give you one specific. There was a total of 256 letters [received by families] by the end of 1968. In 1969, when this big push was started and when the Air Force Association—with their wonderful organ, *AIR FORCE Magazine*—launched out there and got things going and started spurring people to get with it, the total rose to 699 letters—an upward trend that started in late October and early November."

As of September 1, of this year, he said, DoD had been notified of the reception of a total of 2,148 letters.

Reporting on activities by the State Department was Frank A. Sieverts, Special Assistant for POW matters to the Under Secretary of State. Many talks are private, he noted, but there are continuous diplomatic efforts

going on at several levels, including those at the Paris peace talks.

Illustrating the type of presentations made in Paris, Mr. Sieverts quoted from remarks made there recently by then top US negotiator Ambassador Philip C. Habib: ". . . We have every right to seek for our prisoners of war the treatment which is theirs by right, by reason, and by international law. Today, as on other days, you have avoided an issue on which there is no logical reason for us not to make some progress. . . ."

On the POW question, Mr. Sieverts said, the North Vietnamese sit in silence, "perhaps uncertain how to respond." In every other aspect, he said, their propaganda has a ready response.

Assessing the State Department's reaction to a recent apparent change in the Viet Cong—and Hanoi's—position regarding POWs, Mr. Sieverts said, "In the name of the National Liberation Front, the other side, to no one's surprise, forged a direct link between US troop withdrawals and the discussion of the release of prisoners. It is another effort to use the prisoners as hostages to extract concessions from our side, to accomplish aims which they have not been able to accomplish by other means."

Reporting on other efforts, Mr. Sieverts said, "We have, for years, carried out an active diplomacy to bring to the attention of governments throughout the world . . . our very great concern on this subject. . . . It is in the spirit of a humanitarian framework that we have found universal acceptance for the appeals which we have made.

"We are supported by the wide-ranging public efforts by which the American people, led by organizations like the Air Force Association, and, of course, the wives and families of the men themselves, have created a ground swell that ought to become a tidal wave of concern.

"It is this subject that has put the North Vietnamese on the spot in a way that diplomatic efforts alone could never have done."

Responding to a question about the possibility of economic sanctions, or a worldwide boycott against Hanoi, another official said, "There have been discussions, [but] some third governments, which have honestly helped us . . . feel they have to retreat the minute they consider that their representations to Hanoi would have to be based on something beyond these purely humanitarian considerations. . . . In effect they say, 'Leave us out of the political questions and military questions. . . . We see your case and want to help, but we do not want to become involved.'"

### The Red Cross Role

Also on the list of speakers was Robert C. Lewis, Vice President of the American Red Cross, who said there is no question that North Vietnam is violating the Geneva Convention, which they signed in 1957.

In addition to Hanoi's inhumane treatment of prisoners, Mr. Lewis said, citing an article calling for identification of each wounded, sick, or dead person known to an enemy, "There is no evidence that Hanoi has made any effort to notify the information bureau of our government of any of those they have found dead on the battlefield."



Detailed reports were presented at the MIA/POW Seminar by Frank A. Sieverts (left), of the US State Department; by Robert C. Lewis (center), of the American Red Cross; and by Robert A. Ware (right), then Deputy Assistant Secretary of Defense for International Security Affairs.

Robert A. Ware, then Deputy Assistant Secretary of Defense for International Security Affairs, admitted to the seminar audience that the matter of the MIA/POWs "is the most frustrating problem we've ever had."

Worldwide public opinion has brought about some improvements, he said, citing the increase in letters and mailing of packages. "Up to last January, Hanoi had allowed our men to receive packages on only three occasions: Christmas of '68, in July of '69, and Christmas of '69. In January of this year, Hanoi announced that it would allow the men in North Vietnam to receive a package every two months."

On the issue of identification of men held by the Communists, Mr. Ware said, "We demand the names of all prisoners of war held by the enemy—not just those Hanoi has permitted to write."

"We also keep demanding the names of the men held captive in the South Vietnam territory and in Laos. We are almost totally uninformed about these others. Hanoi is sort of brazen about it. They say it is not their concern. We reject this."

### Worldwide Reactions

Reporting on reactions from around the world to publicity campaigns mounted in the US was Mrs. Heather David, Pentagon reporter for Fairchild Publications, who has traveled to Vietnam, Laos, and Paris with MIA/POW families. The point has been raised, she said, that the Nixon Administration is attempting to cloud the basic issue of the war, in an attempt to lessen public reaction abroad against US involvement in Southeast Asia. "We talked to many journalists over there, and many are from countries who disapprove of the US involvement in Vietnam. We found, at least a few months ago, there is quite a bit of cynicism about these efforts."

An optimistic report was made on news-media coverage in the US of the plight of MIA/POWs and their families, by Louis R. Stockstill. Mr. Stockstill is 1970 winner of AFA's Gill Robb Wilson Trophy for Arts and Letters, for his article "The Forgotten Americans of the Vietnam War," which appeared originally in this magazine's October '69 issue and has been extensively reprinted. He now serves as press adviser to the National League of Families.

"With all the examples I could give you of good coverage, bad coverage, or no coverage, which are so apparent to those of us who follow this issue from day to day," he said, "I would have to say the trend is encouraging and optimistic."

A major reason for a strong upswing in publicity in recent months, Mr. Stockstill suggested, is the activity of the National League of Families. Representing that group on the panel was Mrs. Bobby G. Vinson, who, with strong statements and direct questions, left no doubt about the League's determination to secure humane treatment and eventual freedom for their men.

Mrs. Vinson, wife of an Air Force colonel who is missing in action in North Vietnam, said, "The press and many elected officials keep bringing up Con Son [the offshore South Vietnamese prison compound]. Someone asked me if I would like for my husband to be in Con Son. Under the circumstances, all I can say



MIA/POW seminar panelists were (left to right) Lt. Col. Norris M. Overly; Mrs. Bobby G. Vinson, whose Air Force husband is listed missing in action in Southeast Asia; and journalists Mrs. Heather David and Louis R. Stockstill.

is, yes, I would like for him to be in any prison, anywhere.

"If everything that we have read about Con Son is true, it is obviously not a model prison, but the International Committee of the Red Cross has at least been allowed in, and I have heard that changes have been effected. I wish to God that these same groups will be allowed into the Communist prisons."

Posing direct questions to the audience, Mrs. Vinson asked, "Do you believe that the individual counts? Do you believe that the men held captive in Southeast Asia count? Do they count enough [for you] to exert every means to return them to their families and country?"

### Six Years of Words

"For six years, we wives have been given beautiful words, sympathy, and apologies. When will we obtain the safe return of these men? These men have been faithful to this country and government. When is this faith to be returned? When [my husband] left for Southeast Asia, he did not think it would be left up to me to bail him out. It is time people stopped hiding behind women's skirts.

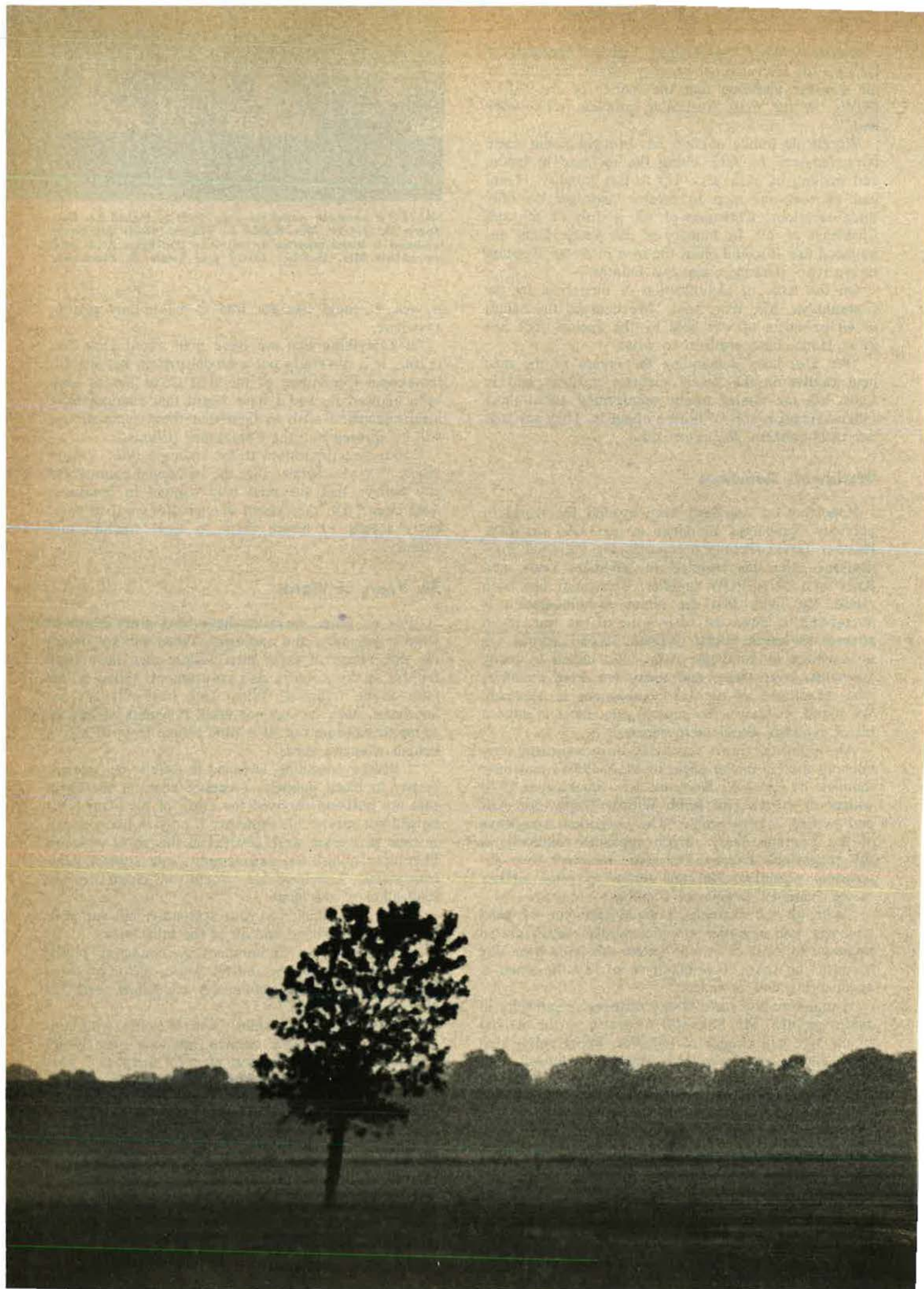
"I dislike crusading women. It upsets me tremendously to bleed publicly. I cannot bear, in the event that my husband survived the crash of his plane, that he will not survive his captivity. If only as many words in time and space were devoted to this as to women's liberation, miniskirts, pornography, and student demonstrations, I believe we would be closer to the realization of our goal.

"I am not asking for your sympathy, but for your help for my husband and all of the other men. . . . If it is true that the Communists are watching public opinion in this country, and the world, please let them know that the world community condemns them for this inhumane action."

In adjourning the seminar, General James, who himself flew seventy-eight combat missions over North Vietnam, said, "The saddest piece of airspace is that which exists between me and where a man was when he left. They were guys just like us and, as Mrs. Vinson said, there, but for the grace of God, go I.

"I intend to do something about it, and I intend to continue trying everything that is possible within the limits of my ability—sometimes beyond. I just ask you to join me."

He was speaking not only to the seminar audience, but to all Americans.—END





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The Crusader has scored more victories per encounter than any other supersonic U. S. fighter.

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It's easy to fly. It has more thrust and agility. Its wing is an improvement of one that pilots say is the best dogfight wing in the sky — the one on the Crusader.

The V-1000 can defend against air attack.

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It's as easy to service and maintain as a modern fighter can be.

The Vought V-1000 could be to the '70s what the Crusader is now: The fighter nobody wants to fight.

Stationed around the Free World, it will keep a lot of peace.

**VOUGHT  
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AN LTV AEROSPACE COMPANY



For a liberal education on the newest developments in the aerospace industry, about 5,000 representatives from USAF and other government agencies toured 26,000 square feet of exhibit area. They also listened to briefings, asked questions, and tinkered with displays set up by forty-three major aerospace/defense firms at . . .

# AFA's 1970 Aerospace Development Briefings

By Claude Witze

SENIOR EDITOR, AIR FORCE MAGAZINE

**Y**OU CAN go to school for seven or eight weeks right here."

The comment was volunteered by USAF's Chief of Staff, Gen. John D. Ryan, as he wound up his visit to AFA's 1970 Aerospace Briefings and Displays. The General had toured nearly 26,000 square feet of display area in Washington's monstrous Sher-

aton-Park Hotel, where forty-three companies participated in the three-day industry effort combined with AFA's twenty-fourth National Convention.

About 5,000 persons visited the exhibits, and at least 3,000 of them listened to the briefings conducted by companies, concerning their activity in today's aero-  
*(Continued on page 99)*



Going up and going down, old USAF friends meet on the escalator leading to AFA's big exhibit hall. Facing camera, on the right, is Lt. Gen. E. B. "Ben" LeBailly, now serving as Chairman of the Inter-American Defense Board. He is a former Commander of the Sixteenth Air Force and USAF Director of Information.

Registration for conducted tours and aerospace industry briefings looks more confusing than it really is. The tours went smoothly for the government and military executives who listened to ten-minute lectures by company experts. This format for AFA's industry effort was started in 1964 and has been gaining in popularity ever since.



Escort leads group on Tour B from one lecture to another, past exhibit of Williams Research Corp., which featured

small turbine technology. Mockup of lift device (right) was dressed up by the flight costume of its "pilot."

## AEROSPACE INDUSTRY ROLL OF HONOR

The following companies conducted briefings at the 1970 AFA National Convention. The briefing subjects are noted below with the company names.

**Aerojet Solid Propulsion Co.**  
"Controllable Solids and Minuteman Propulsion Systems"

**American Telephone & Telegraph Co.**  
"Communication Innovation for a Changing Environment"

**AVCO Corp.**  
"At-430: One Radio for Worldwide HF/VHF Operation;  
Turbine Propulsion Systems to Meet New AF Requirements"

**Bell Helicopter Co.**  
"UH-1N and Prop-Rotor V/STOL Concepts and Applications"

**Boeing Co.**  
"The AWACS Program"

**Control Data Corp.**  
"Fourth-Generation Hi-Speed Avionics Digital Computer"  
"Military Products for Air Force Applications"  
"Projected Map Display"

**General Dynamics Corp.**  
"F-111 Report"

**General Electric Co.**  
**Aircraft Equipment Div.**  
"Helicopter Hover Positioning Device  
and 20-mm Lightweight Gun Pod"  
"Digital Flight Control Systems"

**Hercules Incorporated**  
"Advanced Composites—The New Structural Material"

**International Business Machines Corp.**  
"Advanced Avionics Technology"

**Litton Industries**  
**Data Systems Div.**  
"Field Deployable Information Systems"

**Lockheed Aircraft Corp.**  
**Lockheed Electronics Co.**  
"MADAR: Malfunction Detection, Analysis,  
and Recording on the C-5A"  
**Lockheed-Georgia Co.**  
"Airlift Modernization"  
**Lockheed Propulsion Co.**  
"SRAM Motor Development"

**LTV Aerospace Corp.**  
**Vought Aeronautics**  
"Impact of Air Combat Simulation on Fighter Design"  
"USAF A-7D Weapons Delivery Accuracy"

**Martin Marietta Corp.**  
"Titan III for the '70s"  
"Laser Fire Control"

**McDonnell Douglas Corp.**  
**McDonnell Douglas Astronautics Co.**  
"An Integrated Space Transportation System"  
**McDonnell Aircraft Co.**  
"High-Performance Aircraft for Today and Tomorrow"

**North American Rockwell Corp.**  
**Autonetics Div.**  
"Mark II Avionics System"  
**Columbus Div.**  
"Modular Guided Weapon System"  
**Los Angeles Div.**  
"The Soft-Ride Characteristics of the B-1"

**RCA Corporation**  
"Airborne Data Automation; Remote Computing; Time Sharing"

**Sperry Rand Corp.**  
**Sperry Gyroscope Div.**  
"Loran Navigation and Weapon Delivery  
System for Tactical Aircraft"  
**UNIVAC Div.**  
"Command and Control—The Decade Ahead"

**Stresskin Products Co.**  
"Stresskin All-Welded Honeycomb Sandwich"

**Teledyne CAE**  
"Small Turbojet/Fan Engine Development and Applications"

**Teledyne Ryan Aeronautical**  
"Teledyne Ryan Firebee Target Systems;  
Doppler Navigation Radars"

**TRW Systems**  
"A Look at Navsat/UNCI Compatibility"

**United Aircraft Corp.**  
**Pratt & Whitney Aircraft Div.**  
"Reusable Rocket Engine"

**Westinghouse Electric Co.**  
**Aerospace & Electronics Systems Div.**  
**Electronic Systems Support Div.**  
"Avionic Systems of the Future"

**Williams Research Corp.**  
"Advanced Small Turbojet/Fan (Development)"

**Wyman-Gordon Co.**  
"Current Developments in Forging for Aerospace"

The following companies displayed their products and equipment, as noted below, at the AFA National Convention, but did not conduct briefings.

**Astronautics Corp. of America**  
Integrated Avionics Display System.

**Beech Aircraft Corp.**  
A summarization of some of the more pertinent activities conducted by Beech Aircraft.

**Coca-Cola USA**  
Soft drinks and dispensing equipment.

**Conference Book Service, Inc.**  
New and current professional books and journals.

**Fairchild Hiller Corp.**  
The POW Story.

**Dr. Floyd A. Firestone**  
A transparent instrument panel, fuselage floor, and sidewalls.

**General Electric Co.**  
**Re-Entry & Environmental Systems Div.**  
Various Re-Entry and Environmental System products.

**Howell Instruments, Inc.**  
Jet engine instrumentation.

**Jet Craft, Ltd.**  
Paintings and models of Jet Craft's "Mystery Jet."

**Kawecki Beryllco Industries, Inc.**  
Developments in beryllium metal for aerospace applications.

**Pan American World Airways**  
The Pan Am fleet of aircraft and the worldwide operational capability it makes available to the US government.

**Pepsi-Cola Co.**  
Soft drink products.

**Raytheon Co.**  
Sparrow and Sidewinder missiles and phased-array radar.

**XYZIX Information Corp.**  
How the results of Air Force project PIMO (Presentation of Information for Maintenance and Operation) are being applied to the Vietnamization effort.



Martin Marietta Corp. presented two briefings. This group is hearing a discussion of current and planned Titan III applications. The other lecture was on laser fire control, including a demonstration of the company's accomplishments.

space technology. Fourteen exhibitors had no briefings. The remainder took advantage of the opportunity to talk about their programs, some of them, such as Lockheed, North American, and Martin Marietta, offering two or three separate lectures. (See accompanying box for full list.)

For the veteran, there were many interesting contrasts between the 1970 displays and those of other years. The AFA program dates back to 1964, in its present format, and for many years before that as a more conventional industry exhibition.

This year, for the first time in memory, there was no aircraft engine on display. The Pratt & Whitney Div. of United Aircraft Corp. featured the reusable rocket engine it is developing for application in the space shuttle, with a full-scale mockup on display. General Electric, another major engine-maker, showed its digital flight and propulsion-control systems and how they can be used to improve aircraft performance, versatility, and reliability. Of equal interest was GE's lecture and five-minute movie on a new 20-mm light-weight gun pod and the ammunition-handling system for the Air Force's F-4E fighter.

This does not mean that turbines were absent, but where they appeared they had nothing to do with airplanes and demonstrated the shifting applications of aerospace technology. Teledyne CAE had small gas-turbine hardware on display and showed how it can be used in such wingless devices as the Aercab and a turbine-powered racing automobile.

Also in the family, but deliberately located in a distant part of the exhibit hall, was a presentation about the Firebee aerial target system, presented by Teledyne Ryan Aeronautical. The advanced Doppler radar was featured by this firm.

Firms specializing in electronic equipment—including American Telephone & Telegraph, TRW Systems, RCA, IBM, Control Data Corp., UNIVAC Div. of Sperry Rand, Litton Industries, Westinghouse, and the Autonetics Div. of North American Rockwell—came up this year with a variety of do-it-yourself exhibits. The advantage is that they put the mysteries of computer technology into common language and demonstrate what can be done in terms the nonexpert can

(Continued on following page)



AWACS program was the subject of the Boeing Co. presentation. Large model of the aircraft, foreground, was scrutinized by both passersby and those attending the lecture.



An actual A-7D cockpit was used by LTV Aerospace to show how a pilot goes through a sortie. This presentation was later moved to the Pentagon concourse for a four-day stand.



The telephone company's new Picturephone was seen for the first time by most visitors. It was part of AT&T's exhibit. Other communications equipment in background included high-speed teleprinter and computer devices.

understand. Not a single visitor was heard to classify any of these as "gimmicks." They were openly accepted as instructive devices—amusing and effective attention-getters—that made the computer more understandable. And not one of them failed to show what a computer can do.

AT&T showed what communication is doing and will do, featuring their new Picturephone service—a visual telephone—the high-speed teleprinter, and magnetic-tape terminal. At the RCA exhibit, the visitor was invited to sit down at a Video Data Terminal—an electric typewriter with a TV screen over the keyboard—and go through an exercise. In it, he simulated a command and control problem and "talked" to a computer, located in New Jersey, that helped him solve the problem.

Control Data Corp. put emphasis on its high-speed avionics digital computer. The application in tactical problems—targeting in particular—was demonstrated by a pool game, carried on a TV screen. The visitor was given an opportunity to compete with the computer, with the computer usually winning. There were exceptions to this, however. Several times a day during the show, a skilled visitor would sink all the balls before the computer got its turn. But in most cases, once the computer got its turn, the table was swiftly

and skillfully cleared. The computer obviously knew more about direction, impact, and the friction of the ball crossing the table than most of its competitors.

One of the more spectacular demonstrations was provided by LTV Aerospace, which had trucked an actual A-7D cockpit section to the hall from the plant in Texas. The cockpit served as a podium for the lecturer, who took each briefing group with him through a sortie. Slides were used to add to the simulation of an all-weather attack on an enemy target, with the possibility of diversion to a target of opportunity.

The real point to the demonstration was that USAF and LTV have "engineered out" many of the pilot's navigation and target-seeking problems. A computer, Doppler radar, armament station controls, a projected map display, and forward-looking radar add to his native capability. After the AFA Convention, the demonstration was moved to the Pentagon, where it was on display for four days.

McDonnell Douglas Corp. was represented by both its aircraft and astronautics operations. They featured what is needed to achieve the objectives of the space shuttle, such as the orbital workshop, the space station, and the space tug. There was a review of the company's success in fighter airplanes, featuring the history of the F-4, but with minimum mention of the new F-15, a project that USAF presumably is reluctant to publicize.

Lockheed Aircraft Corp. was a major participant, featuring the mission potential of the C-5A transport and the performance capability of the C-130 in a STOL configuration. The company says the STOL C-130 can accomplish a dual role—it can carry the same payload



Popular Joe Higgins, Dodge Safety Sheriff and Hollywood personality, was an AFA delegate from California. He greeted busloads of exhibit visitors from government agencies.



USAF's Chief of Staff, Gen. John D. Ryan, gives his own lecture at General Electric's exhibit. It is about the company's 20-mm lightweight gun pod and ammunition-handling system for the F-4E.



Largest titanium beam ever forged, shown by Wyman-Gordon, is made for main landing-gear support in the Boeing 747. Four beams, each weighing 4,000 pounds, go in each plane.



Zack Moseley, cartoonist creator of "Smilin' Jack," was a member of the Westinghouse exhibit team. He signed many autographs for guests and spun tales about the old days.

as the standard C-130E, but into airstrips of only half the length.

Lockheed Electronics displayed MADAR, a device that will isolate and identify malfunctions in the C-5A. The Missiles and Space Co., part of Lockheed, showed satellites for research and communications.

Featured by General Dynamics was a film and demonstration report on the current status of the F-111. At one point, the lecturer uncovered an automobile. It had been compacted into a small block of smashed steel by a pressure equal to that used in the F-111 construction and test program. Emphasis was put on the airplane's high performance and safety records.

It is not possible, in this space, to cover all the briefings. Boeing Co.'s briefing featured the AWACS program. Martin Marietta discussed future applications of the Titan III missile, a laser fire-control system, and the space shuttle. Avco Corp. centered its display on reentry systems, materials, and gas-turbine engines. Aerojet discussed solid rocket propulsion and its application, both in the Minuteman program and future space missions. Bell Helicopter Co. reported on the

new USAF UH-1N helicopter and the firm's interest in V/STOL transports. North American Rockwell discussed guided-weapon systems—"smart bombs"—the Mark II avionics system, and offered a briefing on USAF's new B-1 bomber. Featured here was the "soft-ride" characteristic of the aircraft, designed to relieve crew fatigue and improve flying qualities of the bomber.

Escorts for the briefing parties were provided by the USAF Honor Guard. These men also reported any problems they saw with the company presentations. At the critique in the afternoon of the first day, the participating companies were given this information and the opportunity to change their briefings, and improve them, if they wanted to do so. Some of them did.

The guided tours to the industry briefings were attended by officers and employees of more than fifty USAF offices and such other agencies as the Atomic Energy Commission, the Department of Commerce, the Joint Chiefs of Staff, NASA, the National Science Foundation, the Army and Navy, State Department, the FAA, the Office of Education, and the Library of Congress.—END



# AFA's Policy Resolutions for 1970-71

## Prisoners of War and Missing in Action

WHEREAS, Department of Defense reports state that more than 1,500 American servicemen are either missing in action or prisoners of war in Southeast Asia; and

WHEREAS, the government of North Vietnam is deliberately and cynically exploiting, for purposes of propaganda and political pressure, the tragedy and anguish of these men and their families by refusing to comply with the requirements for prisoner-of-war treatment prescribed by the Geneva Convention to which they are a signator; and

WHEREAS, repeated efforts by the US government and appeals on the part of wives, children, parents, and relatives of those unfortunate victims of Communist violence have proved ineffective;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association, together with other organizations, urges, in the name of humanity and decency, expanded efforts by the United States government at the Paris Peace Talks, within the United Nations and bilaterally with governments of other nations, and by other suitable means, to demand full adherence by the government of North Vietnam to the provisions of the Geneva Convention covering treatment of prisoners of war.

## Air Force Defense of Minuteman

WHEREAS, deterrence of global conflict must be accorded the highest priority in national affairs; and

WHEREAS, protection of our strategic forces is essential to this deterrent posture; and

WHEREAS, the Air Force Association is on record in support of the President's decision to proceed with the development and deployment of an antiballistic missile program to protect our strategic forces; and

WHEREAS, the Air Force Association has recognized the need for a review of the ABM program based on "changes in the threat as reflected in intelligence reports"; and

WHEREAS, our strategic posture is a triad of the land-based Minuteman ICBM, land-based bombers, and submarine-launched ballistic missiles; and

WHEREAS, a survivable and secure Minuteman missile, equipped with advanced methods for multiple delivery, is fundamental in maintaining sufficiency of the triad; and

WHEREAS, protection of the Minuteman missile, under

the President's ABM program, requires reenforcement to cope with "changes in the threat"; and

WHEREAS, a collocated and integrated Hardpoint defense system has been recognized as the most effective means for such reenforcement;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association calls upon the Administration and the Congress to authorize Air Force development and deployment of a Minuteman Hardpoint defense system as a key element in the President's antiballistic missile program.

## B-1 Advanced Manned Strategic Aircraft

WHEREAS, under current planning the manned bomber force through the late 1970s will consist of only B-52 and FB-111 aircraft; and

WHEREAS, the FB-111 will not be capable of meeting all strategic requirements; and

WHEREAS, the B-52s remaining in the late 1970s will be from sixteen to eighteen years old, technically obsolete, and expensive to maintain; and

WHEREAS, the Air Force Association has consistently urged the development and procurement of an advanced manned strategic aircraft to ensure that the United States maintains a balanced strategic capability in the years ahead; and

WHEREAS, the Congress has appropriated funds for engineering development of the B-1 and the Air Force has awarded engineering development contracts for the airframe, systems, and engines of the B-1;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association urges the Administration and the Congress to support production and deployment of the B-1 bomber at the earliest possible date in order that our defense posture not be degraded or put at risk by total reliance on unmanned strategic weapon systems.

## F-15 Advanced Fighter Aircraft

WHEREAS, the history of military conflicts has confirmed that superiority in the air is essential to winning on the ground; and

WHEREAS, the Soviet Union has already displayed new fighter aircraft estimated to have maximum speeds of about 2,000 mph; and

WHEREAS, to gain and maintain air superiority we are relying largely on aircraft which are tailored to interdiction and close-support roles; and

WHEREAS, these aircraft were designed from ten to fifteen years ago; and

WHEREAS, Air Force officials have proposed the development and production of an advanced fighter, the F-15, for the air-superiority role as a program of the highest priority; and

WHEREAS, in early 1970 the Air Force awarded contracts for systems acquisition and engine development of the F-15;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association urges the Administration and the Congress to continue to support the development and production of the F-15 advanced air-superiority fighter aircraft, with the goal of having such aircraft operational in the Air Force inventory early in the 1970s.

## Close-Air-Support Aircraft

WHEREAS, the history of warfare during the past thirty years has demonstrated consistently that close air support is essential to the effectiveness of ground force operations; and



WHEREAS, many of the aircraft now used in this role are obsolete and difficult to support and maintain; and

WHEREAS, the Secretary and Chief of Staff of the Air Force have stated an urgent requirement for an aircraft specifically designed to provide effective close air support for highly mobile ground forces in the 1970s; and

WHEREAS, the Air Force has proposed the development of the A-X, a simple and relatively inexpensive aircraft specifically designed for close air support;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association urges the Administration and the Congress to support the development and production of the A-X close-air-support aircraft without delay, with the goal of achieving operational status in the mid-1970s.

## **Aerospace Defense**

WHEREAS, the Soviet Union maintains a stabilized force of long-range bombers; and

WHEREAS, the number of flights by these bombers into the North American airspace, including recent flights to Cuba, has increased; and

WHEREAS, the aerospace defense forces of the United States are rapidly falling behind in capability to meet a continually growing requirement; and

WHEREAS, these urgent requirements include an advanced manned interceptor, airborne warning and control system, over-the-horizon, forward and backscatter radars, advanced sensors, spaceborne surveillance systems, boost and midcourse destruct antiballistic missiles systems, plus a terminal homing interceptor and a direct interceptor system;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association urges the Administration and the Congress to provide programs and funds adequate to meet the aerospace defense needs of this nation.

## **Improvement of Ballistic Missile Posture**

WHEREAS, land-launched strategic missiles are a major element of the US strategic deterrent force; and

WHEREAS, the need for continued improvement of our strategic missile capability has been reflected in the development, testing, and deployment of advanced versions of the Minuteman missile, the major element of the US land-launched missile force; and

WHEREAS, further improvement in strategic missile systems undoubtedly will be required to meet an evolving threat; and

WHEREAS, either improvement of existing missiles or the possible future development of a follow-on to the Minuteman III missile can be achieved most rapidly if developmental work on advanced subsystems technology is completed;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association urges the Administration and the Congress to support expanded programs for development of ballistic missile subsystems technology applicable to refinement of existing missiles or that may be needed in the development of new missiles to meet a future threat.

## **American Space Activities**

WHEREAS, the continuity of American space activities and the advancement of American space science is of vital importance to the United States; and

WHEREAS, this continuity of effort depends on the retention of highly skilled scientific specialists, especially trained technical personnel, and specifically space-oriented production facilities; and

WHEREAS, recent curtailment of national space funding has had a deleterious effect on American space programs;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association urges the Administration and the Congress to reevaluate fiscal actions affecting American space activities so as to provide adequate funding for a continuity of development and progress in the national space effort.

## **Supersonic Transport**

WHEREAS, the Soviet TU-144 supersonic transport has already met its Mach 2 design objective, and the British-French Concorde is progressing with its flight-test program; and

WHEREAS, the German Federal Republic plans to add its enormous economic and technological resources to a trilateral program to develop an improved, follow-on version of the Concorde; and

WHEREAS, airlines traditionally have leaned toward single-source fleet procurement with the likely result that the absence of an American supersonic transport will substantially impair future sales of US-manufactured subsonic jet transports; and

WHEREAS, the long-time American preeminence in the world commercial aviation market and aeronautical technology stands in danger of being forfeited unless the United States proceeds with its often-delayed SST development program; and

WHEREAS, the benefits from such a program to the United States are estimated to include a worldwide sales potential of \$20 billion by 1990, as well as direct and indirect advantages to the national security of this country; and

WHEREAS, all departments of the federal government, without exception, have now fully endorsed the US SST program as vital to the national interest; and

WHEREAS, the United States trunk airlines have unanimously affirmed their need for a US SST and testified that the cancellation of the program would seriously compromise the meaningful development of US aeronautical technology;

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association urges the Congress to support, without further delay, a full-scale American SST prototype construction program leading to an actual production aircraft to retain this nation's aeronautical lead in the decades to come.

## **Increased Support for Guard and Reserve Forces**

WHEREAS, under law and by tradition the National Guard and Reserve Forces exist to augment and supplement the active military forces of the United States; and

WHEREAS, past failures to so utilize the Guard and Reserve have resulted in undue dependence on the Selective Service System to fulfill the military manpower requirement; and

WHEREAS, the Secretary of Defense, in a Memorandum dated August 21, 1970, recognizes the Guard and Reserve as the "initial and primary source for augmentation of the active forces in any future emergency requiring a rapid and substantial expansion of the active forces";

NOW, THEREFORE, BE IT RESOLVED that the Air Force Association commends the Secretary of Defense for his recognition of the vital contribution the Guard and Reserve can make to the active forces and, further, for directing the provision of the resources required to man and equip the Guard and Reserve at a level consonant with their increased responsibilities; and

BE IT FURTHER RESOLVED that the Air Force Association pledges its support in this effort.—END



At the opening of AFA's annual seminar on Guard and Reserve matters, the audience heard excerpts from Defense Secretary Melvin R. Laird's memo to the Secretaries of the Military Departments, concerning US backup military strength. The strong central theme of that memo provided the basis for instructive talks by the leaders of four top USAF commands—TAC, MAC, AFCS, and ADC. The theme of Secretary Laird's memo gave the guest speakers a natural . . .

# Seminar Spotlight: New Posture for Reserve, Guard Forces

By Patricia R. Muncy

ASSISTANT FOR MILITARY RELATIONS

**B**EFORE a standing-room-only audience, more than 500 Convention delegates and guests jammed the Jefferson Room of the Washington Hilton Hotel on Tuesday afternoon, September 22, for the Air National Guard/Air Force Reserve Seminar, a feature of AFA's twenty-fourth annual National Convention.

An emergency meeting on Capitol Hill prevented the scheduled moderator, Frank M. Slatinshek, Assistant Chief Counsel of the House Armed Services Committee, from appearing. However, his place was ably filled by Dr. Theodore C. Marrs, Deputy Assistant Secretary of Defense (Reserve Affairs).

### Secretary Laird's Memo

In his opening statement, Dr. Marrs read excerpts from the August 21 memorandum (just recently made public) from Secretary of Defense Melvin R. Laird to the Secretaries of the Military Departments. The memo, in fact, quickly became the theme of the entire seminar. The text of Mr. Laird's memo follows:

**SUBJECT: Support for Guard and Reserve Forces**

The President has requested reduced expenditures during Fiscal Year 1971 and extension of these economies into future budgets. Within the Department of Defense, these economies will require reductions in overall strengths and capabilities of the active forces, and increased reliance on the combat and combat support units of the Guard and Reserves. I am concerned with the readiness of Guard and Reserve units to respond to contingency requirements, and with the lack of resources that have been made available to Guard and Reserve

commanders to improve Guard and Reserve readiness.

Public Law 90-168, an outgrowth of similar congressional concern, places responsibility with the respective Secretaries of the Military Departments for recruiting, organizing, equipping, and training of Guard and Reserve Forces. I desire that the Secretaries of the Military Departments provide, in the FY 1972 and future budgets, the necessary resources to permit the appropriate balance in the development of active, Guard, and Reserve Forces.

Emphasis will be given to concurrent consideration of the total forces, active and Reserve, to determine the most advantageous mix to support national strategy and meet the threat. A total force concept will be applied in all aspects of planning, programming, manning, equipping, and employing Guard and Reserve Forces. Application of the con-



**Dr. Theodore C. Marrs, Moderator of the Air National Guard/Air Force Reserve Seminar, is Deputy Secretary of Defense for Reserve Affairs. A brigadier general in the Air Force Reserve, Dr. Marrs earlier served for nearly six years as Deputy for Reserve Affairs in the Office of the Secretary of the Air Force.**



In his opening statement, Dr. Marrs read excerpts from Secretary of Defense Melvin R. Laird's memorandum to the Service Secretaries, concerning support for Guard and Reserve Forces. The memorandum names Guard and Reserve units and individuals of the Selected Reserves as "the initial and primary source for augmentation of the active forces in any future emergency requiring a rapid and substantial expansion of the active forces."

cept will be geared to recognition that in many instances the lower peacetime sustaining costs of Reserve Force units, compared to similar active units, can result in a larger total force for a given budget or the same size force for a lesser budget. In addition, attention will be given to the fact that Guard and Reserve Forces can perform peacetime missions as a by-product or adjunct of training with significant manpower and monetary savings.

Guard and Reserve units and individuals of the Selected Reserves will be prepared to be the initial and primary source for augmentation of the active forces in any future emergency requiring a rapid and substantial expansion of the active forces. Toward this end, the Assistant Secretary of Defense (Manpower and Reserve Affairs) is responsible for coordinating and monitoring actions to achieve the following objectives:

- Increase the readiness, reliability, and timely responsiveness of the combat and combat support units of the Guard and Reserve and individuals of the Reserve.
- Support and maintain minimum average trained strengths of the Selected Reserve as mandated by Congress.
- Provide and maintain combat standard equipment for Guard and Reserve units in the necessary quantities; and provide the necessary controls to identify resources committed for Guard and Reserve logistic support through the planning, programming, budgeting, procurement, and distribution cycle.
- Implement the approved ten-year construction programs for the Guard and Reserves, subject to their accommodation within the currently approved TOA, with priority to facilities that will provide the greatest improvement in readiness levels.
- Provide adequate support of individual and unit Reserve training programs.
- Provide manning levels for technicians and training and administration Reserve support personnel (TARS) equal to full authorization levels.
- Program adequate resources and establish neces-

sary priorities to achieve readiness levels required by appropriate guidance documents as rapidly as possible.

/s/ MELVIN R. LAIRD

In support of the Laird memo, the delegates to AFA's Convention passed the following resolution:

"NOW, THEREFORE, BE IT RESOLVED that the Air Force Association commends the Secretary of Defense for his recognition of the vital contribution the Guard and Reserve can make to the active forces and, further, for directing the provision of the resources required to man and equip the Guard and Reserve at a level consonant with their increased responsibilities; and

"BE IT FURTHER RESOLVED that the Air Force Association pledges its support in this effort."

*Principal speakers at the seminar were Gen. William W. Momyer, Commander, Tactical Air Command; Gen. Jack J. Catton, Commander, Military Airlift Command; Maj. Gen. Paul R. Stoney, Commander, (Continued on following page)*

**Maj. Gen. Paul R. Stoney, Commander, Air Force Communications Service, gave Air Force Guard and Reserve units and people exceptionally high marks for the work they have done worldwide in support of AFCS.**



*Air Force Communications Service; and Maj. Gen. Horace A. Hanes, Vice Commander, Aerospace Defense Command.*

*A Response Panel composed of Maj. Gen. I. G. Brown, Director, Air National Guard; Brig. Gen. Donald J. Campbell, Deputy to the Chief of Air Force Reserve; Maj. Gen. Benjamin J. Webster, Chairman of AFA's Air National Guard Council; and Maj. Gen. Robert E. L. Eaton, USAF (Ret.), Chairman of AFA's Air Reserve Council, also gave brief remarks following speaker presentations.*

*General Stoney, AFSC Commander, opened the series of presentations. His remarks follow:*

## **AF Communications Service**

"During the past four years, I have seen first hand the operation of all Air National Guard and Air Force Reserve units assigned to the Air Force Communications Service. They are a vital part of the aerospace force. The AFCS Reserve Forces program involves 140 Air National Guard and thirty-eight Air Force Reserve units, with an authorized strength of 13,158. In addition, the command is authorized a mobilization augmentation force of 700, making a grand total of 13,858. This equals approximately twenty-five percent of the total AFCS assigned active-force strength of some 60,000 military and civilian personnel.

"I am extremely proud of AFCS's role as one of the principal support commands in the Air Force. It is our job to provide communications, air traffic control, engineering, installation, and maintenance of ground-electronics-communications equipment within the Air Force. Personnel are located at some 700-plus locations around the world.

"Overseas, AFCS is vertically organized, paralleling the commands we support. Within the CONUS, we have the Northern and Southern Communications Areas plus the Tactical Communications Area, which specifically supports the Tactical Air Command. Such an alignment permits us to provide communications-electronics staff functions for these commands as well as the operation and maintenance of their communications-electronics facilities. Thus, our commanders wear two hats—that of the AFCS Commander, and the other as Communications-Electronics Officer on the host commander's staff.

"AFCS Air National Guard and Air Force Reserve units fall into five categories. First are the Mobile Communications Groups, which support Air Force Component Command Post operations, contingency operations, establish bare bases, provide command communications, terminal air traffic control facilities for emergency missions, and support of deployed tactical air operations. They are organized and equipped very similar to their active-duty counterparts and, upon mobilization, would perform the same functions.

"Second, we have the Communications Squadron (Special), which provides personnel to assist in installing, operating, and maintaining communication and electronic equipment in support of the alternate Air Force Command Post.

"Third are the Communication Flights, which support operations of the Military Airlift Command and Tactical Air Command by augmenting or providing

fixed communications at the flying unit's home base or at interim operating locations.

"Fourth, Electronic Installation Squadrons install, maintain, and rehabilitate ground communications, electronic, and meteorological equipment throughout the Air Force.

"Fifth, mobilization augmentees serve as 'under-studies' at major AFCS installations. In the event of recall, they would assume the duties for which they are training; augmenting the office of assignment to accomplish the increased workload that would inevitably result."

## **Integration of Guard and Reserve Units**

"As you can see, our Air National Guard and Air Force Reserve units are closely integrated into the command mission. They augment us in time of war or national emergency, or, if requested, in event of increased tension. To ensure that these forces can, in fact, perform when called, we consider as highest priority the need to establish a sure-fire approach to more realistic and productive active-duty training periods. The program we advocate is to use the training time of our Guard and Reserve elements to handle projects normally accomplished by the active force. Viewed realistically, this is the most effective way to train a man—by doing the exact work with the exact equipment and demands he will face when recalled. It also frees his active counterpart for some other job and saves government money. In other words, we've got to apply our Reserve Forces against live requirements, not exercises.

"An example of what we consider good use of our Reserves was recently provided by the Hawaii Air National Guard's 201st Mobile Communications Squadron. Last year, this unit deployed a team of personnel and equipment to Sattahip, Thailand, where they worked with our 1st Mobile Communications Group in supplying base communications support for the headquarters of SEATO in exercise 'Sea Spirit.' Radio personnel of this same unit have augmented active-duty Air Force teams in support of Apollo missions 8, 9, and 10, on American Samoa. The 201st also deployed a low-frequency beacon and personnel to Johnston Island while the base unit was relocated.

"For Fiscal Year 1971, 13,000 man-days have been allocated to AFCS in addition to days provided for annual field training. At present, electronics and installation Air National Guard troops are on active-duty tours of thirty-one days in Korea, Germany, Alaska, Japan, and the Caribbean area, doing work to help our regular units, or making it unnecessary to hire contractors."

## **Call for Volunteers**

"In July of this year, assistance was requested from the Air National Guard and the Air Force Reserve communication flights to alleviate a temporary shortage of maintenance personnel in Alaska. This was the first time we had called for volunteers for work of this type. Sixty-one personnel answered the call and performed their field training at Anchorage, Fairbanks, Elmendorf, and Ketchikan over a six-week period,

"We in ADC consider both the Reservists and Guardsmen as equal partners in peace and war," said Maj. Gen. Horace A. Hanes, Vice Commander, Aerospace Defense Command. That judgment was shared by other speakers representing the major Air Force commands.



Gen. Jack J. Catton, Commander, Military Airlift Command, pointed out that our "evolving military strategy places great dependence upon mobility," and that MAC's success—in both airlift and support functions—will depend heavily on Air Guard and Reserve augmentation.

working in fifteen-day increments. These men were originally scheduled for training at their home station. Their use in Alaska provided training on modern, up-to-date equipment and pulled us out of a hole at the same time. Many of these Reservists are fine technicians with civilian occupations closely aligned with our work. They required little or no break-in time to become productive in our Alaska stations.

"Another interesting example is our extensive, worldwide use of the Special Project C-97E aircraft, formerly known as 'Talking Bird,' which is operated and maintained by the Oklahoma Air National Guard. Operating as a command and control airborne platform, it has supported our requirement in technical evaluation of air-ground communications, command control, and air traffic control services provided by AFCS.

"These examples represent only a small percentage of the man-days our Reserve Forces annually use for training, but the response has been so successful and the training so realistic and cost-effective that we are going to exploit every opportunity to use every man-day for real live work. It just makes sense.

"Realistic and productive training projects and active-duty periods have been established as our Reserve Forces objective. In addition, we expect to make full use of Reservists throughout the year whenever the situation requires it, and man-days can be obtained, and volunteers are willing to go. We have little trouble getting volunteers.

"Our plan for our communication Reservists is therefore quite clear—to acquire a ready and responsive Reserve Force, trained and equipped to augment the command in every area of its overall mission. This, of course, supports the Total Force Concept. If we're going to provide the maximum return for the defense dollars spent, we must continually review our concept of operations, equipment, and usage to be sure that the Reserve Force structure we maintain is not just going through Mickey Mouse motions, but is prepared to get the job done, whatever it is and wherever it may be. . . .

### Aerospace Defense Command

*General Hanes, representing the Commander, Aerospace Defense Command, gave the second presentation. Following are his remarks:*

"I have a very short message regarding ADC, the National Guard, and the Air Force Reserve.

"We in ADC consider both the Reservists and Guardsmen as equal partners in peace and war. During the past and present, ADC has leaned heavily on the Guard and Reserve to provide full-time and augmentation forces for the defense mission. Both have amply demonstrated the capability to respond to our needs wherever and whenever needed, and both serve as a vital link to our Air Defense people.

"In looking at the immediate future, I foresee our allies over the world taking over an increased share of the task of defending themselves, which will culminate in a reduction of the number of forces overseas, in keeping with the Nixon doctrine.

"Providing adequate defense of the continental United States will then be one of the most important tasks of the armed forces. Therefore, and notwithstanding recent budget reductions, it is my opinion that we can look forward to an era of air defense modernization and growth.

"Further, I look for this modernization to be directed toward the threat of both missiles and aircraft. We currently have a modernization program involving AWACS, over-the-horizon radar, and follow-on interceptors. At this time, I don't anticipate a direct participation by the Air National Guard or the Air Reserve Forces in these new weapon systems. However, I can assure you, both will still be full-time partners in providing forces to ADC for defense against air attack.

"In this regard, let me assure you that ADC will make every effort to help the Guard and Reserves pursue modernization of their forces. . . .

### Military Airlift Command

*Gen. Jack Catton, Commander of the Military Airlift Command, a command that depends heavily on the Air Reserve Forces, particularly its Associate Reserve Crew Program, gave a most stimulating presentation. His remarks:*

"A month ago, we had our Worldwide Combat Airlift Competition out at Travis. For the first time, we had Associate Reserve crews involved—one from each numbered Air Force. They competed right along with the Regular guys—they asked no quarter—no handi-  
(Continued on following page)

cap—no 'give me a break, I'm not the Regular crew chief.' Instead they were asking: 'How we doing—are we ahead?' Their performance was superb. In fact, the 939th from McChord walked off with the Kelly Trophy as the best maintenance outfit in the league, and the flight crews were right in the thick of it.

"That was a month ago—and today if you were to fly on a C-141 anywhere in the MAC system, you could very well be flying with an aircraft commander who is an Air Force Reservist, a first pilot who is on active duty, an engineer who is a Reservist, and a Regular as loadmaster. And you wouldn't be able to tell the difference. That is the essence of the Reserve contribution to MAC—day-to-day excellent performance right alongside our Regular Air Force crews.

"I'll concentrate on airlift—and especially the Associate program—because that's so unique and I'm sure you're interested in its progress. I don't mean to slight the technical services for which we are responsible. The contribution which the Reserve force makes here is both substantial and important.

"But that Associate program—it's a great success story and it bears retelling. The past, present, and future of the Associate units are linked up with the emergence of the C-141/C-5 all-jet team. Two phenomena resulted: We had an active force with an airlift potential limited by men, not machines; we had a reciprocating engine force that was incompatible—and an even greater sin—not cost effective.

"Let's look at each a little closer—for both impact heavily on the subject at hand—the future of the Reserves.

"As the MAC force receives its C-5s to go along with the C-141s, the number of aircraft will be reduced about one-fourth from our posture in the early 1960s, but at the same time the capability will increase more than seven times from that period. The capability to realize the potential inherent in the new aircraft is, however, limited by the manning we currently have or could expect to have in the future active force. Our own experience reinforces the commercial airlines' finding that an all-jet fleet can, should, must be operated at sustained high utilization rates, rates higher than we can expect to achieve with the manning forecast for the 1970s. So we had a personnel deficit in the offing.

"At the same time, we had the second phenomenon stemming from the contrast between an all-jet Regular force and a reciprocating-engine Reserve.

"On one hand, we had a worldwide airlift support system that, for the most part, has been converted to maintenance and materials-handling equipment necessary to support jet aircraft—with flow control set up for jet speed. On the other, we had a fleet of reciprocating-engine Air Guard and Air Force Reserve airlift. If they were to be effectively utilized, they needed either a costly support system, including island bases that would not be efficiently used in peacetime, or the necessary lead time to deploy a full support system in time of contingency.

"In the mid-1960s, OSD recognized this incompatibility and, in fact, they ordered a complete phaseout of MAC-gained Reserve units. MAC, first faced with a personnel shortage of men to match their machines, saw a further loss being proposed. The programmed

phaseout of the MAC-gained Reserve airlift units and the subsequent loss of experienced Reserve airlift people were certainly not in the best interest of the Air Force."

## Reserve Associate Program

"So, as early as 1966, the Military Airlift Command reappraised the situation. We needed something special—a form of responsible Reserve augmentation that would do the job, be cost-effective. As you know, that something special was the Reserve Associate Program.

"Most of you are familiar with the program, but let me refresh you a little—an associate group with 415 people assigned (about 120 are full-time Air Reserve technicians)—a headquarters, a materiel squadron, a support squadron, an aerial port flight, and one airlift squadron for each squadron in the active wing. Currently we have ten C-141 airlift squadrons and a C-9 Associate air-evac squadron. The airlift squadrons are manned on a one-to-one crew-to-aircraft ratio, which represents a better than two-hour-per-aircraft-per-day wartime capacity. The materiel support squadron has the personnel to generate the additional flying hours, and the aerial port flight provides for the increased terminal activity.

"Most important to this organization is the single-standard concept—which means the Reserve crews meet the exact same standards as the active crews do. As a result, MAC gets crew capability that is usable, professional, and motivated. . . .

"But this isn't the only appeal the Associate has. There is a more practical one for these guys who earn their living in civilian clothes. The all-jet trips are much shorter in time. A Reservist on the East Coast flying his C-124 to Southeast Asia can expect to be gone about fifteen days. His counterpart in the Associate Reserves will make the same trip—doing more for Uncle Sam and himself—in just under six days. That's almost two working weeks shorter—you better believe this appeals to the gent who has to take off work to fly. . . .

"How does the future look for our Reserves? I'd have to say it is linked very closely with the future of MAC—and that they both look bright. And I base this on my understanding of the emerging national policy. . . .

"President Nixon expressed his opinion concerning priorities when he said: 'A nation needs many qualities, but it needs faith and confidence above all. Skeptics do not build societies; the idealists are the builders. Only societies that believe in themselves can rise to their challenges. Let us not, then, pose a false choice between meeting our responsibilities abroad and meeting the needs of our people at home. We shall meet both or we shall meet neither.'

"To support this policy, the emerging military strategy is forming this pattern:

"(1) Maintenance of strategic forces of unquestionable sufficiency;

"(2) Limiting the use of American fighting forces in the offshore conflicts that, perhaps, can be handled better by the involved nations' manpower and American advice, weapons, and financial support;

"(3) Reduction of American garrisons overseas; and

"(4) Development of highly mobile, quick-reacting, hard-hitting, general-purpose fighting forces available in the US, ready for use when and where required.

"Our leaders hope that such a military strategy will permit the nation to spend less for national defense—more toward solution of domestic problems. The result is a defense budget at its lowest percentage in the past twenty years—whether you consider percentage of GNP or percentage of total budget."

## A Substantial Challenge

"The challenge to all of us, then, is substantial—we must enhance the quality, responsiveness, and power of the military forces—active and Reserve—we retain. We must be smarter, quicker, and extremely good at what we do.

"The challenge is even greater for us in MAC. The evolving military strategy places great dependence upon mobility—the right kind of mobility—rapid, reliable, and responsive. We are gaining qualitatively—the airlift contribution to that mobility is the C-141/C-5 strategic airlift force. For the first time, we are achieving the kind of mobility that may make a flexible response strategy practical.

"So policy and its supporting strategy are going to make heavy demands on us in our primary mission—airlift for the contingency.

"And if this has an impact on us in MAC, it has great influence on tactical airlift—our interface in the theater.

"On the short-of-mobilization side, the Army closed-loop system—a substantial airlift-requirement producer—is a sample of what we look for in the future. . . .

"And that is simply a combination of active and Reserve Forces so postured that they assure we can meet our maximum contingency requirements through the use of very productive active-force aircraft. This program will extend into the future for the simple reason that it's cost-effective—both in men and machines. Dollar for dollar—man for man—we get more out of the Reserve Associate Program because they fly modern equipment with high productivity on regular missions. . . .

"I have purposely focused in on the Guard/Reserve Forces airlift contributions because airlift is our main business. But that's not to say we don't appreciate the important contributions of the other-than-airlift Guard/Reserve units—

"Let me just mention a few of the real contributors:

- "Reserve squadrons well trained to supplement our active forces in functions such as aerial port, mobile en-route, hospital, and censorship support.

- "Guard units with great potential in aeromedical airlift and air evac.

- "Thirty-nine Guard weather flights that are very important to us.

- "A Reserve rescue force that will begin modernization soon and continue to serve 'that others may live.'

- "And a growing program I am watching with great interest—the Reserve Aeromedical Squadron designed to supplement our C-141 air-evac crews—two Reserve nurses and three Reserve med techs to a crew



Gen. William W. Momyer, Commander, Tactical Air Command, believes that the Nixon Doctrine will place very demanding requirements on tactical air. "We can't afford to have our Reserves equipped with obsolescent weapon systems."

—we have 1,400 people in this program—we are looking for more.

"So, whether you talk airlift or the other support functions, the MAC Guard/Reserve can look to a challenging future."

## Tactical Air Command

*General Momyer, TAC Commander, was the anchor-man for the four major presentations. TAC also is a major user of units of the Air National Guard and Air Force Reserve. General Momyer stated:*

"Tactical Air Command has a long and successful association with the Guard and Reserve Forces, dating back over twenty years. Today TAC is able to draw from our Reserve Forces nearly 60,000 men and more than 1,000 aircraft. We gain more of these resources than the rest of the entire Air Force combined. This force includes some seventy flying units, 45,000 men, 950 aircraft in the Air National Guard, and 13,500 men and some 225 aircraft in the Reserve.

"As the biggest users of Reserve Forces, TAC is also responsible for the training and inspection of these units, as well as the flying safety.

"In return for our effort, we get a sizable dividend in combat-ready units that can respond to multiple contingencies. On many occasions in the past, Air Reserve Forces have been called to active duty, beginning with Korea. After Korea, the next major call-up was the Berlin crisis in 1961. Then, in October of 1962, the Cuban crisis created another need for Air Reserve Forces. . . .

"The *Pueblo* crisis brought the most recent large-scale mobilization of Air Guard and Air Reserve Forces. Three tactical fighter wings and one tactical reconnaissance wing of the Air Guard were called up in 1968. Seven squadrons went to PACAF and operated from bases in Vietnam, Korea, and Japan.

"In addition, 4,000 Reservists came on active duty. Those elements that remained in the US were splintered in with the rest of TAC units and they did an outstanding job of backing up our forces. . . .

"Our Reserve airlift squadrons are flying missions daily in support of the active forces. Last year they airlifted some 3,000 tons in more than 7,000 missions. Air Reserve units dropped over 111,000 troops last year to provide a significant part of the airborne training for the Army. All of our air-refueling support in

*(Continued on following page)*

Europe is provided by National Guard tankers. The rotation of Air Guard tankers to Europe is known as Creek Party. . . .

"We are continuing to make some progress in updating TAC Reserve Forces, but it is not easy and far too slow. Everyone realizes that the major problem facing the Air Guard and the Air Reserves is the challenge of keeping a high degree of effectiveness in spite of equipment that is too old and getting older by the day. In particular, we are providing limited modernization of our Air Force Reserve Forces with more F-100s and C-130s as fast as operations in South Vietnam permit. We are slowly phasing out the F-84s, C-119s, and F-100Cs in favor of A-37s, F-100s, F-105s, C-130As, and RF-101s.

### Modernizing: The No. 1 Problem

"As modern aircraft become available, we will continue replacing this older equipment. Certainly modernizing is the No. 1 problem facing our forces. But it is not by any means the only problem we have had to tackle. We have taken a hard look at the way the flying units are organized. Regardless of the aircraft that are authorized, all flying units are organized the same way. Each is a self-sustaining unit with a group headquarters performing the command and control functions. . . .

"We now have an organizational concept which provides for decentralized maintenance and does away with the dual-deputy system. We must make it easy for the Reserve units to move smoothly into our TAC system when they are mobilized. For this reason, TAC would like to have these units organized more closely like our active-duty units. . . .

"The full impact of a post-Vietnam strategy is yet to emerge, but some bench marks are beginning to appear. From these bench marks there are some fundamental effects on the posture, composition, and modernization of Reserve Forces. It seems to me that the role of our Tactical Air Force will be even more pronounced in the decade ahead than it has been in the past. I reach this conclusion on the assumption that, heretofore, we have been primarily concerned with the development of US tactical air forces for the direct support of combat operations of US forces. As I see the strategy emerging, we are going to depend on countries, whose interests are identified with our aims, to provide for their own ground forces since they are best able to lead and direct them.

"If our interests indicate the necessity for direct United States assistance, US tactical air forces provide immediate assets many of our allies do not possess.

"In addition, we have greater technical capacity, know-how, and demonstrated ability to employ the sophisticated form of firepower represented by the Air Force. If this, then, is the direction in which we are headed, our Tactical Air Force must have a greater degree of flexibility than we have had in the past. . . .

### Demanding Requirements

"Within this framework I see some very demanding requirements for our Reserve Forces. We can't afford to have our Reserves equipped with obsolescent weap-

**Maj. Gen. I. G. Brown,**  
Director of the Air  
National Guard, was  
lead-off man on the  
Response Panel. "We  
are convinced in the  
National Guard Bureau  
that Secretary Laird  
intended that these  
necessary resources  
be made available."



**Brig. Gen. Donald J. Campbell,** Deputy to the Chief of Air Force Reserve, expressed the conviction that the need for the Air Force Reserve will continue to increase. "The Air Force Reserve is ready to respond to any active force need. . . . Just call on us."

on systems. The F-84s, F-100s, B-27s, the C-119s have about reached the end of their useful life. We were fortunate that the F-100s of the Guard were able to be used in the permissive environment of South Vietnam. We would not have been able to use these F-100s over North Vietnam because the enemy defense would not have permitted it.

"It, therefore, seems to me that our Tactical Air Force structure for the Regular and Reserves must be closer together than they have been in the past. . . .

"With the Regular units immediately deployed to combat situations, we must have the means of moving the Reserves into a backup posture without extensive preparation and administrative arrangements. . . .

"The future of our tactical air capability must be quality—quality in equipment, personnel, training, and performance. There should be no significant difference between the standards for Regular and Reserve units, at least not with the tactical air units. To achieve this kind of posture for our Reserve Forces for tactical air operations, we may have to face up to the fact that we can't maintain the size of force we have in the past and equip them with first-line aircraft. . . .

"I don't see how we can reduce our Regular tactical air forces below current levels if the strategy I have hypothesized is valid. The requirement for Regular tactical air forces is higher than it has ever been if we are to meet the contingency requirements that I believe are likely. Hence, there is really no visible means of providing modern equipment to the Reserves by reducing the size of our Regular units. Thus, the



only means by which we can modernize is with increased production of current modern aircraft, yet the tendency has been to reduce the total cost of the forces by reducing new procurements."

## An Old Dilemma

"This really brings us face to face with a dilemma. We have not really changed much since the days when the propeller aircraft went to the Reserves as TAC received jets. . . .

"If we cannot see our way clear to equip the Reserves with front-line aircraft, perhaps we must look for a lesser demanding requirement in the type of aircraft they have. If the Reserves could take over the function of training as the Regular tactical air forces are deployed, they would free a larger portion of the Reserve Forces for combat. We could equip and train the Reserves for the tasks now performed by our combat crew training wings. This would posture the Reserves considerably different than they are today, since they would be in a training rather than in a combat posture. It would also change the character of the equipment that they would have. For example, we might be able to sustain a hard core of modern tactical aircraft that would normally be utilized in our replacement training units. . . .

"Regardless of what the future may hold, we must have force and balance ready to meet the demands placed upon us. I am sure the Reserves will continue to dedicate themselves to this ever-changing task."

## Air National Guard

*Maj. Gen. I. G. Brown, Director of the Air National Guard, was the first speaker on the Response Panel. In his remarks, he stated:*

"I am delighted with the recognition given here today to the Air National Guard. But, as I review the past, it has been very evident that many in responsible positions have not understood or recognized the capabilities and the potential value of the Air National Guard to the defense of this nation.

"I think the past few years have identified our capabilities and, with the new interest generated, we are going to get on with the job of utilizing, strengthening, and expanding the Air National Guard.

"I am delighted to hear General Stoney clearly point the way to improvement through the maximum utilization of the Air National Guard forces in his mission area and a continuous, productive training and partnership with worldwide active forces.

"This is training at minimum cost on current Air Force equipment and with maximum savings.

"It is the intention of all our policy-makers to modernize and strengthen the Air National Guard and more fully utilize the productivity effort so that we can generate at a tremendous savings in both money and in full-time personnel. . . .

"We must accept a substantial budget cut in Fiscal Year 1971 with follow-on reductions in the flying hours and man-days.

"I am positive that our past professional performance has instilled confidence in many of our active-force leaders, that the Guard is capable, responsible,

flexible, completely professional, and is a tremendously cost-effective organization. And such worldwide projects in recent years as General Momyer referred to as Creek Party, Freelock, Fast Race, Palace Alert, and various other saving missions, both flying and nonflying, have proved that our capability to respond to any mission that is requested of us can be counted on.

"We not only have saved millions of dollars, we have increased our operational capability by performing these live missions.

"As we move in to more sophisticated weapon systems, our potential uses have increased greatly. We can adapt to new aircraft and new systems and new roles and missions, but it will be difficult to operate these costlier systems and maintain an immediate responsive posture and provide effective missions on a decreasing budget or even a level budget.

"We are convinced in the National Guard Bureau that Secretary Laird intended that these necessary resources be made available."

## Air Force Reserve

*Brig. Gen. Donald J. Campbell, representing the Chief of Air Force Reserve, followed, stating:*

"There is no question in our minds in the Office of Air Force Reserve that there is a need for a trained, equipped, and manned Air Force Reserve that is greater than ever and will continue to increase in the future as long as the threat remains.

"The pronouncement made by Secretary Laird merely puts into context what we have been saying for quite a while. With the cutback in defense spending and the reduction of the active forces, where else can we go to assure the level of national security essential except to the Reserve Forces?

"What we have accomplished in the past is history. What we can learn from history is, whenever you call upon the Reserve Forces, they have responded in a professional manner. This includes not only during mobilizations, but in response to domestic emergencies, as pointed out by General Momyer. And the participation in the active-force mission is a part of our training.

"As the active force phases down, there will be many talented individuals available for participation in the Reserve program. These individuals will represent a resource that has been trained by the Air Force, and which has a definite capability which we can put into use in the Reserve roles with considerable ease and reduction of expense by bringing to the Reserve an expertise developed through the years of their active service. This is a resource which could prove to be of inestimable value to our nation, provided we have a Ready Reserve to absorb them and their abilities.

"Obviously, we will not be prepared to absorb and satisfy this resource without missions, equipment, and modernized programs. . . .

"There is another resource which can be of importance, which has not received the impetus it deserves, and that is our individual mobilization-augmentee program. Individual Air Reservists can be an asset in any command, in any program within the command, if they are carefully selected and put to work. . . .

*(Continued on following page)*

The Chairman of AFA's Air National Guard Council, Maj. Gen. Benjamin J. Webster, feels that "... most of us in the Guard will hold to the hope that we will continue with combat units. . . . We must reduce parochialism and be objective as we look ahead."



Anchorman on the Response Panel was Maj. Gen. R. E. L. Eaton, Chairman of AFA's Air Reserve Council. He again stressed the fact that the Guard and Reserve must have adequate manning, equipment, and training if they are to be the primary source for emergency augmentation.

"The Air Force Reserve is ready to respond to any active-force need and to satisfy the defense posture of our nation. Just call on us."

### Uses of the Air Guard

*Maj. Gen. Benjamin J. Webster, Chairman of AFA's Air National Guard Council, also made brief remarks:*

"I was pleased to hear from these Commanders this afternoon. General Momyer's idea of having to use the Guard largely in a training role is interesting, but I think most of us in the Guard will hold to the hope that we will continue with combat units, and we hope that modernization will improve.

"We are told that we are in for a period of Regular Force reductions and greater reliance on the Reserve Forces. This means difficulty—not that reductions and change have not always been difficult. . . .

"We are still given tremendous resources by the American taxpayer. We naturally tend to be somewhat parochial in our view as to the best way to proceed when changes must be made. I believe that we must reduce parochialism and be objective as we look ahead.

"I believe the Air National Guard can and will contribute more, given the resources to do so."

### The Role of AFA

*Maj. Gen. R. E. L. Eaton, Chairman of AFA's Air Reserve Council, was the anchorman of the Response Panel, and concluded by saying:*

"I think a lot of people wonder at the great interest

that the Air Force Association has in the Air National Guard and Air Force Reserve.

"The Air Force Association is interested in all the activities of the Air Force and carries to a considerable length all facets of the Air Force activity in our investigations and our efforts to support the activities of the Air Force, and a very important one is the Air National Guard and Air Force Reserve.

"It seems to me that Secretary Laird's memorandum has not been placed quite in focus. We are engaged in fighting a long and disastrous war on the other side of the world. This war is a strange one, and we approached it in a strange way—a commitment of minimum resources, a business-as-usual approach, only response to what the enemy might offer, and suddenly we realize we have a half-million men over there.

"In our Air and Navy, we are denied a decisive role. We were limited to the isolation of the battlefield by adhering to careful geographic limits, and to battlefield support. Even the Army was denied a strategic role in that it could not attack the enemy sanctuaries and bases and built-up areas just a few miles away.

"We built great electronic systems so that we could count the enemy coming down into the sanctuaries, so that we could brace ourselves for the attack that was to come.

"All of these things are hard to take because it denies the philosophy to win.

"One of the things that has been different about this [SEA] war is that the Air National Guard and the Air Force Reserve were not mobilized to participate in it. The buildup in manpower was by means of the draft. This was because they started out with just a little bit and kept adding to it. In doing this, more than two million men were drafted. More than half of them were minors. Almost, you might say, the first children's crusade since the thirteenth century.

"Our first change in our approach to the war of the future is going to be that the Guard and Reserve will be the initial and primary source for augmentation of the active forces in any future emergency. I think that is a drastic approach and it is a vitally important one. It constitutes a challenge to you, the Air Force Reserve, and the Air National Guard. . . .

"There is one final and important aspect of this that must not be forgotten and that is that the units must be adequately manned, they must be adequately equipped, and they must be adequately trained. If we can avoid the parochialism that might deny the resources that would make the units what they should be, we can promise that the Reserve components will do their job."

*Following all presentations, the seminar was open for questions and answers. The audience learned that ADC had submitted a new proposal for the individual-augmentee program; that further study by key Air Force elements would be made with the view to expanding the Associate Unit program; that much must be done to be prepared for a possible all-volunteer force; that more active-force advisers would be added to the Air National Guard and Air Force Reserve; and that the Department of Defense is seriously looking into the possibility of permitting earlier retirement on a reduced annuity basis for members of the Air National Guard and Air Reserve components.—END*

At a time of tense challenge on both domestic and international scenes, the Air Force Association's twenty-fourth National Convention met in Washington, D.C., to reassert AFA's conviction that US strength must be maintained in a world that continues to be threatened by aggression. At their Convention, the AFA delegates found themselves . . .

# Facing the Multiple Challenges of the '70s

By Don Steele

AIR FORCE MAGAZINE EDITOR FOR AFA AFFAIRS

**A**T A TIME when our country is faced with a double threat of vast proportions—a corrosive national mood and, simultaneously, a substantial acceleration in the Soviet deployment and development of sophisticated new weapon systems—AFA's leaders and delegates gathered in the Nation's Capital for AFA's twenty-fourth National Convention.

Since the last National Convention in Houston, Tex., some eighteen months ago, AFA's membership has grown to more than 105,000. However, the problems of that time are still with us—the war in Vietnam, the MIA/POW situation, and domestic unrest. And, while the annual Statement of Policy adopted by the delegates to AFA's twenty-fourth Convention recognizes the urgency of improving the quality of life in our country, its main emphasis is placed on the explosive growth, and the purpose, of the military power presently arrayed against us by the Soviets (*see page 8 for the full text*).

At the Convention's Opening Ceremonies, the Hon. Daniel Z. Henkin, Assistant Secretary of Defense for Public Affairs, delivered the keynote address. In his statement, Secretary Henkin said: "I bring you [Defense Secretary Melvin Laird's] greetings, best wishes, and deep appreciation for your unfaltering concern about vital issues which affect our national defense—most especially your devotion to the morale and welfare and the dignity of military men and their families.

"As one," he continued, "who has had the opportunity from the beginning of your organization to cover your meetings as a newsman or to participate in them in another capacity, I am proud to stand here with you today, with so many long-time friends, to be counted among those who take and maintain unequivocal positions on two inseparable aspects of our national strength—the need for a strong defense posture, and the need for a strong and free press."

*(Continued on following page)*

National President George D. Hardy (at rostrum) called the Convention Business Session to order to debate AFA policy and elect national officers for 1970-71. Present were delegates from thirty-four states and the District of Columbia.



The Convention keynote, the Hon. Daniel Z. Henkin, Assistant Secretary of Defense for Public Affairs, expressed appreciation to AFA Convention delegates for "unfaltering concern about the vital issues which affect our national defense."



During the program, sixty individuals and/or units were recognized for their efforts in behalf of the Association's mission and membership objectives (see complete list on pages 118 and 119).

In recognition of his dedicated efforts and inspiring leadership as Vice President for AFA's Southeast Region, Lester C. Curl of Melbourne Beach, Fla., received the President's Trophy designating him "AFA's Man of the Year."

For an unparalleled record of accomplishment during 1969 and early 1970, the President's Trophy to "AFA's Unit of the Year" went to the Georgia State Organization and was accepted by William H. Kelly, Georgia AFA President. Its achievements included: leading the nation in membership growth; chartering four new Chapters; conducting one of the most dynamic and impressive efforts conducted by any organization on behalf of the US MIA/POWs; effectively supporting the AFJROTC program; conducting an effective public-speaking program reaching service clubs, church groups, and fraternal groups on a variety of aerospace subjects; and establishing an awards program recognizing outstanding Air Force military and civilian personnel on a recurring annual basis.

### Opening Ceremonies

AFA President George D. Hardy, who presided at the Opening Ceremonies, said, "Over the next four days we will analyze and evaluate the momentum of the Soviet strategic and technological thrust. We will look at these increases of Soviet strategic offensive capabilities in the light of our own lagging efforts."

"And," he continued, "after we have analyzed these findings, we will recommend to our leaders in government and the Congress specific actions which can reverse these trends, and which can assure world peace throughout this decade and beyond."

Headtable guests included Maj. Gen. Nils O. Ohman, Commander of Headquarters Command; AFA National Treasurer Jack B. Gross; and Chaplain (Col.) Freddie W. Carlock, Headquarters Command Chaplain, who delivered the invocation.

The USAF Honor Guard from Headquarters Command, at Bolling AFB, posted the colors, and the USAF Ceremonial Band, Bolling AFB, provided musical selections before the program and for posting of the colors.

A USAF Memorial Service honoring US Air Force dead was held just before the Opening Ceremonies. Participants included: Chaplain (Brig. Gen.) John F. Albert, Deputy Chief of Chaplains; and Chaplains (Col.) Simon H. Scott, Jr., Bolling AFB, and (Lt. Col.) Robert M. Moore and (Maj.) Simeon Kobrintz, both from Hq. USAF. The "Skylarks," a choral group from the Bolling Officers' Wives Club, directed by Capt. Robert B. Kuzminski, USAF Band, provided musical selections.

That afternoon, official delegates from thirty-four states and the District of Columbia assembled for the Business Session of the Convention. In addition to approving the annual Statement of Policy, the delegates adopted ten policy resolutions (see page 102), one resolution that included twenty-two continuing resolutions, nine resolutions dealing with military and civilian personnel matters, and twelve resolutions amending AFA's National Constitution.

### Military and Civilian Personnel Resolutions

Resolutions dealing with military and civilian personnel matters urged that:

- In all future examinations of the military pay structure, due consideration be given to appropriate financial incentives designed to make military service more attractive to and more equitable for married men in the lower three enlisted grades.

- Congress enact legislation to provide that any Reservist or Guardsman who was mobilized for the Berlin, Cuban and Pueblo crises and the Vietnam War may include up to six months full-time initial active-duty training in the determination of his eligibility for educational benefits.

- Legislatures of the several states enact legislation which would afford a transient military student at a state college or university the same rights, privileges, and financial advantages as bona fide residents of the state concerned. The same resolution also urged the governors of the several states to support such legislation individually and through the National Conference of Governors.

- Congress enact legislation to provide Reservists



Les Curl (left), "AFA's Man of the Year," and Bill Kelly (right), President of "AFA's Unit of the Year," the Georgia State Organization, are congratulated by Mr. Hardy for having received top "family" awards for 1970.



**Will H. Bergstrom, Vice President for AFA's Far West Region, was Chairman of the Credentials Committee. Other members were National Director A. Paul Fonda, of Washington, D.C., and Clair G. Whitney, Vice President for the Northwest Region.**

who are performing inactive-duty training or full-time training or duty, or active duty for thirty days or less, substantially the same medical benefits as are now provided for members who are ordered to active duty for periods of more than thirty days, and to the same benefits as they would receive if injuries were incurred during a scheduled period of training or duty.

- The Secretary of the Air Force explore the possibility of charging the Air Reserve Forces with the mission of providing a training capability for the Reserve Undergraduate Pilot Training requirements in such a way as to be able to expand the pilot production capability of the active force in the event of an emergency requiring a larger active UPT program.

- Congress enact legislation authorizing the rank of lieutenant general for the existing positions of Chief of the National Guard Bureau and Chief of Air Force Reserve.

- Air Force ROTC graduates not needed by the active Air Force be made available to man junior officer spaces in units of the Air National Guard and Air Force Reserve, and that the remainder be assigned to the Individual Mobilization Augmentee Program.

- AFA recommend to the Secretary of the Air Force that increased emphasis be given to orientation and training of all supervisory personnel in union/



**The "Skylarks," a choral group from the Bolling AFB Officers' Wives Club and directed by Capt. Robert B. Kuzminski from the USAF Band, provided musical selections at the Memorial Service honoring Air Force dead.**

management relations, with a goal toward providing such training at every Air Force installation throughout the world, and to all supervisors, both military and civilian, within eighteen months or other specified time period, and a routine course of this nature then be provided on a regular basis to all new supervisory personnel.

- Chapter 83, Title 5, United States Code, be amended to permit employees of any federal agency who have twenty-five years service or are fifty years old and have twenty years service to voluntarily retire on a reduced-annuity basis.

### **Constitutional Resolutions**

The twelve resolutions adopted to amend AFA's National Constitution provide that:

- Junior ROTC Cadets be included as eligible for Cadet membership.

- Puerto Rico and the Virgin Islands be included in the Southeast Region.

- The title of the "Regional Vice Presidents" be changed to "Vice Presidents."

- Before an organization above Chapter level can be chartered, two or more Chapters must be chartered within a particular State, Territory, or Foreign Country.

- Each Chapter shall have a President, at least one Vice President, a Secretary, Treasurer, Chapter Council, and such subordinate Officers as the Chapter shall determine.

- Membership dues be increased as follows: Active, Service, and Associate Members \$10 annually (\$21 for three years); Cadet Members \$5 annually; and Life Members \$200.

- A State Organization or Chapter must have been chartered at least thirty (30) days prior to the official opening of the National Convention at which it expects to vote.

- Time served as a Vice President will be included in the cumulative service required to become a permanent member of AFA's Board of Directors.

- The Board of Directors shall have the power to discipline a State Organization.

- A State President's designee to the Nominating Committee shall reside in the State he is representing, and each member of the Nominating Committee shall be entitled to one (1) vote only.

- A quorum of the Nominating Committee shall consist of one-third (1/3) of its membership.

- The Nominating Committee shall select one (1) nominee each for the offices of President, Secretary, and Treasurer of the Association.

### **Continuing Resolutions**

The delegates renewed the following continuing resolutions of the Association:

- An increase in military housing;

- That military pay be at least comparable to Civil Service;

- Continuing support of the Air Force Village;

- Recomputation of retired pay based on active-duty pay scales;

*(Continued on following page)*

- Legislation to equalize military and Civil Service movement allowances;
- A dental care program for military dependents;
- A complete combat-zone tax exemption for military and Civil Service personnel;
- Authorize enlisted retirees to credit nonactive-duty Reserve time for retirement purposes in the same manner that such service has been counted by officers since June 1, 1958;
- Amend the Retired Serviceman's Family Protection Plan so as to bring the program into closer alignment with the provisions of the Civil Service retirement plan;
- Repeal those provisions of the Dual Compensation Act that restrict Department of Defense agencies in hiring qualified retired military personnel during the first six months following their retirement; and eliminate the gross inequity that exists in the treatment of retired Regular officers employed in the federal Civil Service;
- Enact legislation that will provide incentives to attract pilots to remain in the armed forces beyond their initial periods of obligated service;
- Provide funds to (a) permit the advancement of many deserving and qualified airmen who are occupying jobs calling for higher grades, (b) permit the payment of proficiency pay to airmen in all critical skill areas, and (c) permit payment of greater reenlistment bonuses to personnel possessing technical skills vital to the Air Force mission;
- Reenlistment pay and proficiency pay for members of the Reserve components;
- Lift restrictions on recruiting nonprior-service physicians for Reserve units;
- Provide equality of treatment for married female members of the military and Civil Service in the area of survivor's benefits;

- Provide equality of treatment to both male and female members in the application of dependency criteria for spouse and children;
- Permit early Reserve retirement on a reduced annuity basis;
- Provide that all federal pay received by members of the armed forces in a missing or captured status be exempted from the payment of federal income taxes;
- An Armed Forces Medical Academy be established;
- Provide an accelerated promotion program for Reserve medical officers comparable to that in effect for the active forces;
- Authorize the heads of agencies to (a) initiate retirement action for all eligible employees, and (b) reassign, with his consent, an employee eligible for retirement to a less demanding, lower grade position without any resultant salary differential;
- To continue to support the Air Force Museum national fund drive.

### Hardy Reelected President

Delegates unanimously reelected incumbent President George D. Hardy of Hyattsville, Md. Mr. Hardy is President of the Harry B. Cook Co., a food brokerage firm with offices in Washington, D.C., Baltimore, Md., and Richmond and Norfolk, Va. A charter member of AFA, he has served AFA faithfully and with dedication for more than twenty-two years, during which he has earned every award AFA can bestow for which he was eligible. He has occupied almost every elective AFA office—State President, Vice President, National Secretary, National Director, and Chairman of the Board.

Two other incumbent National Officers—Board

**Maj. Melvin A. Bailey (right)** was one of two USAF members awarded an AFA Presidential Citation by Mr. Hardy for support of the national association and its units. **Maj. Gen. A. J. Beck, Commander of Warner Robins Air Materiel Area, Ga.,** was recognized for his support of AFA units in Georgia. **Major Bailey, assigned to Hq. USAF,** was recognized for his efforts in behalf of national programs and meetings.



Chairman Jess Larson and Treasurer Jack B. Gross—were unanimously reelected.

Mr. Larson, a retired Air Force Reserve major general and a prominent District of Columbia attorney with an enviable record of high government service, served the Association as National President for thirty months, prior to being elected Chairman of the Board in 1967 at the San Francisco Convention. He now begins an unprecedented fourth term as AFA's Chairman of the Board.

Mr. Gross, a prominent Harrisburg, Pa., businessman and civic leader, is a former Chairman of the Board and has served nine previous terms as National Treasurer.

For National Secretary, delegates unanimously elected Nathan H. Mazer of Roy, Utah. Mr. Mazer, a retired colonel of the USAF, is Executive Director of the Weber County (Utah) Industrial Development Bureau. He is a former AFA National Director, former Vice President, and a former Chairman of AFA's Organizational Advisory Council.

Six new Vice Presidents were elected to head AFA activities in as many Regions, joining six others who were reelected. The new Vice Presidents are: B. L. Cockrell, San Antonio, Tex. (Southwest Region); William D. Flaskamp, Minneapolis, Minn. (North Central Region); Stanley Mayer, Omaha, Neb. (Midwest Region);  
*(Continued on following page)*

## AIR FORCE ASSOCIATION'S NEW LEADERS FOR 1970-71

### SECRETARY

Nathan H. Mazer  
Roy, Utah

### PRESIDENT

\* George D. Hardy  
Hyattsville, Md.

### TREASURER

\* Jack B. Gross  
Harrisburg, Pa.

### VICE PRESIDENTS

#### Far West Region

\* Will H. Bergstrom  
Colusa, Calif.

#### Northeast Region

\* John G. Brosky  
Pittsburgh, Pa.

#### Southwest Region

B. L. Cockrell  
San Antonio, Tex.

#### Southeast Region

\* Lester C. Curl  
Melbourne Beach, Fla.

#### North Central Region

Wm. D. Flaskamp  
Minneapolis, Minn.

#### South Central Region

H. John McGaffigan  
Shreveport, Louisiana

#### Midwest Region

Stanley Mayer  
Omaha, Neb.

#### New England Region

\* Edward T. Nedder  
Hyde Park, Mass.

#### Rocky Mountain Region

Jack Price  
Clearfield, Utah

#### Central East Region

David M. Spangler  
Danville, Va.

#### Northwest Region

\* Clair G. Whitney  
Bellevue, Wash.

#### Great Lakes Region

\* W. M. Whitney, Jr.  
Detroit, Mich.

### NATIONAL DIRECTORS

\* Chairman of the Board—Jess Larson, Washington, D.C.

\*\* John R. Alison  
Beverly Hills, Calif.

\* Joseph E. Assaf  
Hyde Park, Mass.

\* William R. Berkeley  
Redlands, Calif.

\* Milton Caniff  
Palm Springs, Calif.

\* M. Lee Cordell  
Berwyn, Ill.

\*\* Edward P. Curtis  
Rochester, N. Y.

\* S. Parks Deming  
Colorado Springs, Colo.

\*\* James H. Doolittle  
Los Angeles, Calif.

\*\* A. Paul Fonda  
Washington, D.C.

\*\* Joe Foss  
Scottsdale, Ariz.

\* Paul W. Gaillard  
Omaha, Neb.

Rev. Henry J. McAnulty, C.S.Sp. (ex-officio)  
National Chaplain, AFA  
Pittsburgh, Pa.

Phillip Robinson (ex-officio)  
National Commander, Arnold Air Society  
Seattle, Wash.

Jack T. Gilstrap  
Huntsville, Ala.

\* Martin H. Harris  
Winter Park, Fla.

\*\* John P. Henebry  
Kenilworth, Ill.

\*\* Joseph L. Hodges  
South Boston, Va.

\*\* Robert S. Johnson  
Woodbury, N. Y.

Sam E. Keith, Jr.  
Fort Worth, Tex.

\*\* Arthur F. Kelly  
Los Angeles, Calif.

\*\* George C. Kenney  
New York, N. Y.

\* Maxwell A. Kriendler  
New York, N. Y.

\*\* Thomas G. Lanphier, Jr.  
La Jolla, Calif.

Robert Lawson  
Los Angeles, Calif.

\*\* Curtis E. LeMay  
Newport Beach, Calif.

\*\* Carl J. Long  
Pittsburgh, Pa.

\*\* Howard T. Markey  
Chicago, Ill.

\*\* J. P. McConnell  
Washington, D.C.

\*\* J. B. Montgomery  
Tulsa, Okla.

\* Warren B. Murphy  
Boise, Idaho

\* Martin M. Ostrow  
Beverly Hills, Calif.

Dick Palen  
Edina, Minn.

\*\* Julian B. Rosenthal  
New York, N. Y.

\*\* Peter J. Schenk  
Arlington, Va.

\* Joe L. Shosid  
Fort Worth, Tex.

\*\* Robert W. Smart  
Washington, D.C.

\*\* C. R. Smith  
Washington, D.C.

\*\* Carl A. Spaatz  
Chevy Chase, Md.

\*\* William W. Spruance  
Wilmington, Del.

\*\* Thos. F. Stack  
San Francisco, Calif.

Hugh W. Stewart  
Tucson, Ariz.

\*\* Arthur C. Storz  
Omaha, Neb.

\*\* Harold C. Stuart  
Tulsa, Okla.

\*\* James M. Trail  
Boise, Idaho

\*\* Nathan F. Twining  
Hilton Head Island, S. C.

\* Jack Withers  
Kettering, Ohio

James Wright  
Williamsville, N. Y.

\* Incumbent

\*\* Permanent National Dir.

## AFA UNITS AND INDIVIDUALS HONORED AT THE CONVENTION

### AFA PRESIDENT'S TROPHY

To **Lester C. Curl**, Vice President for AFA's Southeast Region, designated "AFA Man of the Year."  
To the **Georgia State Organization, William Kelly**, President, designated "AFA Unit of the Year."

### AFA PRESIDENTIAL CITATIONS

**Maj. Melvin Bailey**, Washington, D.C.  
**Maj. Gen. A. J. Beck**, Robins AFB, Ga.  
**Jack T. Gilstrap**, Huntsville, Ala.  
**Joe Higgins**, North Hollywood, Calif.  
**Foreign Liaison Division**, Office of the Vice Chief of Staff, Hq. USAF  
**Billy Mitchell Chapter**, Wis.  
**Richmond Chapter**, Va.  
**Santa Monica Chapter**, Calif.  
**Tucson Chapter**, Ariz.

### AFA UNIT EXCEPTIONAL SERVICE PLAQUES

Aerospace Education Award: **Tennessee Valley Chapter**, Ala.  
Best Single Program Award: **Utah State Organization**, Utah.  
Community Relations Award: **Middle Georgia Chapter**, Ga.  
Unit Programming Award: **San Bernardino Area Chapter**, Calif.

### AFA INDIVIDUAL EXCEPTIONAL SERVICE PLAQUES

**Will H. Bergstrom**, Colusa, Calif.  
**Cecil Brendle**, Montgomery, Ala.  
**B. L. Cockrell**, San Antonio, Tex.  
**A. Paul Fonda**, Washington, D.C.  
**James Grazioso**, W. New York, N. J.  
**Sam E. Keith, Jr.**, Fort Worth, Tex.  
**William Kelly**, Savannah, Ga.  
**Robert Lawson**, Los Angeles, Calif.  
**Nolan W. Manfull**, Roy, Utah  
**Edward Nedder**, Hyde Park, Mass.  
**Jack Price**, Clearfield, Utah  
**Margaret A. Reed**, Seattle, Wash.  
**Clyde Stricker**, Spokane, Wash.  
**Herbert West**, Shalimar, Fla.

### AFA MEDALS OF MERIT

**Peter Augustus, III**, North Dartmouth, Mass.  
**S. Samuel Boghosian**, Fresno, Calif.  
**Noel A. Bullock**, Littleton, Colo.  
**Dr. Dan Callahan**, Warner Robins, Ga.  
**Harry Cleveland**, Ogden, Utah  
**Margaret M. Foster**, Anaheim, Calif.  
**Gerald Frewer**, Cape Canaveral, Fla.  
**Paul Gaillard**, Omaha, Neb.  
**Darlene Galbraith**, Kaysville, Utah  
**John Haire**, Huntsville, Ala.  
**Alexander E. Harris**, Little Rock, Ark.  
**Robert Hunter**, Springfield, Ohio  
**Glen Jensen**, Salt Lake City, Utah  
**Robert Maltby**, Kettering, Ohio  
**A. D. McCall, Jr.**, San Antonio, Tex.  
**Maj. Gen. Frederic Miller**, Cocoa Beach, Fla.  
**J. Gilbert Nettleton, Jr.**, New York, N. Y.  
**Dick Palen**, Edina, Minn.  
**Gilbert E. Petrina**, Harrisburg, Pa.  
**William C. Rapp**, Tonawanda, N. Y.  
**V. Michael Rexroad**, Washington, D. C.  
**Dr. Robert H. Saber**, Orlando, Fla.  
**Robert J. Schissell**, Washington, D.C.  
**Norman L. Scott**, Birmingham, Mich.  
**Thomas W. Shoop**, Colorado Springs, Colo.  
**Edward A. Stearn**, Redlands, Calif.  
**Hugh W. Stewart**, Tucson, Ariz.  
**Lynn S. Summers**, Roy, Utah  
**John F. White**, East Boston, Mass.  
**Clair G. Whitney**, Bellevue, Wash.

Region); **H. John McGaffigan**, Shreveport, La. (South Central Region); **David Spangler**, Danville, Va. (Central East Region); and **Jack Price**, Clearfield, Utah (Rocky Mountain Region).

### Six New Directors

Six new Directors were elected to the Board. They are: **Jack T. Gilstrap**, Huntsville, Ala., former Vice President for the South Central Region; **Sam E. Keith, Jr.**, Fort Worth, Tex., former Vice President for the Southwest Region; **Robert Lawson**, Los Angeles, Calif., a Past President of the California AFA; **Dick Palen**, Edina, Minn., former Vice President for the North Central Region; **Hugh W. Stewart**, Tucson, Ariz., current President of the Arizona AFA; and **James W. Wright**, Williamsville, N.Y., a former Vice President for the Northeast Region.

The six newly elected Directors join twelve incumbent Directors who were reelected for another year, as well as all the Past National Presidents and Board Chairmen, other permanent Directors, National Officers, the National Chaplain, and the National Commander of the Arnold Air Society, to form a Board of sixty-three. The full Board membership appears in the box on page 117 as well as in "This Is AFA," page 123.

For the fifth consecutive National Convention, Judge **John Brosky**, Pittsburgh, Pa., Vice President for AFA's Northeast Region, served as a most capable Parliamentarian. The Credentials Committee was comprised of **Will H. Bergstrom**, Chairman, Colusa, Calif., Vice President for AFA's Far West Region; **A. Paul Fonda**, Washington, D.C., former Vice President for the Central East Region and now a permanent member of the Board of Directors; and **Clair G. Whitney**, Bellevue, Wash., Vice President for the Northwest Region.

Inspectors of Election were: **William H. Kelly**, Chairman, Savannah, Ga., President, Georgia AFA; **Kenneth Banks, Jr.**, Akron, Ohio, Treasurer of the Ohio AFA; and **Cecil G. Brendle**, Montgomery, Ala., Secretary of the Alabama AFA. This very capable trio was assisted in the task of tabulating election votes by **Moni Choo**, Huntsville, Ala., President of the Tennessee Valley Chapter; and **Donald F. Allen**, Warner Robins, Ga., a Middle Georgia Chapter delegate.

### AFA's Deep Gratitude

With deep gratitude, AFA acknowledges the support of the following: General Motors Corp., for



A total of sixty individuals and units were honored at the Opening Ceremonies for their efforts in behalf of the AFA's mission objectives and membership goals.



courtesy cars; the Federal Systems Div. of International Business Machines Corp., for sponsoring the Outstanding Airmen program; Ling-Temco-Vought, Inc., for sponsoring the Press Lounge and for publishing the daily "AFA Profile" newspaper; the Coca-Cola Co., for furnishing Coke throughout the Convention area; and the General Dynamics Corp., Teledyne Ryan, Williams Research Corp., and the North American Rockwell Corp., for cosponsoring the Ladies' Lounge and Ladies' Activities.

We acknowledge the contributions made to our program by personnel of the United States Air Force . . . too many to list here . . . but represented by our Military Host, Maj. Gen. Nils O. Ohman, Jr., Commander, Headquarters Command, Bolling AFB; and by the following Project Officers: Col. William D. Hatcher, Maj. Melvin A. Bailey, Capt. William P. Turk, from Hq. USAF; Brig. Gen. Carlton L. Lee, Commander, 1st Composite Wing, Andrews AFB, Md.; Col. Leo J. Ehmann, Vice Base Commander, Andrews AFB; Col. Glen L. McSparran, Communications Project Officer, Andrews AFB; Lt. Col. R. E. Coates, Operations Project Officer, Andrews AFB; Maj. George P. Sook, Transportation Project Officer, Bolling AFB; SMSgt. Andrew L. Davis, Maintenance Project Officer, Andrews AFB; and TSgt. Malcolm O. Haynes, Honor Guard Project Officer, Bolling AFB.

To each of these—and to many officers and airmen whom they represent—we express our deep and enduring gratitude.

Our appreciation also goes to the AFA leaders and delegates who attended the Convention and to the many AFA leaders in the field, those individuals whose personal contributions of time, effort, and finances, have made AFA the great organization it is today.

### General Ryan's View

In his address (the main part of which appears elsewhere in this issue) at the Convention Luncheon held in his honor, Gen. John D. Ryan, USAF Chief of Staff, paid tribute to AFA, its leaders, and its members. General Ryan said, "I have long been convinced that taking part in an Air Force Association Convention offers two important benefits to the members of the active Air Force. For one thing, it enables us, on occasions like this, to express our thanks for the support and encouragement we have received from the AFA membership. It also enables us to present our views on current issues of national security—a subject that I want to examine with you today. Before moving into this topic, however, I want to say a further word in recognition of the several categories of people at this luncheon who have served in the vanguard of aerospace development.

"High on that list are the elected officials of AFA. Their leadership and the able planning of their staff are reflected in the many constructive activities—the briefings, discussions and exhibits—that are conducted at this Convention and throughout the year. One important example is the effective national campaign mounted by AFA to call worldwide attention to the plight of our prisoners of war and of those who are missing in action.

"In addition, we owe much credit to those members

who have come from the fields of education, industry, and science to participate in these activities. I also take great pleasure in extending my greetings to the large representation here from the Air National Guard and the Air Reserve Forces who are gathered to participate in an important seminar this afternoon. Your readiness to augment the active force is a factor of increasing importance.

"I know that all of the groups mentioned have contributed a great amount of talent, effort, and *enthusiasm* to the advancement of aerospace power. In doing so you have rendered a valuable service both to the Air Force and to the country."—END

## AFA MEMBERSHIP AWARD WINNERS

### REGIONAL AWARDS

REGION	VICE PRESIDENT
Southeast Region	Lester C. Curl

### STATE AWARDS

STATE	PRESIDENT
Alabama	Dr. Boyd Macrory
Florida	Herbert "Bud" West, Jr.
Georgia	William H. Kelly
Utah	Jack C. Price

### CHAPTER AWARDS

CHAPTER	PRESIDENT
Alexandria (La.)	Michael M. Wahlder
Badger State (Wis.)	Richard D. Downing
Beaver Valley (Pa.)	John J. Ross
•• Big Spring (Tex.)	Jeff Brown
Binghamton (N. Y.)	Gerald V. Hasler
Broward County (Fla.)	Albert J. Clark
Cape Canaveral (Fla.)	Frederic H. Miller
Central Florida (Fla.)	Taylor Drysdale
Central Utah (Utah)	Vernon D. Fraughton
Chicago S. W. (Ill.)	Len Luka
• Gen. Clair Chennault (Mich.)	Mrs. Dorothy Whitney
Colin P. Kelly (N. Y.)	Kenneth C. Thayer
Concho (Tex.)	Bob G. Ford
• Duluth (Minn.)	Vernon H. Theyson
• Eglin (Fla.)	Lee R. Terrell
•• Erie (Pa.)	Charles Sharp, Jr.
Garden State (N. J.)	Mrs. Joan Capriglione
Golden Spike (Utah)	Max L. Muir
Hap Arnold (N. Y.)	Frank X. Battersby
Holiday Highland (Fla.)	Frank E. White
• Jack Manch (Va.)	Orland "Jack" Wages
Lansing (Mich.)	James L. Crabb
Magic Valley (Idaho)	Paul F. Carl
Middle Georgia (Ga.)	Dr. Dan Callahan
Midnight Sun (Alaska)	Charles W. Lafferty
Mifflin County (Pa.)	Joseph J. Marrone
Minute Man (Mass.)	John A. Luongo
••• Montgomery (Ala.)	Frank J. Segó
Northwest Evergreen (Wash.)	David A. Tate
Sal Capriglione (N. J.)	Joseph Capriglione
Santa Clara County (Calif.)	E. H. Millson
• Savannah (Ga.)	Rex C. Stone, Jr.
Selma (Ala.)	Jack Sherer
Silver Wings (Colo.)	Mrs. Mary Perkins
Spokane (Wash.)	Clarence A. Miles
Tennessee Valley (Ala.)	John H. Haire
Ute (Utah)	Cecil E. Child
Waco (Tex.)	W. G. Bushell
••• Wasatch (Utah)	Glen L. Jensen

- Award winners for 2 consecutive years
- Award winners for 3 consecutive years
- Award winners for 4 consecutive years



## THE MIDDLE GEORGIA CHAPTER . . .

*cited for consistent and effective programming in support of the AFA mission, most recently exemplified in its MIA/POW Seminar.*

More than 500 Georgians proved they truly are concerned about the plight of **American prisoners of war and men missing** in action in North Vietnam by attending an MIA/POW Seminar sponsored by AFA's **Middle Georgia Chapter**, Warner Robins, Ga.

Chapter President **Dr. Dan Callahan** was Moderator for a panel of speakers closely affiliated with the MIA/POW problem: **Mrs. Sybil Stockdale**, Washington, D.C., then the Chairman of the National League of Families of Prisoners and Missing in Southeast Asia; **Mrs. Thomas Parrott**, Dalton, Ga., local coordinator for the National League of Families of Prisoners and Missing in Southeast Asia; **Louis R. Stockstill**, Washington, D.C., free-lance writer and author of "The Forgotten Americans of the Vietnam War." (That special report on POWs appeared in the October 1969 issue of *AIR FORCE* Magazine. It was inserted in the *Congressional Record* several times, a condensation appeared as the lead article in the No-

vember 1969 issue of *The Reader's Digest*, almost a million reprints have been distributed, and it has been credited with doing more to publicize the plight of American POWs than any other article. Author Lou Stockstill received the Gill Robb Wilson Trophy at AFA's recent National Convention in Washington, D.C., for "the most outstanding contribution in the field of Arts and Letters.")

Other panel members were **Richard G. Capen, Jr.**, Washington, D.C., Special Assistant to the Secretary of Defense for Legislative Affairs; and **Maj. Fred N. Thompson**, Special Assistant for POW Affairs, USAF Personnel Center, Randolph AFB, Tex., who is one of nine US POWs released from North Vietnam.

During his presentation, Major Thompson said, "Hanoi can't hear the silent majority. We've got to speak out and make our feelings known. They [the North Vietnamese] must know that they've got to adhere to the Geneva Convention terms. We must

let the world see the American people do care about these prisoners of war and men missing in action."

During the question-and-answer period that followed the presentations, the panel was bombarded with questions concerning the inhumane treatment of American POWs and how individuals could help to obtain humane treatment and compliance with the Geneva Convention.

Among the honored guests were the **Hon. Carl Vinson**, retired member of Congress, from Milledgeville, Ga., and former Chairman of the House Armed Services Committee; **Maj. Gen. and Mrs. Rollin B. Moore**, Commander, Air Force Reserve; **Mrs. A. J. Beck**, wife of the Warner Robins Air Materiel Area (WRAMA) Commander; **Brig. Gen. and Mrs. Alfred Verhulst**, Vice Commander, Air Force Reserve; **Brig. Gen. and Mrs. Ralph T. Holland**, Vice Commander, WRAMA; State Representative **Sam Nunn** of Houston County; and **Col. and Mrs. Frank W. Metheny**, Commander, Robins AFB.

While in the Warner Robins area, Major Thompson spoke at the WRAMA Commander's Call, to the Macon Exchange Club, at a general meeting of Warner Robins Civic Clubs, and Macon's Civitan Club.

During AFA's twenty-fourth National Convention, the **Middle Georgia Chapter** received the Unit Exceptional Service Plaque as the most outstanding AFA unit in the field of Community Relations. Perhaps the Chapter's slogan, "Every Day in Middle Georgia Is Air Force Appreciation Day," is a factor in the Chapter's outstanding success. In any event, AFA is proud of the Chapter and its leaders, and, in recognition of its efforts on behalf of the MIA/POW program, we are pleased to name the Middle Georgia Chapter AFA's "**Unit of the Month**" for November.

\* \* \*

"Why do we need a strong Air Force? Because it has proved itself as our ace in the hole for deterrence and the capability to negotiate."

**Rep. Jerry L. Pettis** (R-Calif.), speaking at an Air Force Anniversary Luncheon cosponsored by AFA's



Honored guests and principals in the Middle Georgia Chapter's recent seminar on the MIA/POW situation are, from left to right, former Congressman Carl Vinson, Mrs. Thomas Parrott, Maj. Fred N. Thompson, Brig. Gen. Ralph T. Holland, and Chapter President Dr. Dan Callahan (see the accompanying story).



Panelists who discussed the MIA/POW problem at the Middle Georgia Chapter's recent seminar are, from left to right, Mrs. Sybil Stockdale, Richard Capen, Maj. Fred Thompson, Mr. Lou Stockstill, Mrs. Thomas Parrott, and, at lectern, Chapter President Dr. Dan Callahan. Note the Chapter's slogan above stage.

Riverside and San Bernardino Area Chapters, went on: "To continue to uphold our world position," he said, "we must press forward with the intelligent selection and acquisition of new systems."

More than 300, including AFA members, active-duty and retired Air Force personnel, and civic leaders attended the luncheon and heard Mr. Pettis urge full support for AFA's MIA/POW program. "I was delighted to hear," he said, "that both San Bernardino and Riverside Chapters are planning an all-out effort to secure more humane treatment for American servicemen who are being held prisoner by the Democratic Republic of North Vietnam."

Citing past accomplishments at nearby Norton AFB, Mr. Pettis said, "The Minuteman, for example, the largest system ever bought by the Air Force, is on schedule and below costs. This mighty deterrent to foreign aggression is little heard of in the continuing sniping at the Administration and its efforts to provide this country with the greatest protection for the least amount of taxpayers' dollars.

"If America is to stand firm in the decade to come," he said, "it must be prepared with the technology and know-how, and this technology and know-how are not subject to instant invention!"

Before his address, Mr. Pettis presented Dave Stockton, 1970 PGA Champion and native of San Bernardino, with the San Bernardino Area Chapter's "Golfer of the Year" award. Mr. Stockton conducted a golf clinic at Norton AFB and plans other golf clinics in the area for airmen.

A. W. "Gus" Clain, newly elected President of the San Bernardino Area Chapter, remarked briefly on the Chapter's future programs, and Ed Stearn, California AFA Organization Director, urged support of the Chapter's MIA/POW program.

Brig. Gen. Robert W. Tucker, Chief of Staff, Rhode Island Air National Guard, on behalf of AFA's Metropolitan Rhode Island Chapter, recently presented AFA citations to Clarence T. Loven and Arthur R. Jones, both recent retirees from the Rhode Island State Airport Administration staff.

(Continued on following page)



Rep. Jerry L. Pettis (R-Calif.), the guest speaker at an Air Force Anniversary Luncheon, praised AFA San Bernardino Area and Riverdale Chapters for their many MIA/POW efforts.

## How to build a family nest egg with U.S. Savings Bonds.



It takes money to feed a family.

It takes money to clothe a family.

It takes money to house a family.

It takes money to send the kids to school, buy a car, give birthday presents, make insurance payments and pay the doctor.

With all the dues it takes just to make it from one day to the next, how's a man going to find a buck to tuck away? How's he going to sock away enough to make tomorrow a better day? How's a man going to build a family nest egg?

It might be easier than you think. All you have to do is sign up for the Payroll Savings Plan where you work. That way you can have a small amount taken from your paycheck, before you receive it, and invested in U.S. Savings Bonds. Your nest egg grows automatically each and every payday.

And now, U.S. Savings Bonds pay 5% interest when held to maturity of 5 years, 10 months (4% the first year; 5.20% thereafter to maturity). That's the highest rate ever.

Join the Payroll Savings Plan where you work. Before you know it, those small deductions and the new interest rate will have grown into a comfortable kitty, a respectable family nest egg, a better tomorrow.



Bonds are safe. If lost, stolen, or destroyed, we replace them. When needed, they can be cashed at your bank. Tax may be deferred until redemption. And always remember, Bonds are a proud way to save.



**Take stock in America.**  
With higher paying U.S. Savings Bonds.



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CMSgt. John L. Poirier, left, a staff maintenance supervisor for the 5010th Combat Support Group, Eielson AFB, Alaska, receives an Alaska AFA Certificate of appreciation from Gordon Wear, the State's AFA President. Sergeant Poirier was cited for his contributions to the Midnight Sun Chapter during two and one half years at Eielson.



Richard Mossoney, left, President of AFA's Hoyt S. Vandenberg Chapter, Detroit, Mich., accepts a trophy from Maj. Gen. James L. Murray, USAFRes, President of Teledyne CAE. Donated by Teledyne, the trophy is called the "Hoyt S. Vandenberg Achievement Award," and will be presented annually by Michigan AFA to a state resident.

The gentlemen were cited "for their efforts in behalf of the Air National Guard and the future of aviation in Rhode Island."

Chapter President **Matthew Puchalski** said that the citations, the first the Chapter has presented, are a part of the Chapter's objectives in honor-

ing individuals who contribute to the "cause of freedom and to aviation within Rhode Island."


\* \* \*

**IN SYMPATHY . . .** AFA and the New Jersey AFA recently suffered the loss of one of their staunchest and most dedicated leaders. On July 31, 1970, **Thomas B. McGuire, Sr.**, died in Paterson, N.J. Mr. McGuire was the founder and first president of AFA's **Thomas B. McGuire, Jr., Chapter**. He was also the honorary commander of McGuire AFB, and father of **Maj. Thomas B. McGuire, Jr.**, World War II ace and Medal of Honor winner, for whom the Air Force base in New Jersey is named. AFA extends its deepest sympathy to Mr. McGuire's family and friends.

**CONGRATULATIONS . . .** To **Carl J. Long** of Pittsburgh, Pa., a permanent member of AFA's Board of Directors, who recently received the Distinguished Service Award of the Illuminating Engineering Society . . . To **Mr. and Mrs. William H. Whitney, Jr.**, of Detroit, Mich., who recently were reelected to serve on the board of the Oakland County Chapter of the National Association of Accountants. Bill is Vice President for AFA's Great Lakes Region, and Dorothy is President of AFA's Gen. Claire Chennault Chapter.

**COMING EVENTS . . . Wisconsin AFA Convention**, Milwaukee, November 21 . . . **Virginia AFA Convention**, Langley AFB, November 21 . . . **Utah AFA Convention**, Salt Lake City, November 20-21.

—BY DON STEELE



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**WHAT IT DOES . . .** **THE PLUM TREE** is brought to you by world famous **AAMCO Industries, Inc.** with over 500 prospering franchisees. We've proven that success can be made to happen again and again! Customers flock to Plum Tree's prime regional shopping center locations. Then they start looking . . . **BROWSING . . . BUYING** till your annual gross sales mount six figures high!

**WHAT IT CAN DO FOR YOU . . .** **THE PLUM TREE** can earn you a big share of the \$2.5 billion giftware industry. With annual sales as much as \$300,000 and net profits of about 18%. 12 of our stores in operation are doing it right now. Between now and Christmas 17 more will open. Get all the facts today! Minimum cash requirement \$35,000.

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CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

# THIS IS AFA



The Air Force Association is an independent, nonprofit airpower organization with no personal, political, or commercial axes to grind; established January 26, 1946, incorporated February 4, 1946.

## Objectives

The Association provides an organization through which free men may unite to fulfill the responsibilities imposed by the impact of aerospace technology on modern society; to support armed strength adequate to maintain the security and peace of the United States and the free world; to educate themselves and the public at large in the development of adequate aerospace power for the betterment of all mankind; and to help develop friendly relations among free nations, based on respect for the principles of freedom and equal rights for all mankind.

## Membership

**Active Members:** US citizens who support the aims and objectives of the Air Force Association, and who are not on active duty with any branch of the United States armed forces—\$7 per year.

**Service Members** (nonvoting, nonofficeholding): US citizens on extended active duty with any branch of the United States armed forces—\$7 per year.

**Cadet Members** (nonvoting, nonofficeholding): US citizens enrolled as Air Force ROTC Cadets, Civil Air Patrol Cadets, or Cadets of the United States Air Force Academy—\$3.50 per year.

**Associate Members** (nonvoting, nonofficeholding): Non-US citizens who support the aims and objectives of the Air Force Association whose application for membership meets AFA constitutional requirements—\$7 per year.

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## State Contacts

Following each state name, in parentheses, are the names of the localities in which AFA Chapters are located. Information regarding these Chapters, or any place of AFA's activities within the state, may be obtained from the state contact.

**ALABAMA** (Auburn, Birmingham, Huntsville, Mobile, Montgomery, Selma): **Dr. Boyd E. Macroy**, 3721 Princeton Rd., Montgomery, Ala. 36111 (phone 293-6871).

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# Now -- Family

with Air Force Association

## A new plus for Military Personnel from AFA

The Air Force Association and its underwriter, United Benefit Life Insurance Company are pleased and proud to offer new FAMILY PLAN AFA MILITARY GROUP LIFE INSURANCE to active duty personnel of the USAF and members of the Air Force Ready Reserve and Air National Guard.

For only \$2.50 per month, in addition to the low \$10 monthly premium for the insured's basic coverage, the new FAMILY PLAN insures the spouse for 30% of the insured's existing coverage. All children (regardless of number) between the ages of six months and 21 years are covered in the amount of \$2,000 (\$250 between the ages of 15 days—or upon leaving the hospital, if later—and six months). And, in the event of the principal policyholder's death, this family insurance may be converted to a permanent plan of insurance by the member's family

### Big, new benefits for members and their families

Insured's Age	Insured's Basic Coverage*	Coverage for Spouse	Coverage for Each Child
20-39	\$20,000**	\$6,000	\$2,000
40-44	17,500**	5,250	2,000
45-49	13,500**	4,050	2,000
50-59	10,000**	3,000	2,000
60-64	7,500**	2,250	2,000

\*A flat sum of \$15,000 is paid for all deaths which are caused by an aviation accident in which the insured is serving as pilot or crew member of the aircraft involved. In this case, the accidental death benefit does not apply.

\*\*An extra accidental death benefit of \$12,500 is also provided.

### IMPORTANT NOTE FOR CURRENT POLICYHOLDERS

Current AFA Military Group Life Insurance policyholders should not use this application. **A special application form has been mailed to all policyholders.** Current policyholders may also obtain additional application forms by writing directly to AFA's Insurance Division.

### OTHER BENEFITS

#### RETENTION OF COVERAGE AFTER LEAVING ACTIVE DUTY!

Coverage under this policy may be retained at the low, group rate with no change in benefits upon leaving active duty (and until attaining Age 65) provided the coverage has been in force for at least a 12-month period prior to leaving active duty.

- GUARANTEED CONVERSION TO PERMANENT INSURANCE.
- WAIVER OF PREMIUM FOR DISABILITY.
- FULL CHOICE OF SETTLEMENT OPTIONS.

# Coverage

## Military Group Life Insurance

**CONTINUED, UNRESTRICTED COVERAGE**  
**assures your family the best possible protection!**

- OPTIONAL COVERAGE FOR SPOUSE AND CHILDREN
- NO WAR CLAUSE!
- NO HAZARDOUS DUTY RESTRICTION!
- \$12,500 ACCIDENTAL DEATH BENEFIT

There is no war clause, combat-zone waiting period, other hazardous duty restriction or geographical limitation on AFA Military Group Life Insurance coverage. It is AFA's policy to continue to provide the broadest possible protection to all of our member-policyholders.

An additional benefit of \$12,500 is paid for accidental deaths—even those caused by aviation accidents—except when the insured is serving as pilot or crew member of the aircraft involved.

**LOW COVERAGE—AT THE SAME LOW PREMIUM — FOR FLYING AND NON-FLYING PERSONNEL**

Policyholders are insured for the same basic amounts, at the same low premium, whether or not they are on flying status. This eliminates the penalty of lower coverage for the men on flying status whose death is caused (as opposed to those whose death is caused by illness or ordinary accident. There is an exception\* to this provision which is clearly stated in the benefit table on the opposite page.

### EXCLUSIONS — FOR YOUR PROTECTION

In order to provide maximum coverage at minimum cost for participants, there are a few exclusions which apply to coverage. They are:

Benefits for suicide or death from injuries intentionally inflicted while sane or insane shall not be effective until the policy has been in force for twelve months.

Accidental Death Benefit shall not be effective if death

(1) From injuries intentionally self-inflicted while sane or insane, or (2) From injuries sustained while committing a felony, or (3) Either directly or indirectly from mental infirmity or poisoning or asphyxiation from carbon monoxide, or (4) During any period while the policy is in force under the waiver of premium provision of the policy, or (5) From an aviation accident, military or civilian, in which the insured was acting as pilot or crew member of the aircraft involved.

### NOTES ABOUT YOUR POLICY

Policies are dated and take effect on the last day of the month in which your application for coverage is post-dated. Coverage runs concurrently with AFA membership. Military Group Life Insurance is written in conformity with Insurance Regulations of the District of Columbia.

Insurance will be provided under the group insurance policy issued by United Benefit Life Insurance Company to the Air Force Association. However, National Guard and Reserve members who are permanent residents of Ohio, Texas, Florida, and New Jersey, will not be covered under the policy, but will be eligible for individual policies providing somewhat similar benefits.

MAIL YOUR APPLICATION TODAY

MAIL YOUR APPLICATION TODAY

### AFA MILITARY GROUP LIFE INSURANCE WITH OPTIONAL FAMILY PLAN (Underwritten by United of Omaha)

Rank \_\_\_\_\_ Name \_\_\_\_\_ (please print) \_\_\_\_\_ Social Security No. \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Date of Birth \_\_\_\_\_

Beneficiary \_\_\_\_\_ Relationship \_\_\_\_\_

A.  I apply for AFA Military Group Life Insurance with family plan coverage, at a monthly premium of \$12.50. Please send me an additional application form for enrollment of eligible family members.

B.  I apply for AFA Basic Military Group Life Insurance only (does not include family coverage), at a monthly premium of \$10.00.

Please indicate below the form of payment you elect:

	Family Plan	Basic Plan
<input type="checkbox"/> Monthly government allotment. I enclose 2 months' premium (\$25 for Family Plan, \$20 for Basic Plan) to cover the period necessary for my allotment to be established.	<input type="checkbox"/> \$12.50	<input type="checkbox"/> \$10
<input type="checkbox"/> Quarterly, direct to AFA. I enclose amount checked.	<input type="checkbox"/> \$37.50	<input type="checkbox"/> \$30
<input type="checkbox"/> Semi-annually, direct to AFA. I enclose amount checked.	<input type="checkbox"/> \$75	<input type="checkbox"/> \$60
<input type="checkbox"/> Annually, direct to AFA. I enclose amount checked.	<input type="checkbox"/> \$150	<input type="checkbox"/> \$120

Category of eligibility. Please check appropriate box:

- Active Duty, Air Force
- Ready Reserve, Air Force
- Air National Guard

This insurance is available only to AFA members:

- I enclose \$7 for annual AFA membership dues (includes subscription (\$6) to AIR FORCE/SPACE DIGEST.
- I am an AFA member.

I understand the conditions governing AFA's Group Life Insurance Plan. I certify that I am eligible for this insurance under the category indicated, that I am currently in good health, and that I have successfully passed, within the past two year period, the last physical examination required by my branch of service. (Reserve and Guard personnel not on extended active duty must include with this application a copy of their most recently completed SF88.)

Signature of Applicant \_\_\_\_\_ Date \_\_\_\_\_

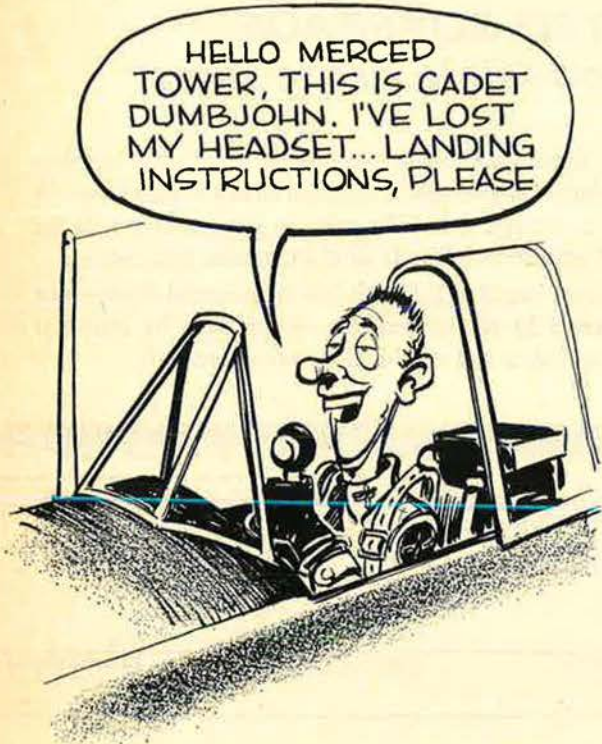
Application must be accompanied by check or money order. Send remittance to: 11-70  
INSURANCE DIVISION, AFA, 1750 PENNSYLVANIA AVE., N.W., WASHINGTON, D.C. 20006

Bob Stevens'

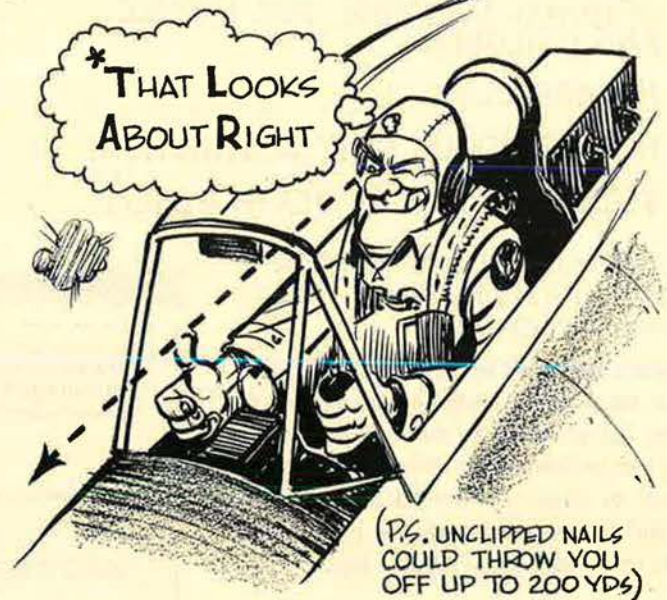
# "There I was..."



It was 1944 and our magnificent men and their flying machines were locked in a gargantuan struggle to restore peace to a world in flames. But even in the midst of the holocaust, it was the minor problems one dealt with every day that kept things interesting.

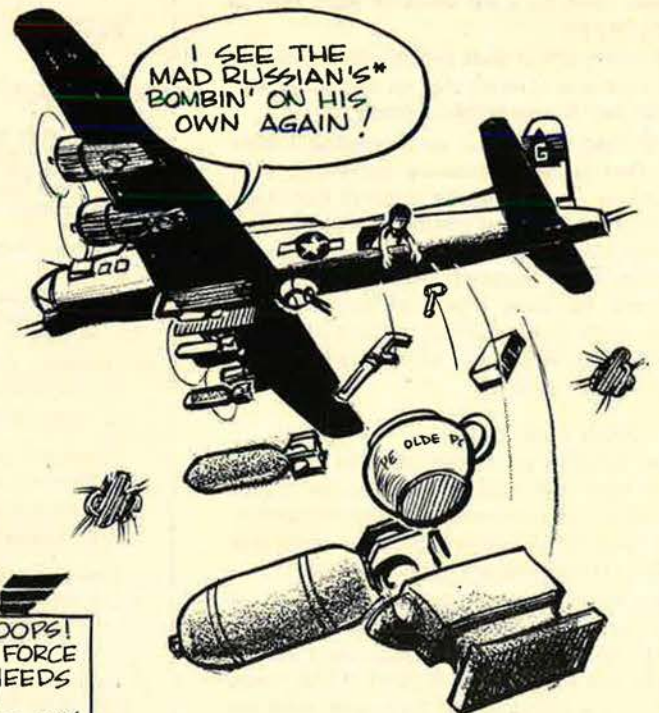


### EVER HEAR OF THE SUPER SECRET TLAR\* BOMBSIGHT IN FIGHTERS?



THANKS TO CAPTS B. HOWARD & J.G. JOHNSON, 15 MAG, NORTON AFB

### REMEMBER THOSE STEEL GI MIRRORS IN THE LATRINES?




**C'MON TROOPS!  
YOUR AIR FORCE  
MUSEUM NEEDS  
YOU!  
DONATE TODAY!**

\* IT WAS TSGT. MICHAEL ROSCOVICH ABOARD 'FESTUNG EUROPA' 8TH A.F. ENGLAND.

Bob Stevens





... 216 B.C. The Carthaginians, under the 26-year-old Hannibal, cross the Alps, conquer Gaul, and destroy the Roman legions at Cannae. But the war drags on. In 205 B.C., Scipio Africanus decides to carry the war to Hannibal in Africa. "A near view of the enemy's advantages and disadvantages makes a great difference," Livy says. "The greatest fear is of the unknown." In 202 B.C., Carthage is wiped off the map...

The unknown, that mysterious "something out there" has always been far more menacing than the fiercest reality.

And man has constantly sought ways to recognize the "enemy's advantages and disadvantages."

It wasn't too long ago that a few pebble-filled beer cans tied to the underbrush was the best system we had for detecting intruders.

Today's electronic security systems are so sophisticated they'll even detect a mongoose creeping in the jungle.

The general principle is simple: if something crosses the electronic barrier, it sends a signal that is analyzed for speed, size, density, direction, etc.

If the equipment decides an intrusion has occurred, it sounds an alarm—all in less than a second!

We were the first to provide these security systems, as far back as 1959. And we've been keeping intruders out of Atlas, Titan and Minuteman missile sites since then.

Now, we're protecting people and equipment in vulnerable areas all over the world.

And our systems are tailor-made to meet specific problems, using geomagnetic, electro-optical, seismic, acoustic, infrared, ultrasonic, and RF detection techniques.

There will always be an unknown out there. But it's nice to know we've got our "eye" on him.

Sylvania Electronic Systems, Sylvan Rd., Waltham, Mass. 02154.

**"The greatest fear  
is of the unknown"**

*Livy, Annals of the Roman People (26 B.C.—A.D. 14)*

**SYLVANIA**  
GENERAL TELEPHONE & ELECTRONICS



## The complete air force: Phantom.

It's an air superiority fighter, an interceptor, a fighter-bomber or a reconnaissance aircraft. □ It carries a complete scale of weaponry and avionics for mastering any tactical situation or weather condition. □ The F-4E, with its 20mm, 6000 rounds-per-minute Gatling nose-gun, adds even greater capability, without sacrificing performance. □ It's the Phantom. The complete air force.

**MCDONNELL DOUGLAS**

