

# Streamlining the Air Arm

**Today's Air Force is smaller, but its people are brighter, better prepared, and go further to do more.**

By The Hon. Verne Orr, Secretary of the Air Force

In the Air Force's quest for excellence, change and challenge have been constant companions. Today, the United States Air Force is the most powerful air arm in the world — a position achieved because its people have been able to meet the challenges created by a constantly changing world. In this article, I would like to review some of the changes in the Air Force that have occurred since its inception more than thirty-five years ago and to examine the challenges many of these changes pose for us today.

## **Composition of the Air Force**

Since its establishment as a separate service following World War II, dramatic changes have occurred in the composition of the Air Force. Our people form the basis for deterrence, and ultimately our national defense, and are the most valuable asset in any branch of the armed services.

In comparison to our past, today's Air Force is composed of fewer though more highly qualified and educated people, representing a broader cross section of the population.

Over the past thirty-five years there has been considerable fluctuation in the number of people in the Air Force. From World War II peak 2,400,000 men and women in 1944, we dropped rapidly over two years to less than 500,000 as a result of the postwar drawdown. However, with growing concern over Communist aggression in Korea, the Air Force once more began adding to its ranks; until, in 1952, we had more than doubled in size to about 973,000. After a slow tapering off, the Vietnam conflict brought our strength to more than 905,000 in 1968. Today, our Air Force has about 583,000 people on active duty — a somewhat smaller but streamlined force of volunteer professionals.

While the number of personnel in the force has decreased, its quality has not. In fact, the education level of our men and women has improved steadily since the early 1950s. In the years following the Air Force's creation, only about fifty percent of the officers had a college education and about the same percentage of the enlisted personnel had earned a high school diploma. In contrast, today we can boast of a more highly educated force.

For example, better than ninety-nine percent of the active-duty officers have a college education; forty-three percent of our officer corps possess the equivalent of a master's degree or higher. Ninety-eight percent of our enlisted personnel have completed high school.

The people picture is bright, but the future presents us with a challenge to sustain the progress that we have made. We must continue to recruit highly educated, self-motivated officers and enlisted personnel; but that will not be easy. On the one hand, there will be a smaller number from which to recruit. More importantly, as I pointed out in January's issue of AIR FORCE Magazine, the growing scientific illiteracy of today's youth will have a significant impact on our efforts.

### **Competing With Industry**

The technological edge that has been the foundation of our strategy — to be able to man and maintain technologically superior weapons to overcome numerically superior soviet forces — is at risk. Today, we are experiencing a shortage of nearly 2,500 military and civilian engineers in the Air Force. To fill this gap, we will have to compete with industry for the talent that will be available.

It is true that our forces are paid better today than ever before. For example, an Air Force captain's base pay has grown twenty-four percent over the last eighteen years in constant 1983 dollars, and a staff sergeant has realized a thirty-three percent increase during this same period after adjusting for inflation. The challenge before us today is to ensure that the pay comparability that was finally achieved in FY '82 will be restored in FY '85.

Another significant change has been the steady expansion of the role and opportunities for women and minority group members in the Air Force.

On June 12, 1948, Congress passed the Women's Armed Service Integration Act, establishing Women in the Air Force (WAF) as a permanent part of the service. At that time, only 300 women officers and 4,000 enlisted women were authorized, representing less than one percent of the force. The number did not rise much beyond this level until after the outbreak of the Korean War.

By contrast, today we have more than 10,000 women officers and 55,000 enlisted women, 11.2 percent of the force. That figure will grow to more than 12,000 officer and 64,000 enlisted women by 1987, or 11.6 percent of the force. Today, the air Force has a larger percentage of women and more women officers than any other service. Since 1976, women have been admitted to the Air Force Academy. The current enrollment of nearly 500 women comprises close to eleven percent of the student body.

Since its creation in 1947, the Air Force has taken the lead among the services in expanding the role of minorities. When President Truman signed Executive Order 9981 on July 26, 1948, official support for black participation in military aviation became national policy. By the early 1950s, each branch of the military had adopted policies of equal treatment for blacks. However, many segregated units still existed.

Pressure to integrate these units began to build in 1951. With increasing numbers of blacks joining the service, the all-black units approached full strength while a number of all-white units remained under strength. The air force played a prominent role in the integration effort. In fact, a Korean War correspondent in a 1950 Baltimore *Afro-American* article said integration could be described in two words: "Air Corps."

Today there are nine black generals in a totally integrated Air Force. This year, Air Force Lt. Col Guion S. Bluford will become the first black American in space.

The Air Force's appreciation for the value of black Americans is indicative of our services' attitude toward all minority groups in our society. Today, for example, more Hispanic Americans are being recruited than ever before and have a higher retention rate than the air Force average.

Another dimension of the change in the composition of today's Air Force is the growing number of two Air force member families. Prior to the 1970s, there were very few active duty couples, in part because pregnant women were normally not permitted to continue their Air Force careers. Since that rule was changed in 1971, the number of air Force couples grew. In 1975, there were 8,500 couples, representing 2.8 percent of the force. Today there are more than 23,000 couples, representing eight percent of the force.

Not only has there been an increase in the number of couples but as couples remain on active duty there has also been an increase in their rank. As the number and rank of joint spouses increases, the difficulty of dual assignments grows. The Air Force will continue to make major efforts to accommodate couples, but obviously no guarantee can be made that we will always be able to find solutions to individual cases.

### **Air Force Mission**

The basic Air Force mission to fly and fight has been expanded; a fact, in part, reflected in the term "aerospace." Today, Air force responsibilities for defense and deterrence cut across the entire spectrum of conflict and are met in a diverse operational environment that includes the atmosphere and suborbital, orbital, and deep space. The current mission of the Air Force is expanding in two specific directions.

First, the Air Force is moving more and more into space. With the end of the test phase of the Shuttle program this past summer; space has become no longer a place to visit. It has become a place to work. The threat that we face results from the fact that space is no longer a benign sanctuary.

Today, we are dependent on space for warning, communications, and command and control of our forces worldwide. The challenge before the Air Force is to ensure that this capability is not lost, and that no nation that would wish us ill will ever be in a position to dominate this medium.

### **New Interservice Accord**

A second area of mission expansion is joint operations. It is, to be sure, not a new one, but recent events only reinforce its increasing importance. One factor that contributed to the British South Atlantic success, in the words of the British on-scene commander, was "the single joint force commander in a joint headquarters location."

Recognizing this lesson, the Air Force has undertaken a number of initiatives to emphasize and enhance joint operations. Our approach is embodied in a Memorandum of Agreement with the Navy to accelerate efforts to defend jointly the sea lines of communications. Our initial efforts will involve sea-lane air defense and increased use of our land ranges for Navy training. But this is only the first step; for we project, in the future, an increase in the scope and frequency of all aspects of joint maritime operations. Similarly, working with the Army on the "Air-Land Battle 2000" concept, we have signed recently a Memorandum of Understanding that highlights the need for joint activities with the service.

## **Air Force Systems**

While there has been an expansion of the Air Force mission, the number of air Force weapon systems over the years has decreased both in quantity and types. Yet, while there has been a decrease in force levels, there has been a significant increase in capability. Technology has enabled us to field air, missile, and space systems that give us the edge in maintaining a viable deterrent in the face of an ever-increasing number of Soviet weapons.

During World War II, aircraft production peaked in March of 1944 with the production of 9,100 aircraft a month, an increase of more than 2,000 percent in four years. Between January 1940 and August 1945, in fact, the Army Air Forces took delivery of more than 230,000 planes. By 1947, however, as a result of the decision to reduce to lower peacetime levels, the inventory had decreased to 10,000 planes. By 1950, the Air Force inventory of active aircraft was down to 8,700. At that time, we had six major types of bombers and five major fighters.

Following the outbreak of the Korean War in June 1950, our inventory grew so that by the end of the decade we had nearly 19,000 aircraft. The year 1954 was significant for it saw the phase-out of all non-jet fighters and the B-29 bomber, and the introduction of development of the B-52, B-57, and B-58 bombers.

Today, our two strategic aircraft (B-52 and FB-111) and six different fighters and attack aircraft (F-4, F-15, F-16, F-111, A-7 and A-10) are part of an overall Air Force inventory of more than 9,000 aircraft. This coming fiscal year we hope to procure 213 new ones, of which 168 will be fighters.

Correspondingly, we have reduced our total flying hours from more than 7,000,000 in 1960 to fewer than 3,000,000 hours in 1982. Likewise, there has been an increase in the number of active Air Force major installations from about 240 in 1960 to 134 in 1982.

These reductions, which have occurred despite our expanded mission and increase global responsibilities, required us to seek innovations and efficiencies. One example of such efficiencies is that our people move less frequently today than they did earlier. Since 1974, we have cut the number of permanent change of station (PCS) moves by more than half, from 640,000 to 310,000. Although the cost per move has tripled over that period, we have drastically reduced PCS outlays as a percentage of the Air Force budget.

## **Air Force Effectiveness**

The extraordinary increase in effectiveness that our modern weapons have attained is highlighted by comparisons between earlier systems and current ones.

- Our newest and smallest fighter — the F-16 — can carry twice the bomb load of the B-17 Flying fortress of World War II fame. Moreover, these modern aircraft are more survivable, far more likely to hit the target, and more maintainable. Modern, “smart” munitions further increase their effectiveness.
- The C-5 can carry more than twenty times as much cargo as the C-47 (DC-3) and transport that cargo twice as far. At the peak of the Berlin Airlift, it took 1,400 flights to deliver 13,000 tons of food and supplies; using C-5s we could have transported the same supplies in 117 flights.

- In the Vietnam War between 1965 and 1968, the Air Force sent 874 aircraft sorties with conventional gravity bombs to attack the Thanh Hoa Bridge — a vital link in the North Vietnamese supply chain to the South. The bridge remained intact and we lost eleven aircraft in the process. By contrast, in 172, using precision-guided weapons, a single flight of eight F-4s, using laser-guided bombs, dropped the bridge without a loss.

It should be noted that while our weapon systems have become more complex, there has been no decrease in reliability or safety. The maintainability features incorporated into current inventory aircraft like the F-15 and F-16 have enabled maintenance functions to be performed in less time, thereby contributing to higher sortie rates than in older aircraft. Similarly, today's aircraft are safer to fly.

The tragic casualties in the early days of aviation were the price paid to bring flight, and experimental concept, to the status of a major means of transportation. As we gained more and more experience in the air, the number of accidents and casualties leveled off and began to decline. Fatal accidents and destroyed aircraft per 100,000 hours flying time were cut by more than half between 1950 and 1960. We reduced them nearly another fifty percent between 1960 and 1982. The flying safety rate for this past year was 2.3 accidents per 100,000 flying hours, the lowest in history.

In the search for excellence, challenge is the inseparable companion of change. It has been said that there are no "permanent" changes since change itself is permanent. One thing is constant, however. The basic factor for dealing successfully with change is the individual who accepts the challenge and gives his or her best to meet it. During the past thirty-five years, our service has undergone many changes. Because of our people, we have been better able to ensure the security of our nation. It is my belief that it will always be this way.

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*Verne Orr was appointed to his post by President Reagan, with whom he served in the California state government and during the Presidential campaign and transition. He served in the navy during World War II, and was discharged from the Naval Reserve in 1951 as a lieutenant commander. He earned a Bachelor of Arts degree from Pomona College and a master's in business administration from the Stanford Graduate School of Business.*