DEPARTMENT OF THE AIR FORCE

JOINT STATEMENT

BY

THE HONORABLE VERNE ORR
SECRETARY OF THE AIR FORCE

AND

GENERAL LEW ALLEN, JR
CHIEF OF STAFF, UNITED STATES AIR FORCE

BEFORE

COMMITTEES AND SUBCOMMITTEES
OF THE
UNITED STATES SENATE
AND THE
HOUSE OF REPRESENTATIVES

SECOND SESSION, 97TH CONGRESS

THE POSTURE OF THE AIR FORCE
AND
BUDGET ESTIMATES FOR FISCAL YEAR 1983

VERNE ORR
SECRETARY OF THE AIR FORCE

Mr. Verne Orr became the Secretary of the Air Force in February 1981.

Mr. Orr was born November 12, 1916, in Des Moines, Iowa. He moved to California with his family and graduated from Pomona (California) College with a bachelor of arts degree in 1937. He earned his master's degree in business administration from the Stanford University Graduate School of Business in 1939.

In April 1942, Mr. Orr was called to active duty as an ensign in the Supply Corps of the United States Naval Reserve. He served in both the American and Pacific theaters of operations and was released from active duty as a lieutenant in November 1945. Secretary Orr was honorably discharged from the Naval Reserve as a lieutenant commander in 1951.

Following his release from active duty, Mr. Orr became a partner in his father's automobile dealership in Pasadena, California. He remained there until 1960, at which time he began a two-year affiliation with a family investment business. From 1963 to 1966, he was president of Investors Savings and Loan in Pasadena.

At the invitation of then-governor Ronald Reagan, Mr. Orr served as California's director of motor vehicles, a position he held until 1969. After serving briefly as the state's director of general services, he began a five-year term as California's director of finance which ended in 1975.

From 1975 to 1980, he taught government finance courses at the University of Southern California Graduate School of Public Administration. In 1977, he established a small real estate partnership with his son. He served as a deputy director of the Reagan for President Committee and deputy director of the Office of the President-Elect during the transition.

Mr. Orr's civic activities include president of the Pasadena Merchants Association, president of the Kiwanis Club of Pasadena, president of the Family Services Association of Pasadena, president of the United Way of Los Angeles County, and foreman of the Los Angeles County Grand Jury.

He has been honored as Phi Beta Kappa, Salvation Army Man of the Year in Pasadena for 1970, and is an honorary member of the Pasadena Chamber of Commerce, Pasadena Kiwanis Club, Pasadena Rotary Club, and Pasadena University Club.

Mr. Orr is married to the former Joan Peak of Des Moines and they have two children: Carolyn and Robert Vernon.

GENERAL LEW ALLEN, JR.
CHIEF OF STAFF OF THE AIR FORCE

General Lew Allen, Jr., is Chief of Staff of the United States Air Force and a member of the Joint Chiefs of Staff. As Chief of Staff, he functions as the senior uniformed Air Force officer responsible for the administration, training and equipping of a combined active duty, Guard, Reserve and civilian force of nearly one million people serving at nearly 3,000 locations in the United States and overseas. As a member of the Joint Chiefs of Staff, he and the other senior chiefs functions as the principal military advisors to the Secretary of Defense, National Security Council and the President.

During more than thirty-five years of Air Force service, General Allen has held a variety of operational, scientific, and management positions. His broad range of experience also includes key command assignments in intelligence and systems acquisition.

General Allen graduated from the United States Military Academy at West Point and received his pilot wings in 1946. He then flew B-29 and B-36 aircraft assigned to the 7th Bombardment Group of Strategic Air Command. He attended the Air Tactical Course and returned to the 7th Bombardment Group as an instructor and Assistant Special Weapons Officer.

Following graduate training in nuclear physics and upon receiving his doctorate in physics from the University of Illinois, General Allen was assigned to the Los Alamos Scientific Laboratory where he conducted experiments in thermonuclear weapons design and the effects of high altitude nuclear detonations. In 1957, he was assigned to Kirtland Air Force Base, New Mexico, where he was a science advisor and the director for major experiments in nuclear weapons development.

In 1961, General Allen was assigned to the Space Technology Office of the Director of Defense Research and Engineering. He then served in the Office of the Secretary of the Air Force as Deputy Director for Advanced Plans, Directorate of Special Projects. He moved to the Pentagon in 1968 as Deputy Director of Space Systems and in June 1969 became Director.

After serving briefly as Chief of Staff for the Air Force Systems Command, General Allen was appointed in 1973 as Deputy to the Director of Central Intelligence for the Intelligence Community. Later in 1973 he became Director, National Security Agency/Chief, Central Security Service at Fort George C. Meade, Maryland. In 1977, he assumed command of the Air Force Systems Command.

General Allen served as the Vice Chief of Staff, United States Air Force, from April 1, 1978, until he became the Chief of Staff on July 1, 1978.

He is a command pilot and wears the Master Missile Badge. His military decorations and awards include the Defense Distinguished Service Medal with oak leaf cluster, the Air Force Distinguished Service Medal, the Legion of Merit with two oak leaf clusters, the Joint Service Commendation Medal, and the National Intelligence Distinguished Service Medal.

General Allen is married to the former Barbara Frink Hatch of Washington, D.C., and they have five children and three grandchildren. His hometown is Gainesville, Texas.

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I. INTRODUCTION

The principal security challenge facing the United States is the threat posed by the continuing growth of Soviet military might. It is the imperative to counter-balance Soviet military capabilities that sets our military requirements and fundamentally sizes and shapes our forces.

The United States has the unique responsibility for maintaining an effective strategic nuclear deterrent and an acceptable balance of central strategic and regional nuclear capabilities with the Soviet Union. To fulfill this key responsibility in the face of the continuing build up of Soviet nuclear capabilities, we must proceed apace with the strengthening of our strategic forces set in motion last fall.

The United States must also provide the leadership to contain Soviet expansionism. We, in conjunction with our allies, must develop and maintain warfighting forces, both conventional and nuclear, of sufficient combat power and readiness to deter Soviet aggression and defend Western interests wherever they may be threatened. To maintain a credible deterrent and defense posture, our collective forces must have the capability to deny the enemy the objectives he seeks at any level of conflict.

It is in Europe that the Soviets present us with our most demanding defense requirements. The bitter lessons of the first half of this century convinced us that our own security is inextricably linked to that of Europe. Consequently, in concert with our allies we must maintain sufficient collective military strength to prevent war from erupting in this area of vital interest to the United States.

In Europe we face, by far, the greatest concentration of Soviet forces. The Warsaw Pact forces arrayed along the German border today enjoy substantial numerical advantages over the forces of the North Atlantic Alliance in numbers of soldiers, tactical aircraft, and tanks. Western Europe has remained free of Russian domination not because Moscow does not wish to extend its hegemony westward, but because the Western Alliance has maintained strong and credible defense capabilities, even though outnumbered.

Soviet doctrine, force structuring, and exercises reveal that in the event of a war in Europe, NATO would be confronted with a massive air and ground blitzkrieg offensive. To help counter this threat the United States must maintain a combination of forward deployed ground, air, and naval units and a sizeable rapid reinforcement capability, backed by theater and intercontinental range nuclear weapons. Airpower plays a particularly critical role in our flexible response strategy. Airpower, because if its long range, speed, and flexibility, allows the most efficient allocation of forward deployed and central reserve forces. With the Soviet-led Warsaw Pact increasingly capable of short-warning attack, such speed and flexibility are essential. To defeat a Soviet offensive, our air forces must, simultaneously, achieve and maintain air superiority, provide offensive air support to allied ground forces, and attack reinforcing formations and other key targets behind enemy lines. At the same time, our mobility forces must be capable of carrying out the largest airlift of men, equipment, and supplies in history.

While we have focused our attention on countering a major Warsaw Pact offensive in Europe, the prospect of Soviet aggression elsewhere — in Southwest Asia, for example, where Soviet control of the energy resources of that region would be devastating to the West — has also had a major influence on our force planning. In any major Soviet offensive, we would expect them to follow similar tactics featuring assaults by massed

armored forces reinforced by succeeding waves and supported by air attacks. Our tasks would, however, be complicated by distance from the United States and the lack of forward deployed US forces as well as an absence of substantial allied forces and limited support facilities. As with defense in Europe, airpower, with its speed and flexibility, provides an essential element of our combined arms deterrent to discourage aggression or coercion in other parts of the world. Our ability to deploy forces rapidly and to disrupt and delay enemy advances via interdiction strikes by long-range aircraft is a critical element of our defense strategy.

It is these demanding requirements that underlie our FY 83 budget request. To provide a capability to counter the relentless growth in Soviet military power, we must develop and maintain air and missile forces that: (1) restore an adequate strategic and theater nuclear balance; (2) deny the Soviets any prospect of victory in a nuclear conflict; (3) can be flexibly employed to fulfill multiple theater warfare missions; (4) possess sufficient range and aerial refueling capability to deploy independent of en route bases if need be; (5) are able to conduct combat operations at night and in adverse weather conditions; (6) can penetrate Soviet defenses and destroy heavily defended targets; and (7) are ready and can fight as long and hard as needed to win.

While there is much to be done to meet the demanding challenges that confront us, we can take pride in the significant progress we have made during the past year in strengthening our defense capabilities. Substantial real increases in the past two budgets have enabled the Air Force to make much needed improvements in our combat strength.

Thanks to the compensation improvements enacted by the Congress and greater public recognition of the value of military service, we are seeing marked improvements in recruitment and retention. Our reenlistment rates for FY 1981 were up by 15-20 percent over the preceding year, and, of particular importance, pilot retention increased nearly 30 percent. These very encouraging signs notwithstanding, our personnel situation remains fragile. We still have shortages of experienced personnel — shortages caused by the exodus of skilled people in the late 1970s. Therefore, our recruiting and training requirements remain high.

We are now embarked on a comprehensive program to modernize our strategic nuclear forces. It will enable the United States to restore the strategic balance, deny the Soviets any prospect of gain from nuclear conflict, and provide a sound basis for the negotiations of equitable arms reduction agreements.

The priority emphasis the Air Force placed on improving the readiness and sustainability of our tactical and airlift forces over the past two years is bearing fruit. Our units are now better prepared for combat and we have committed additional resources that will yield further improvements over the next few years. Our operational units are flying more and training more effectively. Though our stocks of munitions are not yet at the level we would like to achieve, supply bins are beginning to fill and we have the needed stocks on order.

We are proceeding with the modernization of our tactical forces at a steady pace, replacing our Vietnam-vintage aircraft with a new generation of advanced tactical fighters. Our F-15s, F-16s and A-10s have proven themselves not only highly capable, but exceptionally reliable and maintainable as well. Our F-15s and F-16s, which have demonstrated their combat prowess, are requiring significantly less maintenance than the aircraft they are replacing. Furthermore, they have compiled excellent safety records.

Because of the attention to defense needs and budgetary increases of the last few years, we are well on the way toward correcting long-standing, serious deficiencies in our military forces. The Air Force is, today, an effective fighting force. Air Force units are equipped, trained, and ready to bring fighting power to bear anywhere in the world in a matter of hours. But, we still have some ways to go. We need to (1) increase aircraft production to prevent obsolescence and maintain an effective force; (2) provide our tactical fighters with improved capability to operate at night and in adverse weather; (3) restore experience and skill levels; and (4) in some cases, expand our force structure.

We must continue to strengthen our military capabilities because we are locked in a demanding long-term competition with a determined Soviet foe. The leaders in the Kremlin, backed by growing military might, are aggressively pursuing Soviet interests worldwide in ways detrimental to the West. It is a classic confrontation between radically different systems: individual liberty contrasted to repression; free enterprise versus a command economy; national self-determination opposed to Russian imperial hegemony. It is a contest which we cannot wish away. We must respond to this global challenge or else we surrender our future to the will of an adversary whose brutal actions at home and abroad leave room for no illusions about the bleak future we would face.

In all areas of peaceful competition with the West, the Soviet Union fares poorly. But, our successes in this peaceful competition are dimmed by the specter of growing Russian military might. The Soviets have given overriding priority to the one area in which they excel — the accumulation of military power.

Two decades of massive military spending have underwritten an awesome expansion of Soviet weaponry across the full spectrum of military capabilities. Over the past decade alone Soviet defense spending has exceeded comparable US spending by more than 40 percent. The Russians devote 12-14 percent of their annual GNP to the military compared to less than 7 percent in this country. As a consequence, the USSR has overcome many of the military advantages previously possessed by the West and has matched or surpassed us in important measures of military power. The Soviet Union has altered both the reality and perception of the global military balance. This increased strength has given Moscow the confidence to undertake military actions it might have considered too risky a decade ago when the balance favored the West.

Ensuring that our forces are strong enough to meet the Soviet challenge is made more difficult because we are competing against a foe that continues to improve his military capabilities.

To continue the essential strengthening of our forces, the Air Force is requesting $78.3 billion in total obligational authority for FY 83. Our proposed budget provides a balance among programs to improve the weapons, training, support, and manning of our forces. With this budget request, our priority efforts are directed towards: (1) providing adequate compensation and improving the quality of life for our service men and women; (2) strengthening our strategic nuclear forces; (3) further enhancing the readiness and sustainability of our general purpose forces; (4) expanding our airlift capability; and (5) modernizing and expanding our tactical air forces.

While we must continue to improve all elements of our forces to meet the country's global responsibilities and defend our interests, our paramount need is to increase the survivability and effectiveness of our strategic nuclear forces.

The steady expansion and modernization of Soviet strategic forces has brought about a dramatic shift in the strategic balance. The momentum of Soviet programs has begun to tilt that equation significantly in Moscow's favor. Reversing this relative decline in our strategic capabilities is fundamental to our security.

The President's strategic modernization program provides the blueprint for rebuilding a strong, credible nuclear deterrent and defense capability. The Air Force has responsibility for implementing most of the elements of this comprehensive program. With the support given this program by the Congress last fall, we have set in motion the following steps that our FY 83 budget continues:

- Rebuilding our aging strategic bomber forces by fielding 100 B-1B bombers and increasing procurement of air launched cruise missiles, while also pursuing vigorously the development of an advanced technology bomber;
- Improving the striking power of our ICBM forces by deploying the M-X, initially in Minuteman silos, while pursuing the development of more survivable basing modes;
- Enhancing the survivability and performance of our command, control and communications systems to ensure that we can obtain warning of an enemy attack and can communicate with our strategic forces; and
- Upgrading the nation's defenses against bomber and cruise missile attack by replacing our aging F-106 interceptors with F-15s and improving our atmospheric warning and surveillance with the enhancement of the Distant Early Warning line, deployment of over-the-horizon radars on the East and West coasts, and the expansion of our fleet of airborne warning and control aircraft.

While we must, as a matter of urgency, rebuild our nuclear deterrent, we must also continue to improve our general purpose forces. With Soviet conventional capabilities steadily expanding, it is imperative that our conventional forces have the capability to deploy and employ effective fighting power rapidly. Accordingly, our FY 83 budget continues the priority emphasis of the preceding two budgets on enhancing the readiness and sustainability of our tactical and airlift forces. We have programmed increases in operational flying hours, further improvements in training, and provision of sufficient stocks of spares, munitions, and other logistics support to enable our forces to fight effectively in a prolonged conflict.

Our proposed program also continues the modernization of our tactical forces. We will continue deployment of F-15s, F-16s, E-3As, TR-1s and complete our buy of A-10s. Our budget request provides for evolutionary improvements in these proven and reliable aircraft to enable us to defeat the Soviets in the air, to penetrate increasingly capable Soviet air defenses, to fight at night and in adverse weather, and to attack a range of fixed and mobile targets. We plan to acquire these systems at more efficient production rates though we still acquire them in numbers below those needed to expand our force structure in the manner that the growing threat demands.

The principal deficiency in our force projection capability remains the inadequacy of our long-range airlift. Our budget request continues the enhancements to our existing airlift fleet, but, even with these improvements the gap between lift requirements and our airlift capability remains large. To close that gap, we are proposing a two-part airlift improvement program. To enhance our mobility capabilities, we plan to procure additional KC-10s which can both refuel our deploying fighters and transports and carry cargo. And, to increase our capability to transport large volume cargo, particularly "outsize" equipment such as tanks, self-propelled artillery, and helicopters, we will be acquiring new C-5Bs, an improved version of the C-5As in our present airlift fleet.

Finally, and most importantly, our budget request emphasizes programs designed to provide adequate compensation and improved quality of life for our service men and women. We cannot afford to repeat the near-disastrous loss of experienced people that occurred in the late 1970s and still affects our forces today. We must demonstrate to our people that their service is valued and rewarded by maintaining pay comparability, current retirement pay and entitlements, adequate compensation for service moves, and improved base facilities.

Despite the considerable progress we have made in improving our forces, we remain badly stretched relative to our worldwide responsibilities. The necessary strengthening of our military capabilities cannot be accomplished overnight or in a single budget. It will require our continued best efforts and steady real increases in defense budgets for years to come.

We can afford the cost of maintaining a strong deterrent and defense capability. We are at a critical point in our prolonged competition with the Soviet Union. We cannot allow the gap between US and Soviet capabilities to widen further. Our very security and well-being is at stake. We must bear the burden now and correct the deficiencies in our military capabilities. We cannot afford the risk of conflict that would occur should we fail to provide adequate military forces.

We fully recognize the importance of a strong, healthy economy. We are committed to make the most cost-effective use out of every defense dollar, and we are aggressively seeking economies and efficiencies in the way we do our business. In support of the Administration's efforts to enhance productivity and achieve greater economies, the Air Force has undertaken a range of cost-saving initiatives, and we have identified over $1 billion in savings last year encompassing a wide range of procurement, engineering, and day-to-day activities. Through such initiatives as multiyear contracting we will realize further economies in 1982.

In sum, we must have military forces sufficiently strong and ready to meet our commitments and protect our interests around the globe. We are at a crucial point in history where international turbulence and the actions of an implacable and powerful Soviet adversary make it imperative that we strengthen our forces. We cannot afford the weaknesses and loss of credibility that a failure to face up to these challenges would bring.

We urge the Congress to support our FY 83 program so that, together, we may be able to provide the defense capability our country must have.

II. STRATEGIC FORCES

Soviet Strategic Capabilities

The steady expansion of Soviet strategic nuclear capabilities poses a clear and growing danger to Western security. During the past decade, while US strategic modernization programs were consistently stretched out, reduced, or deferred, the Soviet Union developed and deployed a steady stream of new, more powerful and increasingly accurate strategic systems. The modernization of Soviet strategic systems continues at a rapid pace with Moscow fielding new generations of more capable ICBMs, submarine launched missiles, and bombers.

As a result of their massive investment in strategic nuclear systems, the Soviets have wrought a dramatic shift in the strategic balance. Gone is the clearcut US superiority of the 1960s and the rough parity of the late 1970s. Today Moscow enjoys a position of some advantage and the momentum of on-going Soviet strategic modernization programs, if not countered by a vigorous US response, presents the ominous prospect of substantial Soviet superiority in the years ahead.

The most threatening aspect of the Soviet strategic buildup has been the vast improvement in their ICBM force. In contrast to our reliance on a balanced Triad of strategic nuclear delivery systems, over 50 percent of Soviet strategic delivery capability and nearly 80 percent of their available warheads are concentrated in their ICBM force. While our newest missiles — Minuteman IIIs — entered the force in the early 1970s, the USSR has deployed more than 750 SS-17, SS-18 and SS-19 ICBMs, most armed with highly accurate multiple warheads since the mid-1970s. Moreover, Moscow is continuing to upgrade its arsenal and has under development a new generation of missiles.

These ICBM improvements — in particular, the increased number of independently targetted warheads (MIRVs) with greatly improved accuracy — have provided the Soviets with the capability to destroy a large portion of our silo-based ICBMs. This makes it imperative that we develop with dispatch a survivable basing mode for our ICBMs.

Land-Based ICBMs/RVs

USSR	ICBMs	RVs	US	ICBMs	RVs
SS-11	580	580	MM II	450	450
SS-13	60	60	MM III	550	1650
SS-17	150	600	Titan II	52	52
SS-18	308	2500			
SS-19	300	1800			
Total	1398	5540		1052	2152

Figure 1.

The Soviet submarine-based strategic missile force is also being improved significantly. They are adding a new class of missile-launching submarine to their fleet which will be equipped with a longer-range, MIRV-capable SLBM. The Russians are also modernizing their bomber force through the continued deployment of the additional Backfire bombers and the development of a new strategic bomber, air launched cruise missiles, and possibly a new cruise missile carrier aircraft.

The Soviets have been similarly active in improving their strategic defense. While complying with the 1972 ABM Treaty, they have continued vigorous research and development on ballistic missile defenses and are apparently in the process of upgrading the ABM system deployed around Moscow. Soviet homeland air defenses are also being improved significantly. Over the next several years they will be deploying a much improved airborne warning and control aircraft, improved internetting for their ground-based radars, interceptors equipped with an effective "look down, shoot down" capability and new surface-to-air missiles such as the SA-10. By the late 1980s these systems, in combination, will substantially reduce the penetration prospects of our B-52s.

The Soviet Union's strategic forces constitute a serious, growing, and sophisticated threat. Their deployments of improved offensive and defensive systems as well as more capable and survivable means to command and control them are disturbingly consistent with and supportive of the nuclear warfighting objectives posed by Soviet military doctrine.

Strategic Modernization Program

The challenge posed by the Soviets is formidable. We face the foreboding prospect of significant strategic inferiority unless we promptly undertake the necessary actions to strengthen our nuclear forces and restore the strategic balance. Correcting the strategic balance is fundamental to our security. It is essential not only for the deterrence of nuclear war but also for its impact on perceptions of our reliability as an ally and our ability to restrain Soviet military and political adventurism.

We must proceed with an overall strategic modernization program that improves the survivability of our strategic forces, restores our strength relative to that of the Soviet Union, and assures that the Kremlin is denied any prospect of success in nuclear conflict. The broad strategic improvement program set forth by President Reagan last fall is designed to fulfill these objectives. We must proceed with it quickly; we must proceed with it resolutely. There must be no doubt in the minds of our foes and friends alike that we have the determination and capability to match the Soviets in strategic nuclear capability. We must restore our strategic strength, both to deter Soviet aggression and coercion and to provide a sound basis for the negotiation of equitable agreements to reduce strategic arms.

The Air Force has the responsibility to implement the bulk of the President's strategic modernization program. We will be improving the effectiveness of our ICBM force by deploying the M-X, and we will rebuild our aging bomber fleet by fielding the B-1B and equipping our B-52G/Hs with air launched cruise missiles, while also pursuing promising advances in the development of an Advanced Technology Bomber (ATB). To ensure that we can obtain warning of an enemy attack and can communicate with our strategic forces, we plan to improve the survivability and performance of our warning sensors and our command, control, and communications systems. Finally, we will also be upgrading the nation's defenses against bomber and cruise missile attack.

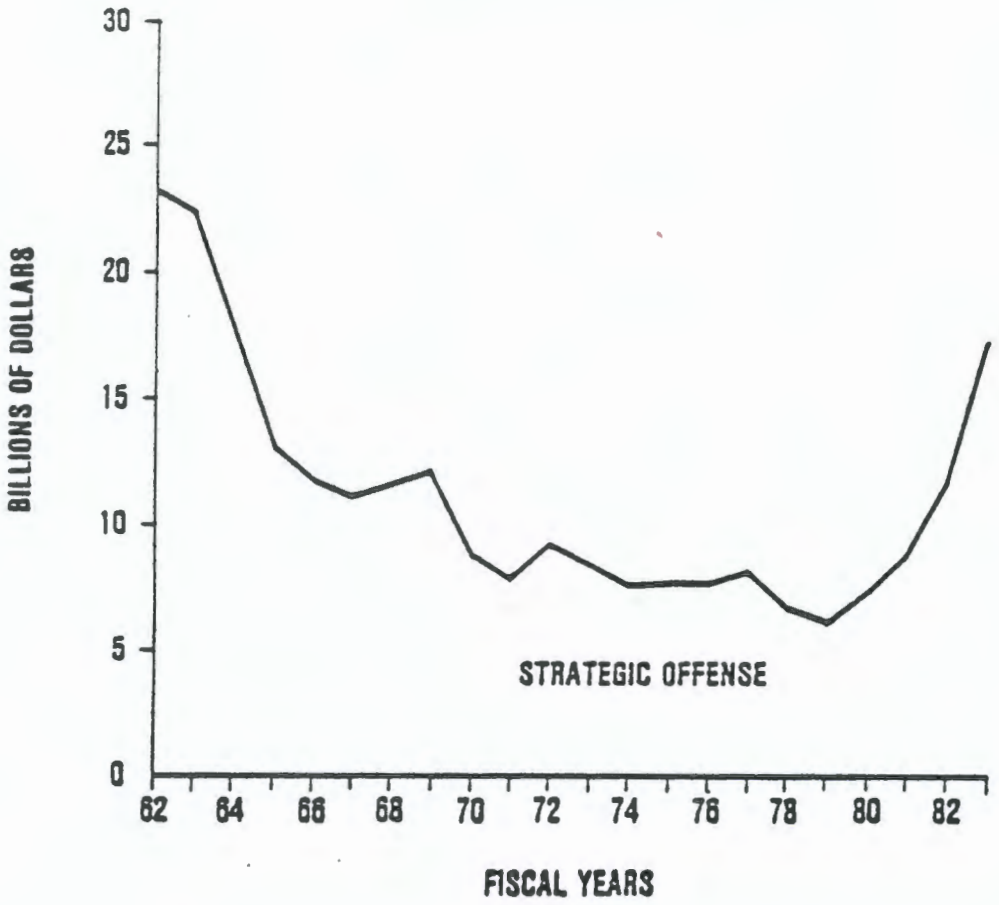

Figure 2.

Manned Bombers. Strategic bombers have been the cornerstone of our nuclear deterrent since the dawn of the nuclear age. Moreover these bombers serve as a powerful complement to our tactical air forces for the rapid projection of power around the globe.

The United States must have a modern strategic bomber force — a flexible, long-range striking force that can fulfill a wide range of nuclear and conventional missions. Bombers are the only element of the Triad of strategic forces that can be launched prior to a decision to employ these weapons. Weapons-carrying bombers can be launched to ensure their survivability or to signal national resolve during time of crisis — with confidence that the crews can be redirected or recalled as the situation develops.

Bombers also provide the only capability to conduct damage assessment strikes against fixed targets and to engage unanticipated or mobile targets through the use of human judgment and onboard sensors to determine target location and status at the time of delivery. In collateral maritime roles, bombers can provide an important supplement to US naval forces, providing maritime support in long-range sea surveillance, ship attack and mine-laying. As reusable strategic weapon systems, long-range combat aircraft can deliver large nuclear or conventional payloads accurately throughout the spectrum of conflict.

Our force of B-52s has performed these multiple roles effectively for the past two and a half decades. But, their ability to perform these demanding tasks is diminishing. They are becoming more difficult and expensive to maintain and, more importantly, will become increasingly vulnerable to a Soviet first strike and to Soviet air defenses over the next several years. Because the B-52s are not fully hardened against the effects of nuclear blasts and are relatively slow in flying out from their bases, they are more vulnerable to attacks from Soviet submarines patrolling off our coasts than desired. Moreover, because of their large radar reflectivity and relatively slow speed at low altitude, the B-52 will become far less able to penetrate increasingly capable Soviet air defenses during the latter part of this decade.

The limitations of the B-52 make it imperative that we start producing a replacement aircraft soon. Accordingly, we have undertaken a three-part bomber modernization program designed to maintain the usefulness of the B-52 while laying the groundwork for our future bomber deterrent capability. The program calls for:

- Equipping our B-52Gs and Hs to carry approximately 3000 cruise missiles. As their penetration capability declines during this decade, these bombers will transition from a penetrator to a shoot-and-penetrate and eventually to a pure stand-off delivery role.
- Production of 100 B-1Bs with an initial operational capability (IOC) of 1986. Its reduced radar cross-section, improved electronics countermeasures, high speed, and cruise missile carriage capability will enable the B-1B to serve as both an effective penetrator and a shoot-and-penetrate bomber against the Soviet homeland well into the 1990s. As the B-52 nears the end of its service life and as new ATBs enter the force in numbers in the mid-1990s, the B-1Bs will assume a greater share of the cruise missile carrier mission, eventually replacing the B-52s in this role. The B-1B will serve as standoff cruise missile carrier and conventional bomber well past the year 2000.
- Development and production of an ATB with an IOC in the 1990s. ATBs will be used initially to ensure effective penetration against the most heavily defended targets in the Soviet Union. Over the long term, the ATB will allow us to maintain the advantages of manned bomber weapons delivery into the Soviet Union into the twenty-first century.

We are proceeding with development of the ATB at the fastest reasonable pace. We recognize that it is essential for us to deploy a bomber that is effective across a range of combat applications and that it be durable and maintainable as well. Our ATB program is designed to meet these objectives. If technology and our development efforts permit, we will try to accelerate this important program. And if problems arise, we are determined to solve them effectively.

We are committed to producing the B-1B efficiently and within our projected cost guidelines, and are undertaking a number of steps to meet the program targets. The baseline program cost, in constant 1981 dollars, is $20.5 billion for 100 airplanes and initial spare parts. The total cost in "then year" is $29.5 billion. The basic aircraft design, including the necessary modifications to accommodate internal and external cruise missile carriage, has been completed and we will hold further design changes to an absolute minimum.

We are requesting about $4.8 billion in FY 83 for B-1B research, development, test, and evaluation; initial spares, for the purchase of initial aircraft; and to allow for the necessary funding of long lead time procurement of follow-on aircraft. We are also requesting $2.1 billion in FY 83 to maintain and improve the B-52 force. This amount includes requisite reliability and maintainability activities, research and development, and modifications associated with cruise missile integration.

Air Launched Cruise Missiles (ALCMs). We are beginning to deploy the air launched cruise missile, a survivable, accurate, long-range weapon that will increase targeting and routing flexibility and reduce exposure of our bombers to present and projected air defense systems. The addition of large numbers of cruise missiles will also assist B-52 and B-1B penetration missions by confronting the enemy with a large number of intruders.

The ALCM is in full production and follow-on operational test and evaluation. Contracts for 729 missiles have been signed and the FY 82 contract for an additional 440 missiles is under review. The first B-52G aircraft modified to carry 12 ALCMs externally attained an alert capability on schedule at Griffiss AFB, NY, in September 1981. The next significant milestone will be the achievement of an IOC for a B-52G squadron of 16 aircraft equipped with external ALCMs that is scheduled for December 1982. Procurement funding for ALCM in FY 83 is $646 million for 440 missiles.

Land-Based Missiles. Improving the capability and survivability of our land-based ICBMs is a key element of the President's strategic modernization program. ICBMs are an irreplaceable element of our strategic Triad and possess unique attributes not provided by bombers or SLBMs. These qualities include very high alert rates; high systems reliability; great accuracy; redundant and high confidence command, control and communications; highly responsive targeting flexibility; prompt hard target kill capability; and low operating costs.

M-X. We are requesting funds to complete the development of the M-X, to field a limited number of M-X missiles in existing Minuteman silos by 1986, and to develop a survivable basing scheme for the longer term. The M-X will carry 10 warheads compared to 3 for our newest Minuteman missiles. It will also be much more accurate than the Minuteman, thus enabling it to more effectively destroy hardened Soviet military targets.

The Administration concluded last fall that the previously planned multiple protective shelter basing mode for the M-X would not be survivable against potential Soviet threats and directed us to examine long-term alternatives to improve ICBM survivability. These include:

- Deployment of the M-X aboard a new, long endurance, continuous patrol aircraft;
- Deep basing of the M-X several thousand feet underground; and
- Ballistic missile defense, possibly in association with some form of deceptive basing.

In the interim, while a long-term survivable deployment mode is developed, the Administration has decided to deploy a minimum of 40 M-X missiles in Minuteman silos. We are examining current Minuteman bases to determine their potential for M-X deployment and plan to select the deployment base by mid-1982.

Though not a lasting solution to growing ICBM vulnerability, initially deploying M-X in silos will complicate and add uncertainty to Soviet attack calculations. More importantly, it is a needed early step toward counterbalancing Soviet hard-target, counterforce capabilities. With greater accuracy and more than three times as many warheads as our newest Minuteman missiles, the M-X will be able to hold at risk high value Soviet targets such as hardened command posts, nuclear storage sites, and missile silos.

It will thus confront the Soviets with some of the vulnerability problems that their heavy, accurate SS-18 and SS-19 ICBMs present to us. The Soviets, whose silo-based

ICBMs constitute the bulk of their strategic nuclear capability, would no longer enjoy the advantages of relative invulnerability for a large portion of that force. M-X deployment is likely to encourage the Soviets to seek more survivable basing for their large ICBM force, with consequent increases in cost, and perhaps, reduced operational capability.

While we do not depend on launching ICBMs under attack, the Soviets cannot dismiss this possibility. Deploying M-X in existing silos, in conjunction with planned improvements in communications and control systems, could reinforce, in Soviet eyes, the prospect that the US would launch ICBMs under attack. This option will further increase Soviet uncertainties about prospects of carrying out a successful first strike on our forces.

FY 83 funding for M-X development, silo deployment, and production of 9 missiles and follow-on basing studies totals $4.5 billion in then-year dollars. Of this amount, $2.8 billion is earmarked for RDT&E, $1.5 billion for procurement and $207 million for military construction. FY 83 R&D funding includes $310 million for long-term survivable basing options.

Minuteman. Our current Minuteman force, consisting of 550 Minuteman IIIs and 450 Minuteman IIs has been upgraded considerably since the first Minuteman I missiles were deployed nearly two decades ago. Our FY 83 budget request provides for continued improvements in the endurance and effectiveness of these missiles.

Increased endurance will be achieved through the use of lithium batteries to augment existing commercial and standby diesel power at some Minuteman III silos. This Minuteman Extended Survivable Power program will increase the time during which emergency power will be available in Minuteman III silos by a factor of fourteen. We also intend to replace 50 Minuteman IIs with a like number of Minuteman IIIs to help offset the decrease in strategic capabilities resulting from the phase out of the Titan IIs. In addition to demonstrating our resolve to redress the imbalance in US and Soviet nuclear capabilities, this program will alleviate a shortage of Minuteman II flight test vehicles. Finally, Minuteman III accuracy will be improved through modest change to missile hardware and software.

Titan. Our Titan II missiles were deployed in the early 1960s. They have already exceeded their planned operational life and have become increasingly difficult and costly to maintain. We are therefore proceeding with the retirement of Titan IIs, an action we expect to complete by 1987.

The phased retirement schedule permits prudent withdrawal consistent with safety and logistical constraints. It also allows missiles remaining on alert during the phase-out period to remain committed to the SIOP — continuing deterrent contribution. In the interim, we are continuing to implement procedural and hardware modifications to ensure that active Titan missiles are as safe as possible.

Command, Control, Communications (C^3). Strategic command, control, and communications programs (C^3) consist of systems, equipment, facilities, personnel, and procedures necessary to manage and employ our strategic forces and weapons. Effective deterrence requires a C^3 system which enables the National Command Authorities (NCA) to monitor the nuclear forces reliably, and if deterrence fails, to provide the necessary information, command facilities, and communications to prosecute a nuclear war effectively.

Rapid communication between our warning sensors, the NCA, and our commanders of nuclear forces is vital to the survival and employment of strategic forces. Our command, control, and communications systems must provide unambiguous and timely warning and attack assessment information to the President or his designated successors and must assure that the NCA can communicate effectively with our strategic forces. Perhaps no portion of our strategic modernization program is as important as upgrading our C^3 systems.

Technology has enabled us to gain better understanding of disruptive effects of nuclear weapons on our command and control communications systems. Our present landline, radio, and satellite systems could be seriously disrupted during trans- and post-nuclear attack. We are working with the telephone industry to protect landline systems from effects of electromagnetic pulse from nuclear bursts. The Air Force is upgrading its worldwide high frequency (HF) radio stations with equipment to provide improved coverage and higher power. New state-of-the-art equipment replaces airborne HF radio permitting a building block approach to future improvements known as adaptive HF. We are also adding the Air Force Satellite Communications System in bombers, missile launch control centers, and airborne command posts to ensure highly reliable two-way communication between command centers and the forces.

We are also exploring improved satellite capabilities at frequency ranges which can sustain communications in a jamming environment and a nuclear disturbed atmosphere. The MILSTAR Satellite communication program is designed to fulfill the urgent need for highly jam-resistant and survivable satellite communications for the command and control of new strategic and tactical forces. Strategic bombers, airborne and ground command posts, missile warning and attack sensors, and the tactical air control system will use this communications system.

Our VLF/LF improvement program continues with acquisition of higher power transmitters for our airborne command posts, development of miniature VLF/LF receivers for our bomber aircraft, and new signal processors to improve performance in a jamming environment. HF communications technology is used to better employ the entire high frequency spectrum in a nuclear environment.

In sum, we will be undertaking a wide variety of efforts to upgrade our strategic command, control, and communications over the next several years. We are requesting $3.8 billion in FY 83 to begin to build and reconstruct C^3 network to meet our needs in the face of projected enemy threats.

Strategic Defense. Our strategic defenses are designed to provide timely warning and assessment of enemy missile or bomber attack and to defend against Soviet bomber and cruise missile strikes. Timely, reliable warning is required to assure that we can retaliate effectively in a manner appropriate to the character of the enemy attack. Competent atmospheric defenses are necessary to preclude US vulnerability to a precursor bomber attack and to limit the damage that would be inflicted in follow-on bomber strikes.

Atmospheric Defense. Over the past twenty years, the US has significantly reduced forces assigned to atmospheric defense. The Soviet threat, on the other hand, has increased in numbers and capability in recent years with introduction of the Backfire bomber and improved air-to-surface missiles. Given this growing threat, atmospheric tactical warning and surveillance is required to provide support for intercept operations and assure that retaliatory responses can be made. Our current system has serious deficiencies in providing the desired warning to the NCA under the best conditions.

Atmospheric defense for North America is a cooperative US-Canadian effort. Atmospheric surveillance and warning systems are configured to control access to North American airspace. The surveillance system is composed of ground-based radars in the Distant Early Warning (DEW) Line, the CADIN - Pinetree system in Southern Canada, and the Joint Surveillance System (Federal Aviation Administration and military joint use radars in Alaska, Canada and the continental United States). During periods of crisis, surveillance and airborne command and control of interceptor forces will be provided by the E-3A AWACS aircraft. Fighter interceptor aircraft currently assigned to atmospheric defense missions include F-106s, F-4s, and F-15s.

The Air Force has developed a master plan for tactical warning, attack characterization, and air defense and control requirements which has been largely adopted by the Department of Defense. We have also recommended force structures to meet these tasks. For northern surveillance requirements, we propose to upgrade our aging DEW Line radars deployed across Northern Canada. In addition to coverage by the Joint Surveillance System, for peacetime, wide-area surveillance, we plan to deploy long-range Over-the-Horizon-Backscatter (OTH-B) radars on the East and West coasts. These radars will provide all-altitude coverage and early warning of hostile intruders out to approximately 1800 miles. We are also recommending deployment of a southern-looking OTH-B radar to complete North American wide-area surveillance coverage. Finally, the President's strategic modernization program calls for the acquisition of additional E-3A AWACS aircraft for continental air defense. Funding for OTH-B, the enhanced DEW Line, and additional E-3A AWACS in FY 83 is $86.6 million, $131.8 million, and $47.1 million, respectively.

The Air Force plans to eventually convert five active F-106 squadrons to F-15s to improve substantially the capability of our air defense interceptor force. F-15s have a long-range, large volume search radar and a look-down, shoot-down capability to complement the wide-area surveillance system. We are examining additional F-15 procurement for both air defense and worldwide air superiority requirements. We are requesting $80.9 million in FY 83 for military construction, O&M, and spare parts procurement associated with the deployment of air defense F-15s in our active forces.

Ballistic Missile Warning. The credibility and viability of our national defense policy of nuclear deterrence and escalation control are critically dependent on our ability to provide unambiguous, timely, reliable, survivable, and enduring tactical warning and assessment of an enemy missile attack.

Ballistic missile attack warning and assessment are currently accomplished by space satellite systems, the three Ballistic Missile Early Warning System (BMEWS) sites, the Perimeter Acquisition Radar Attack Characterization System radar, the Eglin AFB FPS-85 radar, the MacDill AFB SLBM radar, and two PAVE PAWS SLBM detection and warning sites.

Several of these systems are being upgraded. Satellite survivability is being improved with the addition of more survivable ground stations. Replacement of the aging Missile Impact Predictor computers at the BMEWS sites in Alaska, Greenland, and England continues. We will soon initiate modifications to BMEWS radars at Thule and Fylingsdale which will permit them to track a larger number of objects with considerably increased impact prediction accuracy.

Site surveys for two additional phased array radar sites for the detection of submarine launched ballistic missiles radar have been completed in the southeastern and southwestern US. The deployment of these new PAVE PAWS sites will substantially improve SLBM tactical warning capability and allow us to close two older, less capable radar systems which are becoming increasingly costly to maintain.

Space Defense. We are currently considering steps to improve our space surveillance capabilities that include upgrading existing electro-optical sensor systems and upgrading ground-based SPACETRACK radars to provide more timely and accurate data. In addition, command and control capabilities for space defense are being improved and we are continuing to work on the development of an antisatellite capability.

Antisatellite (ASAT) Activities. As US dependence on satellites in space continues to grow, so does the Soviet threat. The Soviet Union currently has an operational antisatellite system and improved future systems are projected. The current system has the potential to destroy satellites in low Earth orbit.

The US Air Force is continuing development of an ASAT capability as a means both to deter Soviet ASAT use and, if necessary, to destroy Soviet space systems that pose a threat to our forces. The US ASAT weapon is an air launched system consisting of a modified Short Range Attack Missile first stage, an ALTAIR III second stage, and a Miniature Vehicle conventional warhead. In FY 83, $218 million is requested for development and flight testing of this ASAT weapon which will be carried by designated air defense F-15s.

Laser Weapons. The Air Force is continuing an intensive research effort to investigate high energy laser potential from the ground, air, and space. In response to congressional direction, DARPA's laser technology research was accelerated in 1978 to investigate directed energy weapon potential, with funding of around $100 million per year. The Air Force is working closely with DARPA, and we have increased our research efforts accordingly.

We are requesting FY 83 funding of $95 million for our high energy laser program, which concentrates on airborne laser application, and $41 million for a new space-based laser research program. We recognize the need to have a much sounder base of research and advanced technology in these areas before weapons development decisions can sensibly be made, and are directing our research efforts to that end.

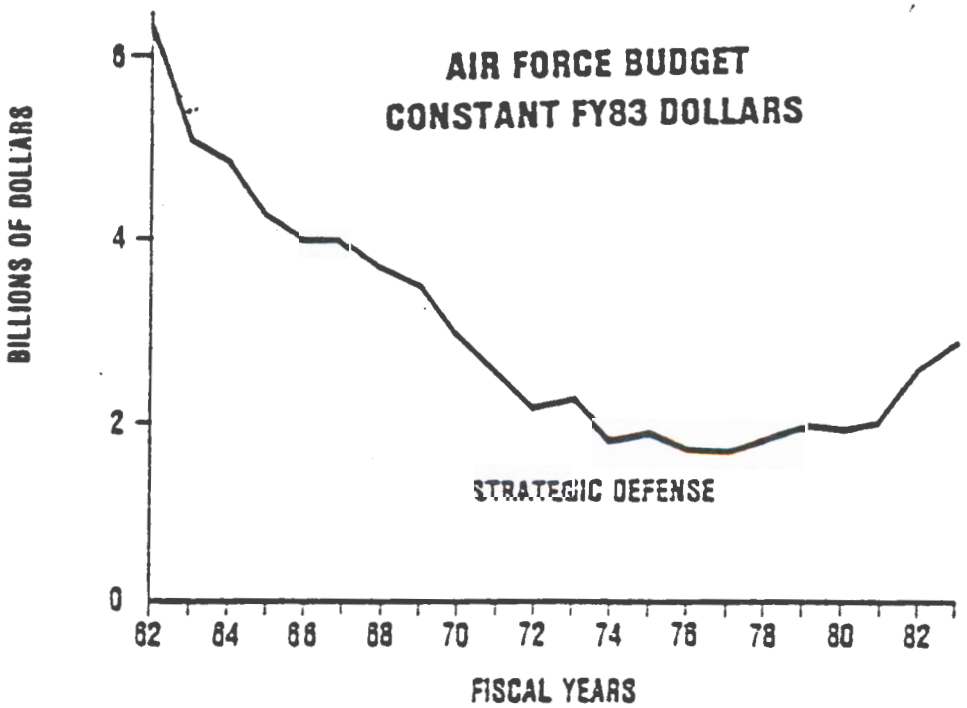

Figure 3.

III. TACTICAL FORCES

The necessity of providing, in concert with our allies, a credible defense against Soviet conventional forces provides the basic yardstick against which our requirements must be measured. Over the last decade Soviet theater warfare capabilities have improved and expanded significantly.

Soviet Force Developments

The Soviets have instituted an awesome modernization of their numerically superior tactical air force. They have transformed their tactical air force from one consisting mainly of limited range, low payload, day fighters into a potent, long-range, tactical air arm with increasing capability to operate in adverse weather. They are producing capable, modern tactical fighters at a rate more than double that of the United States. In Europe, NATO airfields, ports, and storage facilities are within striking distance of the modern, longer range and large payload Soviet tactical fighters based in Eastern Europe and the Western Soviet Union.

The mobility and firepower of Soviet ground forces have also undergone substantial improvement. A steady infusion of large numbers of new tanks, infantry fighting vehicles, self-propelled artillery, and attack helicopters has greatly increased the offensive power of the Soviet Union. To protect this force the Soviets have fielded an extremely capable air defense system consisting of a large force of highly capable interceptors, air defense artillery and an expanding family of surface-to-air missiles all supported by a linked array of mobile and fixed radars.

Furthermore, the close proximity of large Soviet forces to Western Europe, Southwest Asia and Northwest Asia — regions vital to our interests — provides them interior, protected lines of communication which facilitate their ability to conduct offensive actions. In contrast, our forces based in the continental United States would be compelled, in the event of Soviet aggression, to deploy over intercontinental distances to reach these theaters and reinforce in-place forces.

Requirements

With allied ground forces seriously outnumbered and the Soviets able to pick the time and place of aggression, we must rely heavily upon the firepower and flexibility of airpower to deter and, if necessary, defeat a Soviet attack. Soviet doctrine, force structuring, and training exercises indicate, in the event of European conflict, Warsaw Pact forces would attempt to seize the initiative by mounting a massive air and ground blitzkrieg offensive. We would be confronted with armor-heavy enemy ground forces assaulting allied lines at several points, backed by waves of reinforcing divisions moving toward the front and supported by massive theater wide air strikes.

To maintain a credible deterrent against such Soviet aggression our tactical air forces must be able to do two things: (i) quickly achieve air superiority so that our armies and air forces can fight and be reinforced free from the disruption of enemy air attacks and (ii) provide critical offensive air support to our ground forces.

To accomplish these demanding and simultaneous tasks with our limited force structure we must have highly capable, flexible tactical aircraft able to perform both air-to-air and air-to-ground missions. These aircraft must be capable of flying a high number of effective sorties per aircraft over a sustained period of time and be equipped to fight at night and in adverse weather conditions.

In the air-to-air role our aircraft must be able to detect and destroy the numerically superior, sophisticated Soviet aircraft before they can attack our forces. To do this we require effective, autonomous search radars, a mix of all-aspect missiles, avionics which facilitate weapons employment and superior aircraft performance.

For successful performance of the air-to-ground mission our aircraft must be able to evade and suppress enemy defenses. They must be able to deliver effective munitions in all weather conditions whenever and wherever Soviet forces are conducting offensive operations or are most vulnerable.

The Soviet blitzkrieg relies upon a steady flow of reinforcing formations to the front. Consequently, it is especially vulnerable to an effective air interdiction campaign designed to destroy, disrupt, and delay these follow-on echelons. Moreover, in areas such as Southwest Asia, where we do not have a substantial number of forward deployed forces, air interdiction is critical as a timely means to counter a Soviet invasion.

Our requirements are, of course, directly related to Soviet military capabilities. As Soviet combat power increases we must be able to adapt in order to preserve the survivability and effectiveness of our forces. To maintain an effective tactical air arm the Air Force must continue to exploit the technological advantage that this nation possesses. We must continue an aggressive research and development program while also improving our current aircraft through evolutionary improvements and vigorously pursuing initiatives to upgrade the combat readiness and sustainability of our tactical air forces.

Further complicating our warfighting posture is the fact that, by the very nature of our global strategy, we must plan to use our forces to provide tactical air support in more than one theater. We cannot expect to offer a credible deterrent unless we procure highly capable aircraft in the numbers necessary to counter the threat by being able to fight and win an intense air campaign. It is a harsh fact, made clear in World War II and in the Arab-Israeli conflicts, that victory requires substantial numbers of capable aircraft. Even a cursory look at Soviet force structure and production rates makes it clear they have no illusions concerning the high consumption rates of modern warfare.

Since budgetary and infrastructure constraints limit the alternatives available, we must also rely on a mix of aircraft to ensure we are able to meet our requirements across a wide spectrum of mission demands. Furthermore, the United States cannot do the job alone. We will continue to depend heavily on Allied forces to help us maintain a credible and effective defense capability.

Capabilities

The modernization of our tactical forces following the Vietnam conflict has provided us with a highly capable force. However, the continuing growth of the Soviet threat makes it vital that we continue to enhance the capabilities of our tactical air forces.

Tactical Modernization Programs. The F-15 Eagle has proven to be the most effective air superiority fighter in the world today. Superior aerodynamic performance, combined with an avionics suite designed to enhance pilot capability in the air combat environment, and a mix of effective air-to-air weapons will permit the F-15 to retain its advantage well into the 1990s.

In addition to its demonstrated combat effectiveness, the F-15 has proven exceptionally reliable as well. When provided with adequate spare parts during realistic exercises, we have shown the F-15 can maintain high sortie rates. During the Coronet Eagle deployment to Europe, F-15s from the 33rd TFW flew more than 1000 sorties in 20 flying days. For 18 employment flying days these aircraft averaged 3.0 sorties per aircraft, with 99.7 percent of the sorties effective. In 10 days of surge flying, 602 sorties were flown for an average daily sortie rate of 3.3.

With this year's buy of 42 F-15s we continue the modernization of our air superiority forces. The F-15's demonstrated all-weather capability also makes it an ideal replacement for our aging interceptor force.

We need to remedy the serious shortfall in our ground attack capability in night and adverse weather conditions, particularly our ability to attack Soviet second echelon forces and other important targets behind enemy lines. Because of the aircraft's flexibility and growth potential, the Air Force is evaluating a derivative of the F-15 with selected air-to-ground enhancements to meet this requirement. The derivative F-15 is an evolutionary growth in a proven, reliable aircraft. This modification broadens the utility of the F-15 without in any way reducing its outstanding air-to-air capabilities. It would enable us to use this flexible aircraft in both the air-to-air and ground attack role.

The specialized A-10 Thunderbolt II is dedicated to the close air support (CAS) mission. Its armor killing 30mm gatling gun and survivability enable it to provide valuable support to our ground forces. Our planned buy of 20 A-10s in FY 83 completes our planned procurement of this aircraft.

The multi-mission F-16 Fighting Falcon has met or exceeded our expectations. Winning the 1981 Royal Air Force Tactical Bombing competition, the F-16s from the 388th TFW, the Air Force's first F-16 wing, demonstrated the aircraft's exceptional air-to-air and air-to-ground capabilities. Procurement of the F-16 at efficient production rates will provide our theater commanders with a flexible aircraft able to respond to changing tactical situations and requirements. F-16s complement F-15s in air superiority roles and supplement F-111s, F-4s, A-7s, and A-10s in ground attack roles.

A derivative of the F-16, incorporating an innovative "cranked arrow" wing design, will be evaluated by the Air Force over the next year. This derivative aircraft will begin flight tests in the summer. It is expected to offer substantial increases in range and payload at a moderate increase in cost over current production models of the F-16. It could also incorporate night and adverse weather capabilities and could be flexibly employed in both air-to-air and air-to-ground missions. We will conduct a comparative evaluation of the derivative F-15 and F-16 to determine which candidate is the best platform to fulfill our requirements for long-range, large-payload attack missions.

The growth potential of F-15s and F-16s provides a solid foundation for continuing force modernization. By modifying both these aircraft we will be able to maintain their margin of superiority into the next decade and avoid the high costs of developing new aircraft. The multinational staged improvement plan makes it possible for the F-16 to accommodate the advances in weapon systems and sensors necessary to meet the mid-to-late 1980s threat. A similar staged improvement plan for the F-15 has also been initiated to upgrade its radar, communications, electronic warfare and armament systems.

By the early 1990s, our current fighter designs (F-15 and F-16) will be 20 years old and will be approaching the limits of feasible modification. Therefore, to meet expected threats and evolving mission needs in the 1990s and beyond we must begin work now on a new aircraft. This new fighter aircraft is the Air Force's program designed to develop a new generation fighter which would eventually replace the F-15 and F-16. The $27.3 million in this year's budget allows for concept exploration and validation work, including initial development of an advanced technology engine.

Night and All Weather Ground Attack. Since day visual weather conditions average only 4.5 hours per day during European winters, we must provide our tactical aircraft with the capability to carry out their missions at night and in weather. Without such a capability we would be in the same situation we faced in December 1944 during the Battle of the Bulge when Allied tactical airpower was not able to support ground units. Currently, only the F-111 has the capability to deliver large payloads effectively at long range, at night and in adverse weather.

Development of the low altitude navigation and targeting infrared system for night (LANTIRN) will assist our F-16 and A-10 aircraft in penetrating enemy defenses at low altitude and in finding and destroying enemy targets at night and under the weather. The LANTIRN system consists of two pods, one for navigation and one for targeting.

Tactical Command, Control, Communications. As in the strategic area, C^3 is vital for successful tactical operations. Developments in Soviet capabilities must be countered by efficient command and control conducted through anti-jam communications. Our communications will benefit greatly by such anti-jam programs as SEEK TALK and the joint tactical information distribution system.

The E-3A Sentry gives our tactical forces significant C^3 capabilities with flexibility vital for worldwide responsibilities. The $698.3 million in this budget permits maintenance of the existing AWACS program, purchase of two aircraft, and provides long lead funding for one additional aircraft. We are also contributing $186.1 million this year to the NATO AWACS program.

Electronic Combat. It is vital to the survivability and effectiveness of our forces that we be able to use the electromagnetic spectrum while denying it to the enemy. To accomplish this goal, we are placing emphasis on posturing an effective electronic combat (EC) capability to counter, protect, and sustain operations in the enemy threat environment. This capability includes a mix of destructive and disruptive systems to suppress or destroy enemy radars; jammers; command, control, and communications nodes; and terminal threat weapon systems.

The F-4G Wild Weasel is an important near-term lethal defense suppression system. When equipped with the AGM-88 high speed anti-radiation missile (HARM), it will be able to destroy emitting enemy threat radar systems. Longer-term combat effectiveness will be enhanced by acquisition of the precision location strike system (PLSS) which will accurately locate and guide weapons and weapon systems against enemy targets in all weather conditions.

In the disruptive category, the EF-111A is a vital part of our effort to electronically counter Soviet early warning, acquisition, and ground controlled intercept radars. The last nine of 42 EF-111As are funded in this budget. Other important disruptive programs include the Compass Call EC-130H and the ground mobile C^3CM systems designed to counter the enemy's command, control, and communication structure.

Additionally, we are funding acquisition of improved self-protection systems and updates for existing systems. We are pursuing major efforts for sustainability to include reprogramming, portable capabilities to test and maintain EC systems, and establishment of an effective logistics and technology base.

Air Base Survivability. The Soviet's growing chemical, air, missile, and unconventional attack capabilities increase the vulnerability of our exposed forward air bases. We have established an air base survivability (ABS) program to reduce these vulnerabilities. This program provides a focal point for direction of all actions designed to improve our active and passive defenses.

The Air Force is in the final stages of developing an ABS Master Plan investment strategy. This plan provides current evaluation of the Air Force ABS posture based on present and future threat assessments. It identifies current activities contributing to ABS and depicts their interrelationships. The plan also identifies deficiencies and provides recommendations. Finally the plan will develop a comprehensive, prioritized investment strategy.

To provide defense against fast moving, low flying aircraft for our seven air bases in the UK, we are procuring 32 Rapier fire units and supporting equipment from the British. The UK will provide manning and training with Royal Air Force personnel. The first fire units will be delivered in FY 83 with all 32 units being delivered by FY 86. Our FY 83 program provides $99 million for Rapier.

Chemical Warfare. Soviet forces are well trained and equipped to conduct offensive CW operations. Based upon intelligence information from Afghanistan and Southeast Asia, they are using chemical agents against those who have no defenses or means to retaliate. Our chemical warfare (CW) program is designed to offset these Soviet capabilities by correcting our deficiencies. The importance of this program cannot be overemphasized. Until we have a viable CW capability our theater forces remain at risk.

We are requesting funds for major efforts designed to correct identified deficiencies in our defenses. In addition, we are making major research and development efforts to design more effective and comfortable equipment. These include improved, "breathable" fabrics for overgarments, more sensitive detection devices, improved decontaminating equipment, and collective protection systems.

As with nuclear weapons, deterrence of CW requires a viable offensive capability. Our present capability is limited due to a lack of useable munitions and a need for additional persistent agent weapons. We must speed the development and procurement of binary weapons such as the Bigeye chemical spray bomb. Binary weapons, which do not contain toxic substances until the components are mixed, give us both required offensive capability and safe handling characteristics.

Intermediate Range Nuclear Force Modernization

Continued Soviet deployment of nuclear armed SS-20 missiles and Backfire aircraft has created a marked disparity between NATO and the Warsaw Pact in theater nuclear capability. As a result NATO decided in December 1979 to modernize its intermediate range nuclear forces through deployment in Europe of ground launched cruise missiles (GLCM) and the Pershing II missiles, and, more recently, in a parallel effort, to pursue arms control.

Ground Launched Cruise Missiles. NATO ministers agreed to deploy 464 GLCMs. Construction is under way at Greenham Common in the UK to meet a late 1983 IOC. The governments of Italy and the Federal Republic of Germany have also agreed to GLCM deployments. Technical arrangements dealing with basing and construction of support facilities are being negotiated with various European countries.

The GLCM program presents the opportunity for NATO to demonstrate commitment and resolve by offering a modern, credible deterrent to Soviet actions. Soviet propaganda efforts and increasing European concern over the presence of nuclear weapons underscore the need to make clear the deterrent value of these weapons. As history has shown with chemical munitions, weapons are less likely to be used when no doubt exists about the ability to retaliate in kind. Therefore, until equitable and verifiable methods are found to eliminate such weapons, it is extremely important to demonstrate our willingness to move forward with the GLCM program.

The GLCM system has experienced cost growth and testing program slips. As a result, the program has had a series of in-depth examinations and reviews directed by the Air Force and the Office of the Secretary of Defense. These reviews found GLCM operational concepts generally sound and projected GLCM requirements were validated. Software delivery delays affected the flight test and evaluation program, with the next test flight scheduled for February 1982. Plans are being developed to accommodate the delay and to ensure the December 1983 IOC is achieved.

IV. FORCE PROJECTION

The global character of US interests and commitments makes it imperative that we maintain forward deployed forces in many regions and be able to deploy effective combat forces worldwide with great dispatch.

The fact that many of our allies and areas critical to the West are close to the USSR and far from the United States places added demands on our mobility forces. We must cross oceans to reinforce and resupply our forces in Western Europe and the Far East. Moreover, we are 7000 miles from the vital Persian Gulf — the world's oil lifeline — with no forward deployed forces and only limited support facilities in the region, and no assurance of access to en route bases for refueling in time of crisis. These circumstances place a premium on improving our mobility and force projection capabilities.

Airpower is a critical factor in providing this rapid response capability. With their flexibility, long-range, speed and, with aerial refueling, independence of en route bases, air forces can project power anywhere in the world in a matter of hours. Our movements of AWACS to Saudi Arabia, Egypt and Europe during crises in the past year; routine tactical fighter deployments worldwide, and airlift support of overseas exercises all demonstrate our commitment and capability to protect Western interests, wherever threatened. In addition to providing fighting power rapidly, deployments of Air Force units can "show the flag" and, thus, serve as a stabilizing factor both in peacetime and in crisis situations.

Our ability to get combat forces to a conflict area quickly and to provide responsive support for such forces is critical to limiting a conflict, deterring further aggression and defeating enemy forces. Rapid reinforcement of our forward deployed units by both our active and reserve units is an essential part of our strategy for the defense of Europe and Korea. Rapid force deployment capability is necessary to provide effective deterrence and defense capability in Southwest Asia and other regions.

In light of these demands, there is an urgent need to improve our mobility capabilities. The Congressionally Mandated Mobility Study (CMMS), provided to the Congress last spring, set forth overall US military mobility requirements and evaluated alternative mobility improvements. It recommended a balanced program of airlift, sealift, and strategically prepositioned equipment and supplies to enable us to provide timely reinforcement of forward deployed forces and rapid projection of US combat power.

Airlift Deficiencies

A major deficiency in our rapid deployment and reinforcement capability is the shortage of airlift. Though prepositioning and sealift improvements are essential parts of an overall mobility program, airlift is the most responsive and flexible element. Only through airlift can we deploy effective fighting forces to conflict areas throughout the world in the early hours and days that are so critical. The gap between airlift capabilities and requirements is well documented. The CMMS, which tied together numerous studies of airlift requirements and capabilities conducted in the past, concluded that the United States does not have sufficient airlift capability to meet our taskings in the required time. We have a significant shortfall in airlifting both normal and outsize cargo to overseas areas and within overseas theaters.

While we have had deficiencies in airlift capability for some time, recent developments have increased both airlift requirements and the urgency of expanding our capability. Improved Soviet offensive capabilities have decreased warning and, thus, mobilization time, and place a premium on bringing US power to bear quickly. The altered situation in Southwest Asia following the Soviet invasion of Afghanistan and the continued turbulence in that region has placed added demands on our forces to be able to deploy rapidly. Furthermore, Army equipment modernization has increased airlift movement requirements in terms of the tonnage and the number of outsize items associated with each division. Finally, uncertainty about the availability of en route bases and overflight rights, as well as availability of airfields and facilities in the destination areas, has complicated airlift movement of men and equipment.

Current Capabilities

The C-5, which represents about 25 percent of our overall wartime long range airlift capability, is the only aircraft able to carry "outsize" equipment such as tanks, self-propelled artillery, helicopters and communications vans, over intercontinental ranges. About 27 percent of the cargo destined for NATO in the first 15 days of a war is outsize. For a major conflict in Southwest Asia, outsize cargo is about 20 percent of the first 15-day requirement. Over half the total cargo involved in moving an Army mechanized unit is outsize. Yet, we have only 70 operational C-5 aircraft — far short of our needs.

The C-141 is the backbone of our long range intertheater organic airlift. The 234 operational C-141s represent about 35 percent of wartime intertheater airlift capability. The C-141 can carry oversize (jeeps, rolling stock, helicopters) or bulk (palletized packages) cargo.

The C-130 aircraft is our primary intratheater airlifter. It carries oversize and bulk cargo over short distances. Of the 512 C-130s in the Total Force, 294 are assigned to the Reserve and Air National Guard.

The Civil Reserve Air Fleet (CRAF) is an essential part of our wartime airlift capability. Through contractual agreements with civil carriers, we have arranged for long-range cargo and passenger aircraft to augment the organic airlift fleet during contingency deployments. CRAF currently represents 40% of our national capability and provides a relatively low-cost lift because we pay only full operating costs for the aircraft when they are used for military purposes in time of crisis or war.

Airlift Improvements Program

Air Force mobility funding totals $4.96 billion in FY 83. The program to decrease the airlift shortfall calls for: increasing the capabilities of existing forces and expanding our airlift forces by acquiring additional KC-10s and procuring C-5Bs.

Figure 4.

As shown in figure 4, following the acquisition of the C-5A, Air Force mobility funding dropped considerably during the 1970s. This resulted in shortages of spares and materials handling equipment and an aging airlift force. The growth in FY 81 and 82 reflects increased funding for spares and modification programs to improve the capability and service life of existing aircraft.

Improvements to Existing Aircraft. Our budget requests funds to continue a range of improvements to our existing aircraft. These include: increasing wartime utilization rates of all airlift aircraft by investment in spare parts and higher manning ratios; continuing C-5A wing modification; expanding aerial port capacity; and improving our materials handling capability.

The airlift spares program received significant funding increases in FY 81 and 82. The FY 83 program completes funding for the C-5A wartime utilization rates and adds significant sustainability for C-141 and C-130 aircraft. Because of two-year average production time for spares, however, we will not reach these stock levels until FY 85.

The service life and carrying capability of our C-5A fleet is presently limited by widespread cracking in the wing structure. The wing modification program will remedy this deficiency and will extend aircraft service life by 30,000 hours, thus continuing C-5A useful life well into the 21st century. The wing modification program is on schedule with the first five operational aircraft beginning modification in the current fiscal year. In FY 83, we are requesting $294 million to modify 15 more C-5As and purchase 18 modification kits.

The mobility enhancement program also includes increasing our capability to offload and process cargo on the ground. The $45 million requested for materials handling equipment will help alleviate shortfalls in wartime requirements.

Expanded Airlift Capability. In view of the compelling and urgent need for additional airlift in the near term, we have modified our earlier airlift plans. We now plan to proceed with a combined program to increase our long-range airlift capability over the next few years. This program calls for the procurement of 44 additional KC-10s and the acquisition of 50 C-5Bs.

KC-10. The KC-10 is a combined tanker and cargo aircraft that will provide both the long-range air refueling capability that we need for global force deployments and, at the same time, carry an impressive amount of equipment and supplies. Because of its long range and large fuel carrying capability, the KC-10 can operate without reliance on en route basing if need be and, thus, is particularly valuable for worldwide force deployments. In addition, the KC-10 has a larger cargo carrying capability than the C-141B. In procuring additional KC-10s, the Air Force will be able to take advantage of a particularly favorable contract option. Our FY 83 budget requests $829 million for the purchase of 8 KC-10s, spares, and long-lead items.

C-5B. By acquiring C-5Bs we will be able to begin promptly to correct the serious shortfall in our airlift capability and to improve our ability to transport large volume and weight cargo over intercontinental distances. Acquisition of C-5Bs will enhance our ability to reinforce Europe in the early hours and days of conflict and our ability to project effective combat forces rapidly worldwide. With no research and development required and an existing production base, we will be able to begin to field C-5Bs by the middle of this decade, well before a new production aircraft would be available. We have a fixed price offer for the procurement of C-5Bs. Our FY 83 budget requests $860 million for the initial purchase of two aircraft.

Prepositioning

Prepositioning of wartime materials and equipment has been integral to our worldwide strategy for years. It allows us to introduce combat units to an area quickly with the bulk of their equipment and supplies already in the theater. In Europe and the Pacific we maintain war reserve consumables and equipment for both in-place and augmentation units. Prepositioning is vital for a Southwest Asia contingency due to the long distances and austere environment involved. In FY 81 we began maritime prepositioning of munitions, fuel, rations, and construction materials in Southwest Asia. For FY 83, our program will, as negotiations with various countries permit, preposition vehicles, munitions, fuel, water equipment, and portable support facilities, and increase our combat capability in this vital region.

Aerial Refueling

Because of the wide variety and great number of users, the need for combat flexibility over virtually the entire globe, and the growing political restrictions on landing rights and overflight, our aerial refueling needs have increased substantially. All our modern aircraft have air refueling capability.

Our current tanker fleet consists of 615 operational KC-135As. We plan an additional force of 60 operational KC-10s to provide air refueling and cargo support for long-range strategic airlift and tactical deployments.

The KC-135 was originally purchased in the 1960s to support our strategic bombers. Today, our bombers require increased refueling support due to changes in mission profiles and tactics and range degradation resulting from modifications. These requirements will increase further over the next few years due to increased drag caused by the external carriage of air launched cruise missiles (ALCMs).

Over the years, we have come to rely increasingly on aerial refueling for our general purpose forces. Almost all force deployments require air refueling, not only for deploying fighter aircraft, but also for airlift aircraft carrying support equipment and personnel. With aerial refueling we are able to deploy forces anywhere in the world without dependence upon en route bases which, as recent experiences have shown, might not be available. In FY 81, the Air Force deployed 205 fighters non-stop to Europe and 86 to the Middle East and the Pacific by using aerial refueling. And, in Bright Star '82, we flew Army paratroopers directly from Fort Bragg to Egypt, paradropped them into a mock combat zone and then returned non-stop to the US.

We must have a refueling force capable of responding across a wide spectrum of conditions. Our planning calls for increased aerial refueling to support contingencies in Europe, Southwest Asia, and elsewhere. With our limited tanker resources, we would have to divert tanker assets from the strategic mission to support our fighters and transports and accept SIOP degradation at a time when this would be least acceptable.

KC-135R. A cost effective means of providing this badly needed additional capability is to modernize the KC-135 by reengining it with the CFM56. KC-135s, reengined with the CFM56 and designated KC-135Rs, will be able to do the job of one and a half KC-135As and will have a useful life well into the next century. In addition to providing increased offload capability, the KC-135R will provide performance improvements, including much greater engine thrust, increased fuel efficiency and reduced noise and air pollution. Reengining will provide increased operational flexibility since the KC-135R will be able to operate from shorter runways.

Reengined KC-135s will also be 25 percent more fuel efficient. A fleet of KC-135Rs would save approximately 110 million gallons of fuel per year, a five year savings of over $715 million (assuming a constant FY 82 fuel cost of $1.30 per gallon). Reengined KC-135s will meet the Federal Aviation Administration regulation for noise and pollution — while the present engines exceed these standards by significant margins.

FY 83 funds will be used to procure between 20 and 25 CFM56 reengining kits which will bring the total on order to between 30 and 35. We plan to buy reengining kits for 300 KC-135s, approximately one-half of the fleet, during the FYDP period. With strong congressional support, the reengining program has been accelerated ahead of its original milestones. The first production aircraft will be modified in February 1982, and the total developmental effort will be completed after flight testing the first production aircraft in mid-1983.

Rapid Deployment Joint Task Force

We have identified several units for deployment in RDJTF contingencies. These include four tactical fighter wings, including two Air National Guard (ANG) fighter squadrons; a Strategic Projection Force (SPF) composed of bombers and supporting tankers; airlift, reconnaissance, air rescue, and combat communications units including one ANG electronic warfare and two ANG reconnaissance squadrons. Air Force Reserve units provide one-half of the aircrews and over one-third of the maintenance capability for the strategic airlift forces which will move the RDJTF.

Combat readiness and sustained fighting capabilities of these units have been increased by reallocating munitions and spare parts from other Air Force units. Our ability to respond effectively in RDJTF contingencies, however, remains limited by deficiencies in mobility, inadequate access to support facilities in potential conflict areas, and shortages of advanced munitions.

Three programs in our FY 83 budget will help alleviate these shortfalls. The $10 million in the SPF Contingency Support Package funds exercises and procures supplies and equipment to enable the SPF to operate under austere conditions. Secondly, $279 million is requested for facility construction in Southwest Asia for the RDJTF and the SPF. This construction includes improvements to runways, taxiways, parking aprons, and munitions storage areas for airfields in the area. Finally, $110 million is requested for mobility support equipment which supplies deploying units with portable maintenance shelters, electrical generation and distribution equipment, messing, billeting, water purification and distribution equipment, and refueling systems.

Strategic Projection Force (SPF)

The conventional bombing capability of our B-52s represents a powerful element of timely power projection. The SPF has been formed within the Strategic Air Command to bring this capability to bear as a component of the Rapid Deployment Force. It consists of 28 operational B-52Hs and 14 to 18 KC-135 refueling aircraft augmented by appropriate airborne and ground-based reconnaissance, intelligence, and command, control and communications elements.

The capabilities of the SPF were recently demonstrated in Bright Star '82. During this exercise last November, six B-52H SPF aircraft flew a non-stop, round-trip, mission from Minot and Grand Forks AFBs to a target area in Egypt and dropped 81,000 pounds of bombs on time and on target. This was the longest non-stop bombing mission in history, graphically portraying the ability of airpower to respond rapidly and effectively at great distances.

V. READINESS AND SUSTAINABILITY

To make full use of our investments in modern weapon systems and munitions we must make similar investments in readiness and sustainability and thus assure that our forces are ready for combat on short notice and capable of sustained military operations over a considerable period. We must have the proper mix of modern equipment and well trained, dedicated people supported by modern repair facilities, sufficient spare parts, and adequate stocks of effective munitions to achieve such readiness and sustainability.

In our FY 83 budget submission, we have continued to place priority emphasis on improving the combat preparedness and staying power of our forces. This is necessary in view of the significant deficiencies in our present ability to sustain effective combat and the very real possibility that we may be required to use military force to defend our global interests over the next few years.

Our FY 83 funding will enable us to eliminate the backlog of depot purchased equipment maintenance (DPEM), continue progress toward bringing spare parts stocks for our tactical fighters to required levels, continue to improve our inventory of modern munitions and significantly reduce the backlog in base facility maintenance. We will also be able to increase operational flying hours and train more effectively. The Air Force has made significant strides in improving the quality and realism of operational training programs. Initiatives like Red Flag and Dissimilar Air Combat Training have produced large benefits in terms of the readiness of our operational crews. Furthermore, major exercises and numerous deployments of active, Guard, and Reserve units to wartime operating bases have given operations and maintenance personnel realistic experience in the environment in which they would be likely to fight.

Operation and Maintenance (O&M) Funds

O&M funds are a key ingredient of force readiness. These funds train people, buy fuel and supplies, perform depot maintenance, maintain facilities, and pay civilian workers. The O&M share of the FY 83 program is just over 26%, or $20.5 billion, including Air Force Reserve (AFR) and Air National Guard (ANG). As shown in Figure 5, that amount is divided among numerous activities in the approximate percentages shown.

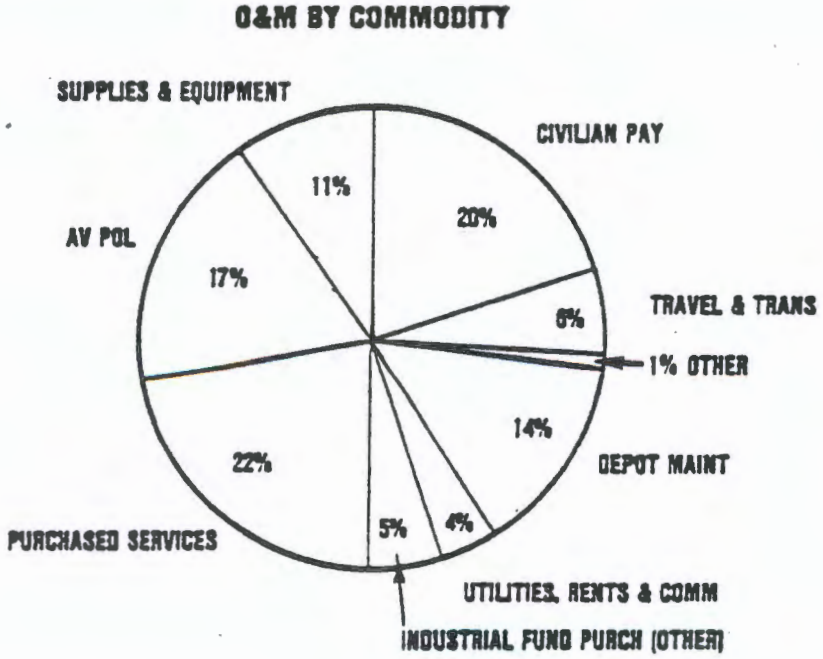

Figure 5.

Because of funding constraints and higher-than-projected inflation there was a decline in real O&M buying power between 1975 and 1980. Our FY 83 budget provides for critically needed real growth in the O&M account, although the level of that growth will, of course, be dependent upon the levels of inflation we experience.

Training

Aircrew training must be rigorous and realistic. Our crews and combat support personnel must be trained adequately to enable them to make full use of their equipment and to sustain planned wartime sortie levels under conditions of high stress and danger. Well trained people are essential to achieve an edge in combat operations.

The flying hour program is the largest of all training programs and contributes the most to readiness. Approximately 36 percent of the O&M budget supports flying operations. The FY 83 program increases flying hours three percent or 99,000 hours above the FY 82 Air Force wide level, which increased 4 percent. The most dramatic improvement is in the tactical program, which increases by 8 percent. These additional hours are needed to support a larger primary aircraft inventory, to train replacement pilots, to support training in new aircraft, and to increase training levels.

Our commitment to aggressive and realistic training will continue. Our crews are training on weapons ranges against simulated enemy defenses, practicing with allied airmen and flying in the environment in which they may fight. Red Flag exercises give crews experience in an environment as realistic as possible in peacetime. During Red Flag missions, our aircrews — including Reserve and ANG units — fly against simulated enemy aircraft and ground-based defenses, and deliver live munitions on mock enemy targets.

In addition, our training program includes deploying active, Guard and Reserve units to their wartime locations overseas where they familiarize themselves with the deployment base, fly in multi-national exercises, and gain experience in the local weather and terrain. This training may mean the difference between winning and losing in the early days of high intensity combat.

These deployments have gone smoothly. In 1980 fighters from active and air reserve units based in the US crossed the ocean 630 times on deployments and, on all but six occasions, the planned numbers of aircraft arrived in place, on time, and ready to fight. In 1981, we made 582 crossings, with only eight late aircraft. Many of these deployments were non-stop, from the units' stateside home bases to the overseas operating locations.

Since we plan to fight as part of a combined multi-service force, joint exercises with the other Services are particularly valuable. Through the JCS Exercise program, we gain experience in deploying and employing forces under joint command and control.

In November and December of 1981, we conducted the largest JCS exercise in 20 years — Bright Star '82. Designed to familiarize our units with unique problems of Southwest Asia operations, the exercise included 450 deployment and redeployment missions by transport aircraft, live ordnance deliveries by B-52s, direct deployment of A-10s and F-16s from CONUS to Egypt, and the paradrop of an Army battalion. Combined fighter training exercises were held with the Egyptian Air Force, with command and control provided by E-3As.

In addition to emphasizing exercises and operational deployments, we must also maintain an adequate pilot training base. Due to the forecast increases in undergraduate pilot training requirements in the mid-1980s and the fact that the aging, operationally deficient T-37 fleet will be numerically inadequate in 1986, we are developing the Next Generation Trainer (NGT) to replace our T-37s.

Logistics Sustainability

Logistics sustainability consists of a myriad of war reserve materiel needed at the outbreak of hostilities to sustain combat until the industrial base can be mobilized to support our forces. Over the past year, logistics requirements have been changed to reflect the judgment that we must be prepared for a prolonged conventional conflict and the consequent need to have sufficient war reserves to stay the course. Three major components of logistics sustainability are aircraft replenishment spares, munitions, and aviation fuel.

Aircraft Replenishment Spares. Adequate funding of replenishment spares is vital to peacetime readiness and wartime sustainability. There are three categories of replenishment spares: Peacetime Operating Stocks (POS), War Readiness Spares Kits/Base Level Self-Sufficiency Spares (WRSK/BLSS), and Other War Reserve Materiel (OWRM). The POS spares support peacetime training and form the baseline of spare parts to which are added stocks needed to support combat operations. WRSK/BLSS spares support initial wartime surge while OWRM spares provide wartime sustainability until mobilized industrial production can satisfy wartime consumption.

This budget continues the emphasis of the past two budgets to correct aircraft spare parts shortages. POS and WRSK/BLSS are fully funded at $2.3 billion and $.4 billion, respectively. OWRM is funded at $102 million, which will buy spares to sustain our C-5, C-141, and C-130 aircraft. While our stocks of spare parts are beginning to show improvement as a result of our priority emphasis over the past two years, production lead times of two years will delay the filling of stocks to desired levels.

Munitions. The wartime effectiveness of modern aircraft will be only as good as the munitions they carry. Our present munitions inventory is inadequate because much of this inventory consists of older, less capable munitions, and our stocks are insufficient to support a high intensity, prolonged war.

Over the past decade our research and development efforts have yielded new generations of modern munitions with much higher effectiveness. These modern munitions increase the capability and the effectiveness of each wartime sortie by destroying more targets while decreasing aircraft and aircrew attrition. During the Vietnam War, for example, we were unable to destroy the Thanh Hoa bridge with unguided bombs despite an intensive bombing effort involving 873 sorties and the loss of 11 aircraft. With the development of laser guided bombs, however, we were able to destroy the bridge in a single mission with no aircraft losses. Similarly, in attacking enemy tanks it would take 175 general purpose bombs to achieve the same results as four Maverick missiles.

The procurement of new munitions will increase our ability to achieve and maintain air superiority, an essential task in our wartime plans. To accomplish this mission, we must engage and destroy enemy air forces both in the air and at their operating bases. Attacking enemy air bases reduces the enemy's ability to generate combat sorties. Our budget request provides funds to improve both our air-to-air and airfield attack munitions.

In FY 83, we plan to add 1300 AIM-7 radar guided and 1920 AIM-9 infrared guided missiles to the air-to-air weapons inventory. We are also developing the Advanced Medium Range Air-to-Air Missile (AMRAAM) to cope with Soviet force improvements. This missile will be an autonomous, all-environment weapon which will provide our fighters with the capability to engage multiple targets, and will increase aircraft survivability due to its high speed and launch-and-leave potential. The FY 83 program continues full scale development of AMRAAM. Advance buy funding is programmed in FY 84 for initial AMRAAM procurement in FY 85.

Current inventory munitions are inadequate for the airfield attack mission. New munitions must be developed and acquired to accomplish this difficult task. As an interim solution, we are buying 350 French Matra Durandals, a 440 lb rocket assisted cratering munition, which can be delivered at low altitude and high speed. Durandal, however, requires target overflight by the delivery aircraft, exposing it to heavy enemy defenses.

The proliferation and increasing capability of Soviet surface-to-air defenses demand that we develop less-vulnerable stand-off munitions. To acquire this capability, we are working jointly with the Navy to develop the Medium Range Air-to-Surface Missile (MRASM), a conventional variant of the AGM-109 Tomahawk cruise missile. The MRASM is designed to allow our aircraft to attack runways from standoff ranges. MRASM funding in FY 83 is $42.7 million.

Gaining air superiority also requires the capability to suppress and destroy enemy surface-to-air threats to our aircraft. We are developing the Conventional Standoff Weapon (CSW), a standoff air launched missile, to work with the Precision Location Strike System for this purpose. CSW funding in FY 83 is $38.9 million. In the near term, the F-4G is the only dedicated lethal defense suppression system in our inventory. The High Speed Anti-Radiation Missile (HARM) is its primary weapon, and we plan to procure 206 additional HARM missiles in FY 83.

We are also improving our inventory of air-to-ground munitions, especially anti-armor weapons. These weapons include point kill weapons like the 30mm gun pod and Imaging Infrared Maverick missile; area weapons such as the Anti-armor Cluster Munition (ACM) and Wasp; and anti-armor mines such as Gator and Extended Range Anti-armor Mine (ERAM). Our effectiveness in attacking hardened pinpoint targets will increase with procurement of additional laser guided bombs and the GBU-15.

Munitions shortfalls require more time to correct than spares due to the limited production base and the time required to phase-in newly developed munitions. Overall, munitions funding will increase at an average of 66% per year beginning in FY 83. We have budgeted $1.6 billion in FY 83 on this effort and over the FYDP will invest $19.9 billion to improve our munitions stocks. This growth permits building the inventory of new weapons during the FYDP at a rate consistent with production capacity and inventory objectives, while maintaining a "warm" production base where possible.

Aviation Fuel. The FY 83 program fully funds aviation fuel for our peacetime flying hour program. Beginning in FY 83, the Air Force will be responsible for funding War Reserve Materiel (WRM) aviation fuel only at base level; the Defense Logistics Agency (DLA) will be responsible for funding wholesale WRM stocks for all Services. We are requesting $28 million in FY 83 to fill new base level WRM storage. DLA funding in FY 83 will procure approximately three million additional barrels of WRM fuel. A substantial shortfall in WRM stocks will persist until FY 87.

Wartime Medical Support

The Air Force medical capability which currently exists in Europe and in the Pacific was developed under the now outmoded assumption that air bases would sustain relatively few casualties during wartime. Analyses of the threat to air bases in recent years have clearly shown that our medical facilities in overseas areas, which serve us well in peacetime, will not be sufficient for the medical workload during wartime.

Because the Air Force peak casualty load is expected during the first 30 days of a conflict, the capability to provide medical care must be available in the theater when hostilities begin. With current limitations, wounded patients would suffer a 25% fatality rate, compared with 3% in Vietnam and Korea, and 5% during World War II. To provide wartime medical capability, prepositioning of medical materiel in the theater is essential.

In addition to wartime medical support in Europe, we are working to provide medical capability in the Pacific and for the RDJTF. For FY 83, an additional four 500-bed contingency hospitals, one 250-bed contingency hospital, two 250-bed aeromedical staging facilities, 13 second-echelon (emergency treatment) units, and 18 mobile surgical suites are programmed.

Defense-Wide Command, Control, and Communications Support

To make full use of our combat potential, we must integrate individual weapons systems into an effective force. This force coordination depends on secure, survivable, effective C^3 systems. The Defense-wide C^3 system includes programs and capabilities aimed at providing command and control, logistical, intelligence, navigational, and other support communications to a myriad of activities and operations in peacetime and wartime. It does not include systems dedicated to specific warfare missions.

Key programs and their FY 83 funding levels include:

- Common User Terrestrial Communications Program ($318.5 million), provides Air Force support for the operation and maintenance, upgrade and extension of the Defense Communications System worldwide;
- Common User Satellite Communications Program ($381.8 million), develops and purchases in FY 83 two Defense Satellite Communications System (DSCS) III satellites, with associated earth terminals;
- Base/Support Communications ($68.2 million), includes telephone switches, replacement radio systems, and telecommunications center equipment; and
- Communications Security Program ($164.5 million), develops and purchases telecommunications encryption devices for over 400 separate defense-wide programs.

While we have made significant progress in improving our combat preparedness, our shortfalls cannot be corrected overnight. We need to continue to devote special attention to readiness and sustainability programs over the coming years to eliminate the existing backlog of unfulfilled requirements and ensure that the new systems we field are adequately supported.

VI. SPACE OPERATIONS

Space systems are an integral part of US military capabilities. Our current satellites provide essential surveillance and weather information and serve as a critical element of our command, control, and communications systems. The dawning of the era of the Space Transportation System, commonly known as the Space Shuttle, portends an even greater utilization of space for support of military operations. During this period of rapid evolution in military space systems, both the US and Soviet Union are increasing their reliance on satellite support and the potential for conflict in space is growing. Thus, the vulnerability of US space systems and our launch capabilities are of concern and receiving urgent attention. We must develop more survivable space systems and assure ourselves continued access to space.

We are embarked on a broad program to improve our present satellite systems and introduce new capabilities. These include: the NAVSTAR Global Positioning System (GPS), which will allow accurate, common grid navigation in all weather conditions to worldwide users; the Integrated Operational NUDET Detection System (IONDS), which enhances damage and strike assessment and strategic force management by providing accurate global detection and reporting of nuclear detonation; and the Defense Satellite Communication System III (DSCS III), which improves communication support by providing more capacity, security, and jam resistance.

Space Transportation System

The Space Transportation System (STS) is a national program serving space needs of our government as well as commercial and foreign users. While the National Aeronautics and Space Administration (NASA) is responsible for Shuttle development and operations, the Air Force is DOD executive agent for military Shuttle application. This includes development and operation of the inertial upper stage, building and operating the West Coast launch site at Vandenberg AFB, and developing capabilities necessary to transition DOD payloads to the STS.

Operational planning for Air Force use of the Shuttle includes eventual transition of virtually all national security spacecraft from their current, expendable launch vehicles to the Shuttle. To ensure that critical DOD missions are launched when needed, a limited number of backup expendable launch vehicles will be acquired to hedge against the possibility of Shuttle delays or groundings.

A contingent of DOD personnel is currently in training at the Johnson Space Center (JSC), and will eventually form the cadre for the Consolidated Space Operations Center. To assure smooth integration of military operations in the NASA Mission Control Center, we will assign Air Force personnel to key positions to manage high priority DOD missions.

Air Force funding for STS is $581 million in FY 83. Funding for operation and maintenance at Vandenberg AFB, inertial upper stage procurement and operations, and Orbiter flight charges totals $353 million in FY 83. This includes procurement of 14 upper stages and funds one Shuttle flight.

Consolidated Space Operations Center

The Consolidated Space Operations Center (CSOC), to be built in Colorado Springs, will combine satellite control capabilities and DOD Shuttle operations in a single facility. It will provide increased capacity and redundant control capability in light of

the vulnerability and limited capability of the current Satellite Test Center. Shuttle control activity at the CSOC will accommodate the planned increases in use of the Space Shuttle in support of DOD missions. The Shuttle control facility at NASA's Johnson Space Center does not meet all DOD requirements for planning and conducting national security missions.

The CSOC is a central element in the ongoing efforts to develop space systems and a support structure that are reliable and efficient in peacetime and more survivable in conflict. The FY 83 CSOC program includes $32.1 million to continue design and development, $20.7 million for system procurement, and $67.7 million for construction of the first facilities.

VII. MANPOWER, PERSONNEL, AND INSTALLATIONS

Ultimately, the actual combat capability, and thus the deterrent value of the Air Force, depends on having adequate numbers of high quality, motivated, and technically competent people.

Manpower Requirements

We are continuing the growth of our active Air Force strength which we began in FY 81. These increases are necessary to support, operate, maintain, and train for modernization of our tactical forces, and for new weapon systems.

Readiness initiatives to support increased wartime equipment, munitions stocks and expanded response support are also provided in our FY 83 manpower requirements. We are increasing security and protection of nuclear weapons and are improving maintenance of the physical plant at our bases. These military increases are partially offset by reductions associated with the retirement of Titan missiles and some B-52 bombers. The decrease in our civilian work force is primarily the result of reductions to meet OSD/OMB civilian ceiling constraints.

An important factor in determining our manpower requirements is the need to have sufficient military and civilian personnel in peacetime with the proper mix of skills and experience both to accomplish peacetime training and to meet wartime combat requirements. The manpower requested in the FY 83 budget is the result of a rigorous prioritization of scarce resources; it still falls short of needed levels in various skills and specialties, particularly in our civilian work force. These shortfalls are a matter of concern and we will work with Congress to resolve them.

All Volunteer Force

Thanks to the strong congressional support in the past two years, we are meeting most of our recruiting and retention goals. However, the situation remains fragile and can easily reverse. While our present manning forecasts are much more promising than they were in previous years, shortages in critical areas persist. Specifically, we are undermanned in pilots, navigators, engineers, physicians in critical specialties, and skilled non-commissioned officers. An upturn in the economy or a lessening of congressional support would further exacerbate the problem.

To meet our future manpower requirements, we need to continue to attract and retain high quality volunteers. The task will not be easy. Congress will continue to perform a critical role by providing resources and influencing public attitudes toward national defense and the opportunities the military offers young people. This support is fundamental to maintaining the effectiveness, dignity, and status of the armed forces.

Retention and Recruitment. Retention of our high quality, trained, and experienced people remains our top priority. It is the key to Air Force readiness. As we expand the force in the 1980s, extraordinary retention will be needed to close the experience gaps that developed in the late 1970s. Additionally, we must be ready on a continuing basis since lengthy flying and technical training requirements preclude all but a limited force expansion in crisis situations. We can no longer rely on time to get ready. Our emphasis on compensation initiatives, retention, and recall programs are reflections of this need.

As we look toward the mid-1980s, we will confront serious challenges in meeting our manpower goals. In FY 83 we need 81,300 enlisted accessions, 6300 (8.4%) more than programmed in FY 82. Line officer entries for Officer Training School will increase by 1200 or 47 percent over FY 82. Further, the number of 18 year olds will decrease 14 percent by 1986, and by 1992 the population of 18 year olds will have declined by 22 percent. Competition from the private sector will hurt our ability to attract and retain quality, skilled people, particularly those in the technically-oriented fields most critical to Air Force needs.

Military Compensation. One of the key factors contributing to the dramatic improvements in recruiting and retention was the October 1981 military pay raise. For the first time in a decade, military members saw their pay essentially restored to the relative level of comparability with the private sector as had existed at the advent of the All Volunteer Force. To continue the positive recruiting and retention impact, we must act quickly and decisively to implement a predictable, visible, easily understood, stable pay adjustment mechanism and assure military members that their pay will continue to bear a reasonable relationship to pay in the private sector.

In addition, while the military compensation system is founded on providing military members a reasonable standard of living, it is also designed to help instill vital institutional values — cohesiveness, esprit de corps, and dedication to the mission above self — which are essential in military organizations. Since our mission is to be prepared to fight and win wars, our compensation system may necessarily include features different from those normally found in the private sector; e.g., housing and food allowances, stable retirement system, medical care, etc. The current pay and allowances system with its unique system of institutional supports has been tested in peace and war; it works esceptionally well when allowed to function as designed, and it should be continued.

Permanent Change of Station (PCS) Reimbursements. A major factor affecting retention is the inadequate reimbursement of members for costs they incur with moving from one base to another. What used to be a routine event, often looked forward to as a new, exciting adventure, has become a major career decision for many of our people because of the significant out-of-pocket expenses involved in relocation. The impact of this problem is being strongly felt in retention, where a recent survey showed that nearly one in four eligible service members would retire in lieu of any move.

Ironically, military people, whose only choice is to accept transfers or leave the service, must absorb these financial penalties and incur significant reductions in their standard of living as a condition of service. In 1979, we found service members spent over $1 billion of their own money paying for government-directed moves. The typical staff sergeant moving in 1980 paid $1250 out of his own pocket — more than his entire year's pay raise — to cover costs not reimbursed by the government.

In December 1980, the GAO highlighted the serious inequities and inadequacies of military travel reimbursements and urged the DOD and Congress to take immediate steps to rectify the situation. In documenting their case, the GAO noted that a federal civilian employee could receive up to $4300 (excluding homeownership costs) more than a comparable military member for a move of only 600 miles. On a voluntary cross-country move, the federal civilian employee could receive over $13,300 in reimbursements, while military members making the same move would receive less than $2,200, even after all of the FY 81 and 82 improvements are added.

Congress and the Department of Defense have done several things to improve this situation in the past year, and this budget contains further improvements; however, much more needs to be done. A major setback occurred during final action on the FY 82 DOD Appropriations Act when the reimbursement provided to enlisted members for temporary duty or permanent change of station orders was arbitrarily reduced by $4.50 per day, further reducing the already inadequate travel reimbursements. Reversal of this decision, funding for the new permanent change of station authorities enacted last year, approval of the requested new initiatives for increased mileage allowances for members and dependents, and higher household goods weight allowances must be accomplished or we will continue losing the experienced people we most need to keep.

Military Retirement Program. Another critical element in the retention equation is the military retirement system. In a recent survey, Air Force members indicated the single most important factor in career decisions was the retirement program. Even rated officers ranked "chance to fly" as distinctly second in importance.

Despite its significant influence on career retention, the retirement program has come under repeated attack. Although no major restructuring of the retirement system has occurred, several changes have been made which substantially erode the value of the retirement system. These changes included elimination of the semiannual adjustment procedures, institution of a high-three averaging technique for new members, and modification of the method used to calculate the service credit multiplier.

In recent months, additional proposals have been offered that would further degrade the system. These proposals have heightened member apprehension. These changes, if enacted, would abrogate an Administration commitment to oppose changes to the retirement system that would adversely affect members presently on active duty, reinforce the perception that retired pay is fair game for continual change, and do irreparable damage to the retirement program as a retention incentive.

In the final analysis, because the Services are still suffering from shortages of skilled officers and enlisted members in critical combat, operational, and sortie generating skills, we can ill-afford to weaken the retention gains now accruing from the compensation improvements of 1980 and 1981. To preserve the integrity of the retirement system and leadership credibility, changes to the retirement system should be predicated on valid personnel management and force structure requirements and should "grandfather" those currently retired or now on active duty.

Quality of Life. The military profession places unique demands on its people and families. Terms of enlistment, extended tours abroad, 24-hour availability, frequent moves, family separation and compliance with military standards, discipline, and law are institutional demands which are an integral part of the military's prime mission -- combat operations.

Service in the military is not predicated on a formal written contract and rules of negotiation (e.g., union grievance, arbitration) as in the civilian sector. The military member accepts, as a condition of service, that the institution will provide for job and financial security, and family needs and assure that living conditions are reasonably comparable to civilian life.

The military services provide for these needs through commissaries, exchanges, housing, dining halls, medical and dental care and retainer pay in the form of retirement entitlements. Experience has shown that any attempt to reduce or eliminate these institutional programs has a severe, detrimental impact on recruiting, retention, and

readiness, and undermines those values which we know from experience are essential for success in battle. The Air Force must demonstrate that our people's quality of life needs will be taken care of so they can dedicate full attention to mission requirements.

Educational Incentives Program. Education has historically been a part of the institutional support structure and one of the major incentives for enlistment and retention of quality recruits. A well designed, effective education program could pay for itself by appealing to high quality people, fostering retention and, thereby reducing personnel replacement costs and improving experience and readiness.

Unfortunately, there now exists no effective education incentives program to meet the difficult recruiting and retention challenges. The Veterans' Educational Assistance Program (VEAP) has, by its contributory nature and low benefit, proven to be a poor recruiting incentive. After five years under VEAP, only 6 percent of Air Force eligibles are participating, despite concerted outreach efforts.

The Air Force supports a new, effective educational incentives program designed to help us meet our requirements for skilled, experienced manpower.

Health Benefits. Health care is a major factor in the career decisions of many Air Force members. Serious deficiencies in our present program affect both our wartime readiness posture and the peacetime morale of Air Force people. Dependent dental care has become an important element in private sector compensation packages, and a dependent dental care program is essential if the military health care system is to continue as an effective recruiting and retention incentive. In an effort to undergird the incentive value of military health care and overcome one of its greatest deficiencies, DOD is developing dependent dental care legislation for your consideration during this session. Correcting health care deficiencies during peacetime enhances our wartime capability, just as meeting wartime medical readiness manpower requirements will, in most cases, significantly improve peacetime access to health care for all beneficiaries. Improving our peacetime capability also saves Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) dollars, since corresponding care in military treatment facilities can be provided at lower cost.

Specifically, we seek to expand our construction program to provide more adequate hospitals and clinics. We seek to increase our support staffs so that health care providers can be used more effectively.

AF Families. The families of Air Force people face demands not routinely associated with civilian life. These include frequent moves, repeated separations, long and unusual hours and hazardous missions. Most Air Force families are coping well.

Studies show that the attitudes of family members and their satisfaction with Air Force life are major factors in career decisions and member attitude, morale, and productivity. Recognizing this the Air Force is now opening base-level Family Support Centers to provide centralized, one-stop service to family members. Areas in which these centers will be involved include information, referral and coordination of family service providers and resources; PCS relocation assistance; spouse employment information, aid for families in crisis, support during family separation, financial management education; programs for special needs families; and family development education.

Four prototype Centers began operation in late 1981. This year's budget includes twelve additional Centers, with the program expanding by 25 per year thereafter. If

ongoing evaluation confirms that this program is effective, the Air Force will open Centers at 124 major installations by FY 87.

Executive Level Pay Cap. The recent legislative action concerning executive level pay is a welcome step. Reducing the severe impact of inflation will enhance the motivation and retention of executive level personnel. In addition, it should help attract qualified replacements for the large number of critically important top management positions which previously had remained vacant. However, more needs to be done.

It is vitally important to restore executive level pay integrity. In the interest of fairness to the individual and for the good of the institution there must be realistic compensation differentiation proportional to position and responsibility. This principle must be applied throughout the federal government — to both civilian and military personnel.

General Officer Reduction. The Department of Defense has introduced an initiative to postpone, until FY 83, the requirement to reduce the authorizations for flag and general officers from 1119 to 1073. The Air Force believes any reductions should be deferred pending enactment of comprehensive general and flag officer legislation.

Installations

The Air Force is unique among the military services because we plan to fight from the bases we operate in peacetime. Since 1960 we have reduced our base structure by 47%, from 253 to 133 major installations. The result is a streamlined, efficient, and responsive base structure. Further reduction would not be prudent since it would eliminate the minimum flexibility necessary to support future weapon systems and contingencies. We do not anticipate any major increase in this structure in the future, although we must expand slightly to accommodate the GLCM in Europe.

Now, during the decade of the 80s, we must modernize the facilities on our bases to bring them up to a level consistent with the needs of our modern weapon systems and the people who operate and support those systems. This is essential to readiness and sustainability. We cannot operate and maintain our weapon systems at peak effectiveness from inadequate facilities. We cannot recruit and retain quality personnel if we cannot offer them quality facilities in which to live and work. Our FY 83 request for $5.3 billion supports our three key facility programs: Real Property Maintenance, Military Construction, and Military Family Housing.

The replacement value of the Air Force physical plant is $92 billion in constant FY 81 dollars. The average age of our facilities is 26-30 years, with 60% of them greater than 25 years old. This is the age when deterioration accelerates, especially if the facilities were constructed for short-term support of a war effort as many of ours were. The design life of many components of our facilities has been exhausted at the 25-year point and major expenditures are required for maintenance and repair or replacement. We can no longer afford to "patch" what we have and make do for another year.

Real Property Maintenance Activities (RPMA). RPMA include maintenance, repair, and minor alteration of existing facilities and provision of utilities and contract services in support of those facilities. Our budget to accomplish these activities is broken down into six categories:

	$ Millions		
	FY 81	FY 82	FY 83
Projects by contract	415.2	563.5	474.8
Supplies	252.5	232.9	260.6
Utilities	459.8	544.0	542.6
Contractual Services	247.1	284.2	294.3
Civilian Personnel	504.6	508.8	547.7
Other	106.9	109.8	122.6
Total	1986.1	2243.2	2242.6

Approximately 13% of Air Force O&M is spent for RPMA; however, about 80% of the RPMA budget is fixed — in the sense that it goes toward funding our "must pay" bills, those that cannot be reduced significantly in the short term against a given mission capability. Thus facility projects by contract, our major controllable program, has been impacted considerably since 1975, resulting in a growing backlog of maintenance and repair (BMAR). We have reversed this trend, and we are projecting in FY 82 the first decrease in the BMAR since 1975.

Based on known requirements and given inflation rates, our BMAR will fall below the $300 million ceiling mandated by Congress by FY 83. However, this plateau represents a considerable shortfall over the required manageable level which is less than $100 million. Our FY 83 request is essential for maintaining our progress towards this manageable level.

Military Construction Program (MCP). The MCP provides new facilities to support new missions and replacement facilities to support existing missions. Our MCP request is broken down into five categories based on the function supported.

	$ Millions		
	FY 81	FY 82	FY 83
Systems Acquisition	434.4	430.4	769.1
Readiness	110.0	374.6	403.5
Quality of Life	98.7	228.5	279.1
Upgrading the Workplace	99.8	171.8	394.8
Special Milcon	194.3	424.9	235.3
Total	937.2	1630.2	2081.8

The systems acquisition category contains major investments in support of new systems such as the M-X missile, ALCM, GLCM, STS, CSOC and the Aeropropulsion Test Facility.

Systems acquisition in FY 83 includes an increment of $42 million for the Aeropropulsion Systems Test Facility (ASTF) — a key national asset. We recognize the severity of the cost growth problem associated with this project, and we are applying extraordinary management attention to ensure that no further growth occurs.

Also in this category are facilities for the Space Transportation System — a national program developed by NASA. Our critical need for timely, defense-related space missions dictated that we construct facilities at Vandenberg AFB concurrently with NASA development of the Shuttle itself. This concurrency has resulted in large cost overruns for planned facilities and additional facility requirements unforeseen when the program was originated. Our FY 83 request for $82.2 million funds identified overruns and additional requirements.

A third key element of this category is $85.4 million for facilities in support of GLCM in Europe. These facilities are must-buy items to meet our initial operational capability commitment to NATO.

The readiness category includes beddown facilities for the RDJTF and various operational facilities in Europe and the Pacific such as airfield pavements, munitions storage and fuel storage.

It would take unprecedented military measures to repel a Warsaw Pact invasion of Europe. To generate the necessary air effort we would have to deploy a significant portion of our CONUS based tactical air units to Europe. However, our existing airfields in Europe would be unable to accommodate the necessary numbers of reinforcement aircraft and the cost of constructing more bases is prohibitive. Without additional airfields our ability to wage conventional war in Europe would be in doubt.

Fortunately, our European allies have agreed to allow joint use in wartime of their airfields, including shops, dining halls, warehouses and dorms. However, since these Collocated Operating Bases (COBs) are not sized for additional aircraft, our program provides for the necessary added fuel and munitions storage and expanded dispersal pavement. At this time only 6 of 73 identified COBs have these minimum essential facilities (MEF).

The readiness category for FY 83 includes $28.6 million requested to prefinance our COB MEF program. To date, the Air Force has recouped from NATO about $190 million of the nearly $382 million previously prefinanced. We are not satisfied with this recoupment rate and are continuously striving to recoup more. The facilities to be constructed at the COBs, coupled with the facilities we expect to realize from NATO infrastructure, represent the absolute minimum we must have in order to beddown our reinforcement aircraft effectively in case of European mobilization.

The last three categories — quality of life, upgrading the workplace, and special military construction — contain the majority of the facilities where our people live, work, and play such as dorms, maintenance shops, and gymnasiums. Since 1975, sufficient funds have not been available for these categories after higher priority system acquisition and readiness projects have been satisfied. A $7.5 billion backlog of projects developed. Our facility modernization initiative, begun in 1982 and continued in 1983, reverses this trend. Through this initiative we will reduce our backlog of modernization projects to a manageable level of $2.0 billion by 1988.

Military Family Housing. Underfunding of the military family housing account during the late 1970s and new mission activations, principally in Europe, left the Air Force with huge backlogs of maintenance, improvement, and new construction. These backlogs adversely affect the living conditions of our people. Our budget through the 1980s addresses this problem.

	$ Millions		
	FY 81	FY 82	FY 83
Construction	34	39	100
Improvements	33	60	79
Leasing	35	36	54
Operations	272	296	341
Maintenance	250	297	357
Debt Payment	12	9	7
Total	636	737	938

Key initiatives include the elimination of the improvements backlog by FY 89, the reduction of the maintenance backlog to an acceptable level by FY 89 and about a 50 percent reduction in the 20,000-unit deficit of new housing by FY 89. A combination of improvement and maintenance monies is used to modernize the aging (most 25 years or older) inventory of 142,000 houses. Improvements include amenities normally found in private housing. Modernization of existing units is necessary to remain competitive in the job market as we continue the all volunteer force. At present too many of our people are unsuitably housed in private sector housing, especially overseas. This has an adverse impact upon force morale and retainability which subsequently adversely impacts force readiness.

VIII. MANAGEMENT INITIATIVES

We are firmly committed to the most cost-effective use of every defense dollar. This is due not only to the increasing pressure for better management of all governmental activities, but also because our share of the Gross National Product has declined drastically from the early 1950s. Although our tasks have increased in the more dangerous world in which we find ourselves, our share of the nation's resources has declined.

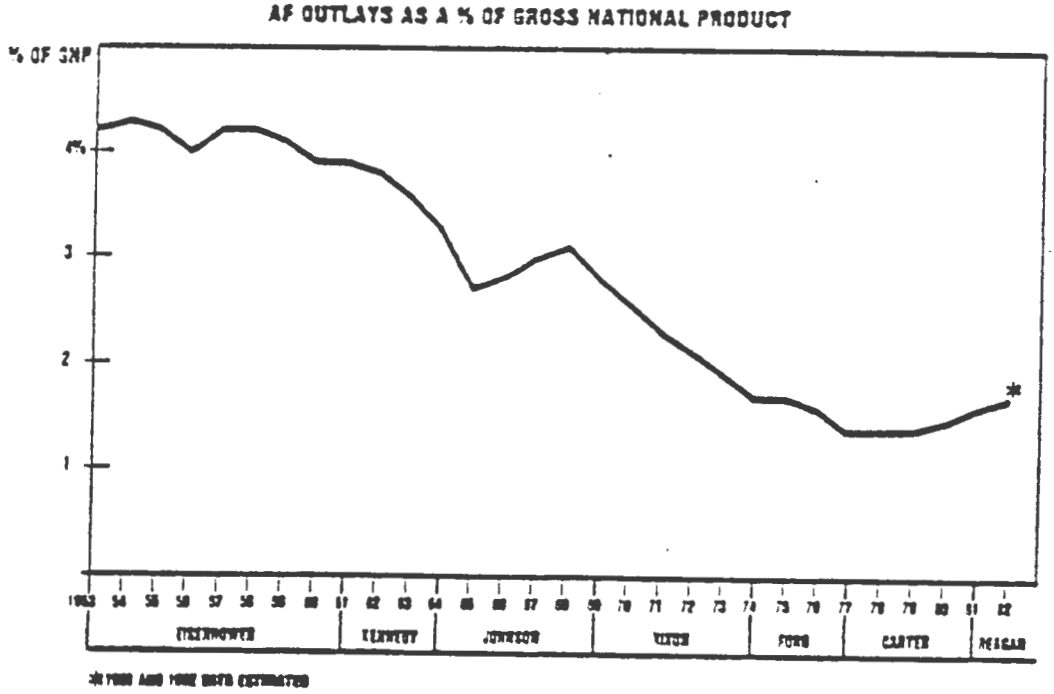

Figure 6.

In support of the Administration's efforts to enhance productivity and realize greater economies and efficiencies in defense operations, the Air Force has undertaken a range of initiatives under the Integrity and Management Improvement Program. Emphasis from the top down has been placed on these actions as a means of ensuring that the best use is made of every defense dollar. Results have been gratifying, with over one billion dollars in savings identified in FY 81 over a wide range of procurement, investment, engineering, and day-to-day activities.

Integrity and Management Improvement Program

Our overall goal is to produce the most effective combat ready force possible. We realize an organization the size of the Air Force requires intensive daily management effort to conduct business efficiently. We support the Administration's goals for greater economy and efficiency.

Aerospace defense, by its very nature, is a high technology endeavor. It is research and development intensive. To ensure we can meet future threats, we often work on the leading edge of technology, thus making accurate cost predictions particularly difficult.

Because of the importance of effective, aggressive, and economical programs, we recently began the Integrity and Management Improvement Program, aimed at those targets. This program will serve as an umbrella for many existing oversight, cost awareness, and incentive programs, and will add new management, emphasis and cross feed to obtain efficiencies at all levels of the Air Force.

It covers five major segments: (i) fraud, waste, and abuse, (ii) productivity program, (iii) economies and efficiencies program, (iv) general management initiatives, and (v) acquisition improvement.

Fraud, Waste and Abuse (FWA). Using our audit, investigative, and inspection resources as tools, we have concentrated our efforts on prevention and detection of FWA. This is a comprehensive compaign involving the Air Force Inspector General, Air Force Audit Agency, and the Air Force Office of Special Investigations, who will work in concert collecting data to track FWA investigations.

To provide an open channel for anyone observing instances of FWA, the FWA hotline was established in August of 1981. Thus, potential cases can be brought to the attention of Air Force leadership and investigative agencies quickly and with a minimum of effort by observers of FWA.

Productivity Program. We have many productivity-related programs which increase our efficiency and save money. Productivity plans by major commands and bases set effectiveness and efficiency goals. Formal programs provide alternative funding and individual rewards to those developing and applying innovations.

Specific programs, and the life cycle savings from FY 81 initiatives, include Productivity Investment Funding which will save us more than $39 million; the Fast Payback Capital Investment Program, which is saving us over $30 million; the Suggestion Program, which has saved $107 million; the Productivity, Reliability, Availability and Maintainability (PRAM) Program effort, saving us over $409 million; and the Value Engineering program, which saved $390 million in FY 81 alone. Much of these savings come through cost avoidance.

Economies and Efficiencies Program. This activity serves as a catalyst for collection, verification, crossfeed, and publicity. Drawing from activities at all levels, we have compiled a data base of suggestions, new methods, better procedures, and ideas that have paid off somewhere in the Air Force. These economies and efficiencies are publicized, and crossfed through the Air Force Cost and Management Analysis office network to field commanders and managers. Savings from this program will exceed $37 million on four depot-level activities alone.

General Management Initiatives. While each of the other program segments is relatively specialized in nature, our general management initiatives provide a central framework dedicated to overall management and system improvement. Some of the programs aimed at economy or efficiency include our "Total Force" policy, reengining the KC-135, development of fighter aircraft which are more fuel efficient than their predecessors, and the fuel savings advisory system (FSAS).

One of our best economies results from the "Total Force" policy. The Air National Guard and Air Force Reserve represent one of the most cost-effective investments. They have a pool of experienced personnel able to maintain their combat proficiency while participating on a part-time basis. These units provide a significant share of our overall forces. (See Table B for contributions of Air Reserve Forces to Total Force.)

In 1973, the Air Force used 131 million barrels of aviation fuel. By 1980, we had reduced consumption by 34%. The program to reengine the KC-135 tanker will decrease its fuel usage by 25%, a savings of more than 110 million gallons of jet fuel annually. Our newer fighters, the F-15, the F-16 and the A-10 use, respectively, 13%, 57% and 66% less fuel than the older F-4.

Additional fuel savings will result from installation of the FSAS aboard KC-135 aircraft. Seventeen RC-135s now have operational FSAS providing performance information to the flight crew so they can reduce fuel consumption through better engine power settings and aircraft configuration. An overall fuel savings of 3% is estimated. FSAS will be installed on the C-5 and C-141 fleets with an additional estimated fuel savings of 3 to 4%.

Acquisition Management. As part of the overall DOD program to improve the weapon system acquisition process, the Air Force has developed specific actions which will result in significant savings in new weapon systems. These actions are in four main categories: reducing acquisition costs, shortening acquisition time, improving selection and management process, and improving support and readiness.

Multi-year contracts are one of the major efforts in this area. These contracts produce direct and related savings in contract administration because they avoid yearly contractual processes and retain contractors and quality control procedures over several years.

Examples of multi-year contracts and their related savings include the F-16, Tropo Scatter Radio, and Defense Meteorological Satellite programs. In the case of the F-16, we estimate saving $259.5 million over a four-year period beginning in 1982. The radio contract has estimated savings of $18.7 million beginning in 1981. In the Defense Meteorological Satellite program, we will save $49.3 million through multi-year procurement of four satellites and primary sensor units beginning in FY 83. This multi-year approach includes full funding with advance buy to produce economic order quantity purchase in FY 83.

In addition to these savings, multi-year contracts contribute to industrial base stability as they maintain production capacity, particularly in second- and third-tier companies. We are investigating other programs for multi-year contracting in FYs 83 and 84.

New warranty provisions for product performance have been added to government contracts. We have also increased emphasis on post-contractor performance reliability and maintainability and have solicited comments from industry on how to obtain more cost effective products.

In addition to $94.2 million for facilities repair, expansion, and modernization and for industrial preparedness efforts, we are requesting $121.1 million for the MANTECH and technology modernization programs which are designed to reduce costs and lead times, increase industrial capability, and secure more efficient and modern manufacturing systems.

In summary, while we believe Air Force programs are sound and aggressive, we will pursue better methods and even more savings in FY 83. Our roles and missions demand no less than our best efforts.

TABLE A

Soviet Military Production

	1976	1977	1978	1979	1980
ARMY MATERIEL					
Tanks	2,500	2,500	2,500	3,000	3,000
T-55	500	500	500	500	—
T-64	500	500	500	500	500
T-72	1,500	1,500	1,500	2,000	2,500
T-80				Trial Output	Trial Output
Other Armored Vehicles	4,500	4,500	5,500	5,500	5,500
SP Field Artillery	900	950	650	250	150
Field Artillery	900	1,300	1,500	1,500	1,300
Multiple Rocket Launchers	500	550	550	450	300
SP AA Artillery	500	500	100	100	100
Towed AA Artillery	500	250	100	—	—
Infantry Weapons (Thousands)	250	350	450	450	400
NAVAL SHIPS					
Submarines	10	13	12	12	11
Major Combatants	12	12	12	11	11
Minor Combatants	58	56	52	48	52
Auxiliaries	4	6	4	7	5
MISSILES					
ICBMs	300	300	200	200	200
IRBMs	50	100	100	100	100
SRBMs	100	200	250	300	300
SLCMs	600	600	600	700	700
SLBMs	150	175	225	175	175
ASMs	1,500	1,500	1,500	1,500	1,500
SAMs	40,000	50,000	50,000	50,000	50,000
ATGMs	30,000	35,000	35,000	40,000	50,000
AIRCRAFT					
Bombers	25	30	30	30	30
Fighters/Fighters-Bombers	1,200	1,200	1,300	1,300	1,300
Transports	450	400	400	400	350
Trainers	50	50	50	25	25
ASW	5	10	10	10	10
Helicopters	1,400	900	600	700	750
Commo/Utility	125	100	100	100	100

TABLE B

AIR RESERVE FORCES
CONTRIBUTION TO TOTAL FORCE
FY 1983

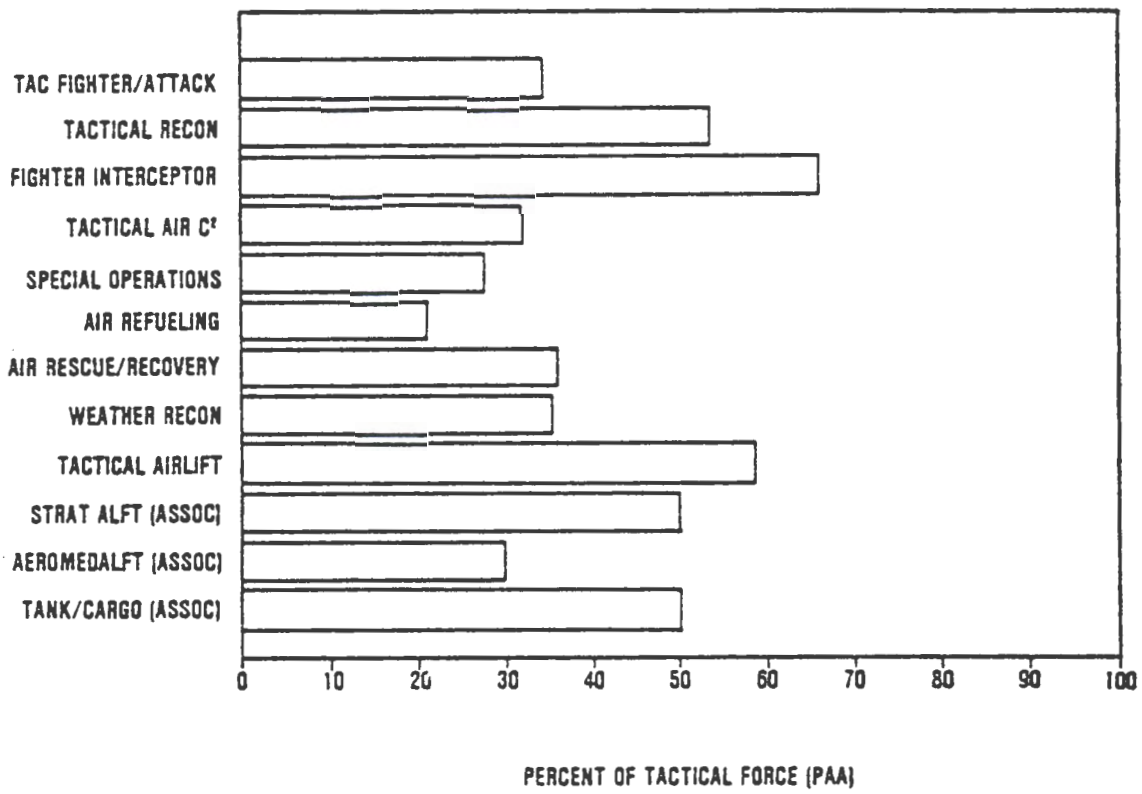

TABLE C

Total Obligational Authority (TOA)
(Millions of $)

	FY 81	FY 82	FY 83
RDT&E	7,133	8,876	11,220
Procurement			
Aircraft	10,298	14,022	17,757
Missile	3,333	4,574	6,828
Other	3,148	5,407	5,845
Military Construction	1,049	1,773	2,224
Military Personnel	10,576	11,055	12,927
Operation and Maintenance	16,860	18,441	20,473
Stock Fund	28	79	161
Family Housing*	0	0	938
TOA	52,425	64,227	78,373
Legislative Contingencies	0	1,530	1,131
Total TOA**	52,425	65,757	79,504

*Family Housing included in TOA effective FY 83.
**Totals may not add due to rounding.

TABLE D

APPROPRIATION
PERCENT OF TOA
(THEN YEAR DOLLARS)

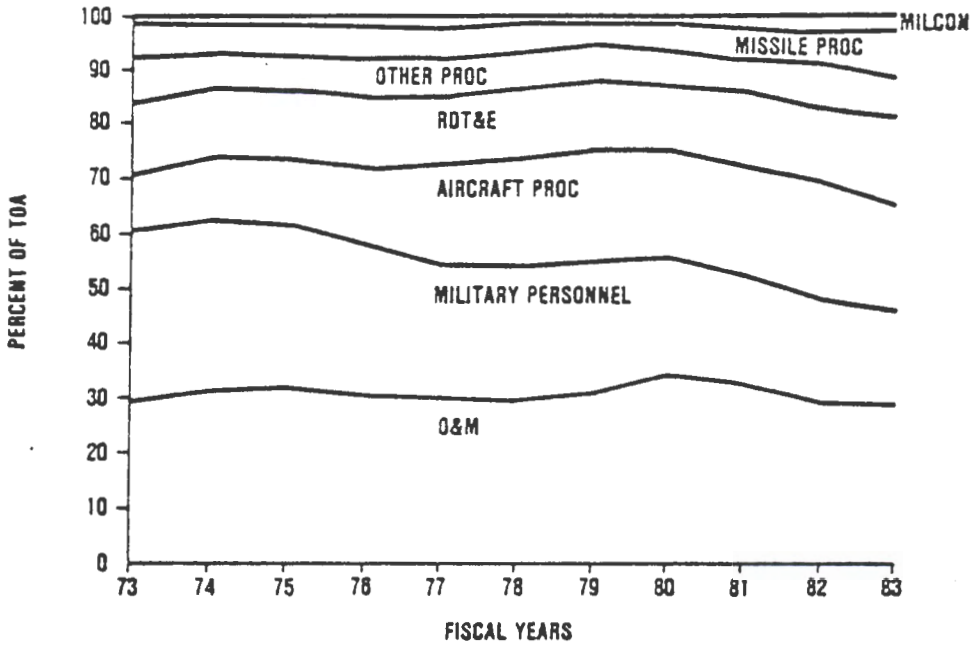

TABLE E

Personnel End Strengths
(In Thousands)

	FY 81	FY 82	FY 83
Active Duty Military	570.3	580.8	600.0
Civilian			
Direct Hire	232.9	234.3	230.2
Indirect Hire	13.2	13.4	13.1
Selected Reserve			
AFR	61.6	63.7	66.6
ANG	98.3	100.1	101.8

Personnel Costs
(Millions of $)

Active Duty Military	9,913	11,578	12,031
Civilian	5,327	5,493	5,754
Selected Reserve			
AFR*	277	328	351
ANG	386	480	545
AF Total	15,903	17,879	18,681

*Excludes ROTC and Health Professions Scholarship Programs which are not included in the Air Force Reserve program.

TABLE F

Selected Key Programs
(Millions of $)

	RDT&E	PROC	FY 83 (QTY)**	TOTAL	
Aircraft (3010) (3600)					
B-1B	754	3,868	(7)	4,622	
A-10	6	357	(20)	363	
F-15	125	1,602	(42)	1,727	
F-16	86	1,959	(120)	2,045	
E-3A (AWACS)	79	166	(2)	245	
TR-1	0	157	(4)	157	
B-52 (Mods)	122	555		677	
KC-135 (Reeng)	29	490		519	
C-5 (Wing Mod)	7	190		197	***
C-5B	1	800	(2)	801	
KC-10	0	790	(8)	790	
Missiles (3020) (3600)					
ALCM	187	665	(440)	852	
GLCM	29	520	(120)	549	
M-X/Adv Tech	2,759	1,446	(9)	4,205	
AIM-7/9	-	314	(3,220)	314	
IIR Maverick	5	343	(2,560)	348	
Space Systems (3020) (3600)					
NAVSTAR GPS*	123	102		225	
Space Shuttle	356	136		492	
DSCS	53	193		246	
AFSATCOM	51	29		80	
Def Sup Prog	120	649		769	

* Includes space, control, and user equipment segments.

** Procurement cost excludes initial spares.

*** Plus $97 million in O&M for kit installation.

TABLE G

Research, Development, Test and Evaluation (RDT&E)
by Category
(Millions of $; funds in parentheses show funding for selected major systems)

	FY 81	FY 82	FY 83
STRATEGIC PROGRAMS	2,720	3,579	4,972
B-52 Squadrons	(122)	(96)	(122)
ASMS	(97)	(100)	(50)
ALCM	(109)	(104)	(187)
AFSATCOM	(26)	(80)	(51)
M-X	(1,492)	(1,963)	(2,759)
MM Improv (Incl MK-12A)	(53)	(20)	(13)
B-1B	(260)	(471)	(754)
TACTICAL PROGRAMS	1,449	1,752	2,201
GLCM	(108)	(80)	(29)
CASWS	(47)	(25)	(5)
F-16	(42)	(57)	(86)
AWACS	(62)	(52)	(79)
INTELLIGENCE AND COMMUNICATIONS	975	1,321	1,436
Defense Sat Comm System	(35)	(40)	(53)
NAVSTAR GPS	(126)	(165)	(123)
TECHNOLOGY BASE	614	621	707
ADVANCED TECHNOLOGY DEVELOPMENT	284	373	472
MANAGEMENT AND SUPPORT	1,092	1,231	1,432
Space Shuttle	(246)	(266)	(356)
Space Booster	(29)	(19)	(15)
TOA*	7,133	8,876	11,220

*Totals may not add due to rounding.

TABLE H

Missile Procurement
(Number of missiles in parentheses)
(Millions of $)

	FY 81		FY 82		FY 83	
Minuteman, Titan and C^3		140		111		0
M-X					(9)	1446
GLCM	(11)	148	(54)	328	(120)	.520
ALCM	(480)	579	(440)	605	(440)	735
Sidewinder	(1280)	102	(1800)	132	(1920)	115
Sparrow	(1050)	177	(1025)	211	(1300)	199
Maverick			(490)	231	(2560)	343
HARM			(136)	89	(206)	160
Rapier		90		139		99
Target Drones		2		17		40
Modifications		113		81		160
Spares & Repair Parts		158		210		274
Space Programs		530		841		1297
Special Programs		1312		1572		1484
Industrial Facilities		19		25		27
TOA*	(2976)	3333	(3945)	4574	(6555)	6828

*Totals may not add due to rounding.

TABLE I

Aircraft Procurement
(Number of aircraft in parentheses)
(Millions of $)

	FY 81		FY 82		FY 83	
B-1B			(1)	1622	(7)	3868
A-7	(6)	103				
A-10	(60)	532	(20)	230	(20)	357
F-5	(0)	7	(3)	23	(3)	29
F-15	(42)	952	(36)	1103	(42)	1602
F-16	(180)	1853	(120)	1879	(120)	1959
MC-130H				27		0
KC-10A	(6)	312	(6)	335	(8)	790
C-5B				270	(2)	800
E-3A (AWACS)	(2)	243	(2)	244	(2)	166
TR-1	(4)	98	(5)	114	(4)	157
C-130H	(6)	69	(8)	110		
EDS					(2)	5
NGT						4
UH-60A	(5)	27	(6)	33		
ALCA/ARIA Control Acft	(7)	24				
Modifications		1865		2115		2600
Aircraft Spares & Repair Parts		2710		3899		3657
Support Equip & Facilities		1502		2019		1767
TOA*	(318)	10298	(207)	14022	(210)	17757

*Totals may not add due to rounding.

TABLE J

Other Procurement
(Millions of $)

	FY 81	FY 82	FY 83
Munitions and Associated Equip	344	1,081	854
Vehicular Equipment	158	331	350
Electronics & Telecommunications	709	1,105	1,427
Other Base Maint & Support and Selected Activities	1,937	2,889	3,213
TOA*	3,148	5,407	5,845

*Totals may not add due to rounding.

TABLE K

Operation & Maintenance
(Millions of $)

	FY 81	FY 82	FY 83
Strategic Forces	2,876	3,193	3,085
General Purpose Forces	3,220	3,597	3,833
Intelligence & Communications	1,005	1,150	1,417
Airlift	1,045	1,179	1,202
Central Supply & Maintenance	4,689	4,891	6,034
Training, Medical and Other	1,548	1,763	1,978
Administration & Assoc Activities	354	342	389
Operation & Maintenance/ Guard & Reserve	2,118	2,318	2,528
Support of Other Nations	5	8	7
*TOA	16,860	18,441	20,473

*Totals may not add due to rounding.