(11)

DEPARTMENT OF THE AIR FORCE

JUSTIFICATION OF FISCAL YEAR 1991 BUDGET ESTIMATES

SUBMITTED TO CONGRESS JANUARY 1990

Aircraft Procurement, Air Force

A

DEPARTMENT OF THE AIR FORCE
AIRCRAFT PROCUREMENT, AIR FORCE
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STATEMENT "A" per Mr. M. Fritsch
SAF/FMBPC
TELECON 2/21/90 CG

AIRCRAFT PROCUREMENT, AIR FORCE

For construction, procurement, and modification of aircraft and equipment, including armor and armament, specialized ground handling equipment and training devices, spare parts, and accessories therefor; specialized equipment; expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land, for the forgoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes including rents and transportation of things; [$15,679,242,000] $13,718,650,000, to remain available for obligation until September 30, [1992: Provided, That none of the funds provided in this Act may be obligated on B-1B bomber contracts which would cause the Air Force's $20,500,000,000 cost estimate for the B-1B bomber baseline program expressed in fiscal year 1981 constant dollars to be exceeded] 1993, of which $232,021,000 shall be available for the Air National Guard and Air Force Reserve and, in addition, for the F-15 aircraft program, to be derived by transfer from the following appropriations in the amounts specified:

"Aircraft Procurement, Air Force, 1990/1992", $181,700,000;
"Missile Procurement, Air Force, 1990/1992", $131,000,000;
"Other Procurement, Air Force, 1990/1992", $70,000,000;
"Research, Development, Test, and Evaluation, Air Force, 1990/1991", $100,000,000;
"Research, Development, Test, and Evaluation, Defense Agencies, 1990/1991", $16,050,000: In all, $498,750,000, to be available for the same purposes as this appropriation and for the time period of the appropriation from which transferred. (10 U.S.C. 2271-79, 2353, 2386, 2663, 2672, 2672a, 8013, 8062, 9501-02, 9532, 9741-42; 50 U.S.C. 451, 453, 455; Department of Defense Appropriations Act, 1990; additional authorizing legislation to be proposed.)

Aircraft Procurement, Air Force
Program and Financing (in Thousands of dollars) SUMMARY

Identification code 57-3010-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
	1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
Program by activities:						
Direct program:						
00.0101 Combat aircraft	7,698,044	6,805,610	7,721,097	5,372,506	7,851,899	7,015,599
00.0201 Airlift aircraft	995,571	1,632,704	1,988,315	910,224	1,192,403	2,123,205
00.0301 Trainer aircraft	9,525	144,400	185,155		109,760	157,395
00.0401 Other aircraft	94,802	51,104	38,796	24,954	101,612	66,817
00.0501 Modification of inservice aircraft	2,332,269	2,563,536	1,763,591	2,301,342	2,764,603	2,305,209
00.0601 Aircraft spares and repair parts	2,922,258	3,033,143	1,391,057	2,900,875	2,218,737	1,732,873
00.0701 Aircraft support equipment and facilities	1,598,103	1,129,988	1,129,389	2,205,530	1,818,271	1,235,978
00.9101 Total direct program	15,650,572	15,360,485	14,217,400	13,715,431	16,057,285	14,637,076
01.0101 Reimbursable program	280,561	247,000	247,000	231,351	443,368	247,000
10.0001 Total	15,931,133	15,607,485	14,464,400	13,946,782	16,500,653	14,884,076
Financing:						
Offsetting collections from:						
11.0001 Federal funds(-)	-106,502	-51,024	-9,963	-61,339	-51,024	-9,963
13.0001 Trust funds(-)	-173,701	-195,976	-237,037	-182,036	-195,976	-237,037
14.0001 Non-Federal sources(-)	-358			-350		
17.0001 Recovery of prior year obligations				-312,224		
Unobligated balance available, start of year:						
21.4002 For completion of prior year budget plans				-5,727,387	-7,759,638	-6,950,858
21.4003 Available to finance new budget plans	-112,087		-181,700	-112,087		-181,700
21.4009 Reprograming from/to prior year budget pla	-227,488	84,388				
22.4001 Unobligated balance transferred to other acc	140,319	-84,388		140,319	-84,388	
Unobligated balance available, end of year:						
24.4002 For completion of prior year budget plans				7,759,638	6,950,858	6,531,182
24.4003 Available to finance subsequent year budge		181,700			181,700	
25.0001 Unobligated balance lapsing	114,868			114,868		
39.0001 Budget authority	15,566,184	15,542,185	14,035,700	15,566,184	15,542,185	14,035,700
Budget authority:						
40.0001 Appropriation	15,922,499	15,679,242	13,718,650	15,922,499	15,679,242	13,718,650
40.0004 Reduction pursuant to P.L. 100-463	-5,131			-5,131		
40.0005 Reduction pursuant to P.L. 101-165		-6,083			-6,083	
41.0001 Transferred to other accounts(-)	-351,184	-130,974		-351,184	-130,974	
41.2201 Transferred to other accounts (unob bals)			-181,700			-181,700
42.2201 Transferred from other accounts (unob bal			498,750			498,750
43.0001 Appropriation (adjusted)	15,566,184	15,542,185	14,035,700	15,566,184	15,542,185	14,035,700

Aircraft Procurement, Air Force
Program and Financing (in Thousands of dollars) SUMMARY

Identification code 57-3010-0-1-051		1989 actual	1990 est.	1991 est.
	Relation of obligations to outlays:			
71.0001	Obligations incurred, net	13,703,057	16,253,653	14,637,076
72.4001	Obligated balance, start of year	27,391,258	26,132,620	27,352,973
74.4001	Obligated balance, end of year	-26,132,620	-27,352,973	-27,469,549
77.0001	Adjustments in expired accounts (net)	12,389		
78.0001	Adjustments in unexpired accounts	-312,224		
90.0001	Outlays	14,661,860	15,033,300	14,520,500

Aircraft Procurement, Air Force
Object Classification (in Thousands of dollars) SUMMARY

Identification code 57-3010-0-1-051	1989 actual	1990 est.	1991 est.
Direct obligations:			
131.001 Equipment	13,715,431	16,057,285	14,637,076
199.001 Total Direct obligations	13,715,431	16,057,285	14,637,076
Reimbursable obligations:			
231.001 Equipment	231,351	443,368	247,000
299.001 Total Reimbursable obligations	231,351	443,368	247,000
999.901 Total obligations	13,946,782	16,500,653	14,884,076

Aircraft Procurement, Air Force
Program and Financing (in Thousands of dollars) FISCAL YEAR 1987

Identification code 57-3010-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
	1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
Program by activities:						
Direct program:						
00.0101 Combat aircraft				567,347		
00.0201 Airlift aircraft				1,516		
00.0401 Other aircraft				21,784		
00.0501 Modification of inservice aircraft				583,496		
00.0601 Aircraft spares and repair parts				103,350		
00.0701 Aircraft support equipment and facilities				439,482		
00.9101 Total direct program				1,716,975		
01.0101 Reimbursable program				33,664		
10.0001 Total				1,750,639		
Financing:						
Offsetting collections from:						
11.0001 Federal funds(-)				11,652		
13.0001 Trust funds(-)				-8,643		
14.0001 Non-Federal sources(-)				18		
17.0001 Recovery of prior year obligations				-188,168		
Unobligated balance available, start of year:						
21.4002 For completion of prior year budget plans				-1,688,098		
21.4003 Available to finance new budget plans	-112,087			-112,087		
21.4009 Reprograming from/to prior year budget pla	-122,600					
22.4001 Unobligated balance transferred to other acc	119,819			119,819		
25.0001 Unobligated balance lapsing	114,868			114,868		
39.0001 Budget authority						

Aircraft Procurement, Air Force
Program and Financing (in Thousands of dollars) FISCAL YEAR 1988

Identification code 57-3010-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
	1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
Program by activities:						
Direct program:						
00.0101 Combat aircraft				1,199,153	573,716	
00.0201 Airlift aircraft				4,310	4,565	
00.0401 Other aircraft					601	
00.0501 Modification of inservice aircraft				302,156	301,525	
00.0601 Aircraft spares and repair parts				193,831	62,585	
00.0701 Aircraft support equipment and facilities				607,799	745,301	
00.9101 Total direct program				2,307,249	1,688,293	
01.0101 Reimbursable program				77,657	35,837	
10.0001 Total				2,384,906	1,724,130	
Financing:						
Offsetting collections from:						
11.0001 Federal funds(-)				33,511		
13.0001 Trust funds(-)				308		
14.0001 Non-Federal sources(-)				-10		
17.0001 Recovery of prior year obligations				-124,056		
Unobligated balance available, start of year:						
21.4002 For completion of prior year budget plans				-4,039,289	-1,724,130	
21.4009 Reprograming from/to prior year budget pla	-20,500					
22.4001 Unobligated balance transferred to other acc	20,500			20,500		
Unobligated balance available, end of year:						
24.4002 For completion of prior year budget plans				1,724,130		
39.0001 Budget authority						

Aircraft Procurement, Air Force
Program and Financing (in Thousands of dollars) FISCAL YEAR 1989

Identification code 57-3010-0-1-051		Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
		1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
	Program by activities:						
	Direct program:						
00.0101	Combat aircraft	7,698,044			3,606,006	3,154,063	937,975
00.0201	Airlift aircraft	995,571			904,398	44,715	46,458
00.0301	Trainer aircraft	9,525				8,573	952
00.0401	Other aircraft	94,802			3,170	59,805	31,827
00.0501	Modification of inservice aircraft	2,332,269			1,415,690	659,575	257,004
00.0601	Aircraft spares and repair parts	2,922,258			2,603,694	30,250	288,314
00.0701	Aircraft support equipment and facilities	1,598,103			1,158,249	280,033	159,821
00.9101	Total direct program	15,650,572			9,691,207	4,237,014	1,722,351
01.0101	Reimbursable program	280,561			120,030	160,531	
10.0001	Total	15,931,133			9,811,237	4,397,545	1,722,351
	Financing:						
	Offsetting collections from:						
11.0001	Federal funds(-)	-106,502			-106,502		
13.0001	Trust funds(-)	-173,701			-173,701		
14.0001	Non-Federal sources(-)	-358			-358		
	Unobligated balance available, start of year:						
21.4002	For completion of prior year budget plans					-6,035,508	-1,722,351
21.4009	Reprograming from/to prior year budget pla	-84,388	84,388			-84,388	
22.4001	Unobligated balance transferred from other a		-84,388				
	Unobligated balance available, end of year:						
24.4002	For completion of prior year budget plans				6,035,508	1,722,351	
39.0001	Budget authority	15,566,184			15,566,184		
	Budget authority:						
40.0001	Appropriation	15,922,499			15,922,499		
40.0004	Reduction pursuant to P.L. 100-463	-5,131			-5,131		
41.0001	Transferred to other accounts(-)	-351,184			-351,184		
43.0001	Appropriation (adjusted)	15,566,184			15,566,184		

Aircraft Procurement, Air Force
Program and Financing (in Thousands of dollars) FISCAL YEAR 1990

Identification code 57-3010-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
	1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
Program by activities:						
Direct program:						
00.0101 Combat aircraft		6,805,610			4,124,120	1,846,915
00.0201 Airlift aircraft		1,632,704			1,143,123	326,364
00.0301 Trainer aircraft		144,400			101,187	28,800
00.0401 Other aircraft		51,104			41,206	6,030
00.0501 Modification of inservice aircraft		2,563,536			1,803,503	505,742
00.0601 Aircraft spares and repair parts		3,033,143			2,125,902	604,548
00.0701 Aircraft support equipment and facilities		1,129,988			792,937	224,500
00.9101 Total direct program		15,360,485			10,131,978	3,542,899
01.0101 Reimbursable program		247,000			247,000	
10.0001 Total		15,607,485			10,378,978	3,542,899
Financing:						
Offsetting collections from:						
11.0001 Federal funds(-)		-51,024			-51,024	
13.0001 Trust funds(-)		-195,976			-195,976	
Unobligated balance available, start of year:						
21.4002 For completion of prior year budget plans						-5,228,507
21.4003 Available to finance new budget plans			-181,700			-181,700
Unobligated balance available, end of year:						
24.4002 For completion of prior year budget plans					5,228,507	1,685,608
24.4003 Available to finance subsequent year budge		181,700			181,700	
39.0001 Budget authority		15,542,185	-181,700		15,542,185	-181,700
Budget authority:						
40.0001 Appropriation		15,679,242			15,679,242	
40.0005 Reduction pursuant to P.L. 101-165		-6,083			-6,083	
41.0001 Transferred to other accounts(-)		-130,974			-130,974	
41.2201 Transferred to other accounts (unob bals)			-181,700			-181,700
43.0001 Appropriation (adjusted)		15,542,185	-181,700		15,542,185	-181,700

Aircraft Procurement, Air Force
Program and Financing (in Thousands of dollars) FISCAL YEAR 1991

Identification code 57-3010-0-1-051		Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
		1989 actual	1990 est.	1991 est.	1989 actual	1990 est.	1991 est.
	Program by activities:						
	Direct program:						
00.0101	Combat aircraft			7,721,097			4,230,709
00.0201	Airlift aircraft			1,988,315			1,750,383
00.0301	Trainer aircraft			185,155			127,643
00.0401	Other aircraft			38,796			28,960
00.0501	Modification of inservice aircraft			1,763,591			1,542,463
00.0601	Aircraft spares and repair parts			1,391,057			840,011
00.0701	Aircraft support equipment and facilities			1,129,389			851,657
00.9101	Total direct program			14,217,400			9,371,826
01.0101	Reimbursable program			247,000			247,000
10.0001	Total			14,464,400			9,618,826
	Financing:						
	Offsetting collections from:						
11.0001	Federal funds(-)			-9,963			-9,963
13.0001	Trust funds(-)			-237,037			-237,037
	Unobligated balance available, end of year:						
24.4002	For completion of prior year budget plans						4,845,574
39.0001	Budget authority			14,217,400			14,217,400
	Budget authority:						
40.0001	Appropriation			13,718,650			13,718,650
42.2201	Transferrred from other accounts (unob bal			498,750			498,750
43.0001	Appropriation (adjusted)			14,217,400			14,217,400

(In Thousands of Dollars)

Program Estimate	- FY 91	$7,721,097
Program Estimate	- FY 90	6,805,610
Program Actual	- FY 89	7,698,044

ACTIVITY: Combat Aircraft

PART I PURPOSE AND SCOPE

This activity provides for the procurement of new aircraft, associated flight simulation devices, and other peculiar training and support equipment for modernization of the U.S. combat forces and to improve the efficiency of training programs.

Combat aircraft are required to attain and maintain air superiority, interdict enemy supply lines, provide reconnaissance of enemy forces, and furnish close air support to ground forces. The aircraft can be used to counter a variety of threats and offer options of response ranging from the use of diversified conventional weapons through a variety of nuclear weapons.

The FY 1990 and FY 1991 programs include funds for the procurement of B-2, F-15, F-16, MC-130H, and the AC-130U Gunship. The programs also include funds for procurement of flight simulators for F-15 and F-16 aircraft and depot support equipment for the B-1B. The F-16 request is for multiyear procurement.

PART II JUSTIFICATION OF FUNDS REQUESTED

The FY 1990 and FY 1991 funding requirements for procurement of combat aircraft, related support items, and advance procurement in support of the following year's program are: FY 1990 - $6,805,610 thousand; FY 1991 - $7,721,097 thousand. Details are as follows:

B-2 Advanced Technology Bomber (FY 1990 - 2 aircraft, $2,070.2 million; FY 1991 - 5 aircraft, $3,206 million)

The B-2 is a multirole strategic weapons system with exceptional range and payload capabilities which is able to perform missions using conventional and nuclear weapons delivery systems against both fixed and relocatable targets. Deployment of the B-2 will address the national requirement to increase our targeting flexibility and to revitalize our strategic deterrent forces.

F-15E (FY 1990 - 36 aircraft, $1,337.1 million; FY 1991 - 36 aircraft, $1,699.8 million):

The basic F-15 aircraft is a twin engine, single crew, fixed swept wing aircraft designed specifically for high maneuverability in air-to-air combat. Its two Pratt & Whitney F-100 turbofan engines are each capable of thrust in the 25,000 lb. class. The F-15 is able to reach a dash speed of Mach 2.5. It is equipped with a balanced mix of medium and short range missiles, including AMRAAM capability, and the M-61 20mm cannon. The F-15E retains the basic air superiority capability of the F-15 A-D models and has air-to-surface weapons capability, as well. The F-15E configuration includes a two man crew with missionized cockpits, Low Altitude Navigation, Targeting, and Infrared for Night (LANTIRN) capability, automatic terrain following/terrain avoidance (auto TF/TA), and other air-to-ground improvements.

F-16C/D (FY 1990 - 150 aircraft, $2,984.2 million; FY 1991 - 150 aircraft, $2,794.5 million):

The F-16 Multimission Fighter is a single seat, fixed wing, high performance, single engine fighter aircraft. The design, optimized for the .8 Mach to 1.6 Mach speed range, incorporates advanced technology features to enhance its combat capability while minimizing its acquisition, operating, and support costs. The advanced technology features include a blended wing-body and a fly-by-wire flight control system. The design also includes a high visibility, high "g" cockpit. The F-16 armament consists of a 20mm cannon, AIM-9L heat seeking air-to-air missiles, and approximately 11,000 pounds of conventional and guided air-to-surface ordinance. The F-16 is replacing F-4s in the active inventory, as well as modernizing the reserve forces.

MC-130 (FY 1990 - 2 aircraft, $169.0 million):

This aircraft is a medium size tactical transport powered by four T-56-A-15 turboprop engines. It has a ferry range of approximately 4,200NM; a service ceiling of 35,000 feet; a cruise speed of 290 knots; a payload capacity of 25,000 pounds; and a crew of seven. Aircraft features include precision navigation with an infrared detection system, terrain following/terrain avoidance radar, electronic counter measures (ECM) subsystems, and in-flight refueling. These subsystems will provide the aircraft the capability to conduct night, adverse weather, low level, long range operations in hostile, politically denied/sensitive, defended areas to infiltrate, resupply, or exfiltrate special operations forces or equipment. Follow-on FY 1991 support equipment procurements have been included in the Special Operations Forces appropriation.

AC-130U (FY 1990 - 5 aircraft, $235.1 million):

The basic aircraft is a C-130H powered by four T-56-A-15 turboprop engines. The AC-130U aircraft will have an enhanced capability, improved reliability and maintainability, more survivability than the existing AC-130H aircraft, and be more deployable than the older AC-130A gunships. The new aircraft subsystems will include precision navigation, target acquisition radar, fire control computers integrated on the 1553B data base, electronic countermeasures, infrared countermeasures, aerial refueling, covert lighting, trainable weapons, and secure communications systems. These subsystems will provide the gunship the capability to strike targets with surgical accuracy, to loiter safely in the target area for extended time periods, and to perform these tasks in night adverse weather conditions. Where practical every effort will be made to adapt off-the-shelf equipment, and to the maximum extent, these subsystems will be common with systems on other Air Force SOF aircraft.

(In Thousands of Dollars)

Program Estimate	- FY 91	$1,988,315
Program Estimate	- FY 90	1,632,704
Program Actual	- FY 89	995,571

ACTIVITY: Airlift/Tanker Aircraft

PART I PURPOSE AND SCOPE

This activity provides for the procurement of new aircraft and support items to continue improvement of the U.S. airlift/tanker forces. The FY 1990 and FY 1991 programs include funds for the procurement of C-17, C-27A, C-130H, C-20 and HC-130 aircraft.

PART II JUSTIFICATION OF FUNDS REQUESTED

The FY 1990 and FY 1991 fund requirements for procurement of airlift aircraft, related support items, and advance procurement funding in support of the following year's program are: FY 1990 - $1632.7 million; FY 1991 - $1988.3 million. Details are as follow:

C-17 (FY 1990 - 4 aircraft, $1,207.5 million; FY 1991 - 6 aircraft, $1,908.8 million):

The C-17A is a multi-engine turbo fan wide body aircraft capable of airlifting a substantial payload over intercontinental ranges without refueling and is specifically designed to move outsize combat equipment/cargo into and within an austere airfield environment. The C-17 will be capable of performing the full spectrum of airlift missions and is specifically designed to effectively and efficiently operate in both the inter and intratheater environments. The aircraft is equipped with receiver inflight refueling capability to increase its range/payload capability. Configuration variations will permit the aircraft to air deliver a variety of outsize/oversize combat/support equipment. An important aircraft characteristic is the flexibility to perform either the airland or airdrop/extraction mission. The C-17A design employs much existing technology, i.e., FAA certified commercial engines and current civil/ military avionics.

C-130H (FY 1990 - 12 aircraft, $260.2 million)

The C-130H is a medium size tactical transport powered by four T-56-A-15 turboprop engines. It has a ferry range of approximately 4,200 NM, a service ceiling of 35,000 feet, a cruise speed of 290 knots and normal crew of five. Its cargo compartment can carry a payload of 44,000 pounds. The mission of the C-130H is the immediate and responsive air movement and delivery of combat troops and supplies directly into objective areas through airlanding, extraction, airdrop, or other delivery techniques. These aircraft are being procured for the Air Force Reserve and the Air National Guard.

HC-130 (FY 1990 - 1 aircraft, $42.6 million)

The HC-130 is a tanker-rescue version of the C-130 production aircraft. This aircraft is capable of long-range search and rescue to include inflight refueling of rescue helicopters. This aircraft will support the continuous rescue alert commitment to the Alaskan Air Command and supplement the two HC-130 aircraft in the Alaskan area of operations.

C-20 (FY 1990 - 2 aircraft, $49.2 million)

The Special Air Mission C-20 aircraft is a commercial derivative of an FAA certified business jet production aircraft. C-20 capabilities will exceed 2400 NM unrefueled range and operate from 5000 foot runways with 14 to 18 passengers plus a crew of five in an executive configuration. The C-20 will not have a combat role; however, during wartime, it will continue to perform support missions into areas that include theaters of war. These two aircraft are being procured for the Air National Guard in support of National Guard Bureau (NGB). They will provide the NGB with needed rapid disaster response and support the on-going US drug interdiction efforts.

C-27A (FY 1990 - 5 aircraft, $73.3 million; FY 1991 - 5 aircraft, $79.5 million):

The C-27A Airlift Aircraft is a new tactical airlift, light-utility, Short-Takeoff-and-Landing (STOL) aircraft for U.S. Southern Command. The aircraft will be used for daily intratheater airlift requirements in areas where the transportation infrastructure, including developed airfields, is virtually nonexistent in terms of providing force mobility. The aircraft will be able to rapidly deliver troops and cargo into forward areas where only short runways or dirt strips are available and no other aircraft can operate. The
C-27A will be an off-the-shelf aircraft, procured competitively.

(In Thousands of Dollars)		
Program Estimate	- FY 91	$185,155
Program Estimate	- FY 90	144,400
Program Actual	- FY 89	9,525

ACTIVITY: Trainer Aircraft

Part I Purpose and Scope

This activity provides for the procurement of new aircraft, associated flight simulation devices, and support equipment required for flight training.

Part II Justification of Funds Requested

Tanker, Transport, Trainer System (1990 - 14 aircraft, $144.4 million; FY 1991 - 28 aircraft, $185.2 million)

The Tanker, Transport, Trainer System (TTTS) is required to implement Specialized Undergraduate Pilot Training (SUPT) in the Air Training Command. The TTTS includes commercially available jet aircraft which accommodate an instructor and two students. Under SUPT, students will enter the Tanker-Transport (TT) track or the Bomber-Fighter (BF) track after 85 hours in the T-37 aircraft. The T-38 will be used in the BF track. The TT syllabus includes training in high and low altitude instrument approaches, crew coordination, asymmetric thrust situations, low-level navigation, airdrop fundamentals, airborne rendezvous, and cell formation. This program also provides procurement of Operation Flight Trainers (OFT) and other required training devices.

	(In Thousands of Dollars)	
Program Estimate	- FY 91	$38,796
Program Estimate	- FY 90	51,104
Program Actual	- FY 89	94,802

ACTIVITY: Other Aircraft

PART I PURPOSE AND SCOPE

This activity provides for the procurement of MH-60G helicopter and Civil Air Patrol aircraft in FY 1990 and FY 1991.

PART II JUSTIFICATION OF FUNDS REQUESTED

The FY 1990 and FY 1991 funding requirements for procurement of aircraft and related support equipment are: FY 1990 - $51.1 million; FY 1991 - $38.8 million. Details are as follows:

MH-60G (FY 1990 - 4 Aircraft, $48.6 million; FY 1991 - 4 aircraft, $36.9 million)

The MH-60G is a substantially upgraded UH-60A designed to meet a variety of Air Force mission requirements. To upgrade combat mission capability, flexibility, and survivability, the MH-60G has extended range, precision low-level tactical navigation, and improved communication and weapon systems. The MH-60G is capable of a wide range of mission taskings in day and night Visual Meteorological Conditions (VMC) including marginal weather operations.

Civil Air Patrol Aircraft (FY 1990 - 38 aircraft, $2.5 million; FY 1991 - 38 aircraft, $1.8 million):

These funds will procure commercial new or used propeller driven aircraft for the Civil Air Patrol (CAP). CAP is a private, nonprofit corporation which functions as an official civilian auxiliary of the Air Force. CAP's best known Air Force mission is search and rescue.

(In Thousands of Dollars)

Program Estimate - FY 91	$1,763,591
Program Estimate - FY 90	2,563,536
Program Actual - FY 89	2,332,269

ACTIVITY: Modification of In Service Aircraft

PART I PURPOSE AND SCOPE

This budget activity provides for modification and modernization of in-service aircraft, training devices and support equipment necessary for safety, extension of service life, and to incorporate operational improvements after an aircraft has entered service. The program is designed to maintain the Air Force aircraft inventory at the most modern configuration level at the minimum cost.

PART II JUSTIFICATION OF FUNDS REQUEST

Modifications are necessary to enable strategic offense, defense, tactical, and support forces to maintain superiority over hostile forces, to extend the active service life of aircraft, to keep abreast of changing mission requirements and to ensure maximum safety for the aircraft and crews. Modifications are closely examined and priorities established so that only those most essential are accomplished with the limited funds available.

The FY 1990/1991 programs consist of follow-on requirements for previously initiated modifications as well as new start modifications. Funding is also requested to continue enhancement of peacetime readiness of an aging aircraft inventory. Significant efforts in FY 91 include:

(1) Modification to provide NAVSTAR Global Positioning System (GPS) capability will begin on the F-4, C-130, and C-18, and continue on the B-52, F-16, F-111, C-135, MH-60 and TR-1.

(2) F-15 C/D Multi-Stage Improvement Program (MSIP).

(3) Integration of the Short Range Attack Missile (SRAM) II on the B1.

(4) Modification of the F100 Engine to the 220E configuration for F-16 aircraft.

(5) Replacement of the Flight Control System on the F-111 aircraft.

(6) Replacement of the Malfunction Detection, Analysis and Recording System (MADARS) with state-of-the-art electronics on C-5A aircraft.

(7) T-37 Structural Life Extension Program (SLEP)

(8) Re-engining additional KC-135 tankers to reduce the airborne refueling shortfall.

(9) MILSTAR UHF/EHF Command Post Upgrade for the EC-135 aircraft.

(10) B-1 Overwing Fairing Fire Protection safety modification.

Aircraft modification kits are procured on a phased basis, lead time away from installation which is scheduled concurrently with normal depot maintenance programs to the maximum extent possible. Complex modifications are installed at Air Force depots or contractor facilities. Where the installations tasks are less complex or require a relatively small number of man-hours, they are accomplished in the field by assigned personnel or specialized teams dispatched from the depot or provided by contractors.

Beginning in FY 91, P-3 budget exhibits for aircraft modifications will budget installation funds within each individual procurement line item in addition to traditional procurement charges. This change reflects Congressional direction in the FY 90 Appropriations Act.

The aircraft modification resources unique to Special Operations Forces (SOF) have been transferred to SOCOM beginning with FY 91. Therefore, there are no SOF unique resources in the FY 1991 AF aircraft modification program.

The Air Force has aggressively pursued the use of existing modern hardware to upgrade aging aircraft components and competitive procurement for modification hardware to control costs and maximize the benefits from the resources provided for modifications. It has provided firm fixed priced contracts at more attractive prices. The Air Force remains committed to using the pressure of the competitive marketplace to control costs.

B-1B (FY 1990 - $51.0 million; FY 1991 - $134.1 million). The FY 1990/1991 program continues funding to incorporate modifications to correct deficiencies identified on the production line and incorporate improvements in vital systems based on operational lessons learned. The FY 1991 program initiates the Flight Director Computer Optimization, Exhaust Nozzle Wear Improvement, Short Range Attack Missiles (SRAM) II integration, Engine Upgrade, Overwing Fairing, and 1122 Improvement (Elecronic Counter Measure) modifications.

B-52 (FY 1990 - $157.5 million; FY 1991 - $109.6 million). The FY 1990 program included continuation of modifications for the ALQ-172 electronic countermeasures equipment for the B-52H, integration of internal Air Launched Cruise Missile Carriage capability, the HAVE NAP munition, NAVSTAR Global Positioning System, and the Very Low Frequency/Low Frequency (VLF/LF) Miniature Receive Terminals. FY 1990 initiated funding for Night Vision Goggles (NVG) compatibility.

The FY 1991 program continues funding for integration of the Advance Cruise Missile, NAVSTAR Global Positioning Systems, ALQ-172 electronic countermeasures equipment, and Night Vision Goggle Compatability. FY 1991 initiates funding for Transformer Rectifier Units, the Weapon System Trainer Update, the 47 section improvement, and Enhanced Ground Egress.

A-7 (FY 1990 - $51.0 million; FY 1991 - $1.7 million). FY 1990 continues funding for the Low Altitude Night Attack (LANA) depot capability, Bird Resistant Windscreen and the Inertial Measurement System Replacement program. FY 1991 program continues funding for the installation of Inertial Measurement System Replacement.

A-10 (FY 1990 - $38.8 million; FY 1991 - $41.6 million). The FY 1990 program includes the Low Altitude Safety and Targeting Enhancement for ground collision avoidance, Cockpit Air Distribution and Fuel Foam safety modification. FY 1991 continues the above modifications.

F/RF-4 (FY 1990 - $23.7 million; FY 1991 - $31.6 million). The FY 1990 program continues funding for the One Piece Windscreen and Radar Update modifications. The FY 1991 program initiates three modifications: the Electrical Distribution System Reconfiguration, Environmental Control System modification and NAVSTAR GPS. Funding is continued for various safety, reliability, and maintainability improvements.

F-15 (FY 1990 - $198.0 million; FY 1991 - $130.4 million). The FY 1990 program continues the Multi-Stage Improvement Program to the F-15C/Ds to provide continued combat effectiveness, the Joint Tactical Information Distribution System (JTIDS), and various safety, reliability and maintainability improvements. The latter includes improvements to the Radar Receiver System, Electric Lighting and Circuitry Safety, Wing Fuel Transfer Pump and various modifications that are being incorporated into the production line F-15E aircraft.

The FY 1991 program continues the Multi-Stage Improvement Program and the various reliability improvement modifications. It also begins an HF Communication modification.

F-16 (FY 1990 - $46.9 million; FY 1991 - $144.0 million). FY 1990 continues the Advanced Radar Warning Receiver and several reliability, maintainability and safety modifications. The NAVSTAR Global Positioning System, ALE-47 Flare/Chaff Dispensing System and Standard Ring Laser Gyro modifications were initiated.

The FY 1991 F-16 program initiates funding for modification of the F100 Engine to the 220E configuration, an improved Main Aircraft Battery and Arresting Hook safety improvement. Funding is continued for NAVSTAR Global Positioning System, FALCON 110 engine upgrade, ALE-47 Flare/Chaff Dispensing System and Combat Edge pressure breathing system.

F-111 (FY 1990 - $83.8 million; FY 1991 - $104.6 million). The FY 1990 program completes funding for the Avionics Modernization Program (AMP) and provides for four new start reliability and maintainability modifications. The program continues the Countermeasures Dispenser and NAVSTAR GPS. The FY 1991 program continues the reliability and maintainability efforts and initiates the Cluster Parachute safety modification.

C-5 (FY 1990 - $55.7 million; FY 1991 $64.7 million). The FY 1990 funding continues efforts on a reliability improvement for the Malfunction Detection, Analysis and Recording System (MADARS); a safety enhancement to the pylon; and the Automatic Communications Processor operational improvement. Funding is also continued for seven reliability and maintainability modifications.

The FY 1991 program continues funding for MADARS, Expanded Fan Speed Indicator, Pylon Fire Safety improvement and five reliability and maintainability modifications.

C-141 (FY 1990 - $31.2 million; FY 1991 - $36.0 million). The FY 1990 program continues modifications to the All Weather Landing System/Autopilot and the Automatic Communications Processor. A reliability/maintainability improvement to the Fuel Quantity Indicating System was initiated. The FY 1991 program continues funding for these three modifications.

T/AT-37 (FY 1990 - $16.4 million; FY 1991 - $46.3 million). FY 1990 continues the Structural Life Extension Program (SLEP) to ensure the service life of the T-37 and preclude flight safety structural problems. The reliability/maintainability improvement for the Simulator Computer Replacement is also continued.

The FY 1991 program continues the SLEP and Simulator Computer Replacement modifications.

T-38 (FY 1990 - $12.0 million; FY 1991 - $21.1 million). The FY 1990 program continues reliability/maintainability improvements including improved Brakes, Simulator Computer Replacement and the Very High Frequency Omni-directional Range Instrument Landing System replacement. FY 1990 initiates a safety modification which will redesign and strengthen structural components of the cockpit enclosure, and a reliability/maintainability improvement to the Engine Stage II Compressor Blade.

The FY 1991 program continues funding for the Cockpit Enclosure, Simulator Computer Replacement and Stage II Compressor Blade modifications.

C-130 (FY 1990 - $95.9 million; FY 1991 - $39.7 million). FY 1990 continues funding for the Self-Contained Navigation System (SCNS), the HF Auto Comm Processor, Airborne Command, Control and Communications Capsules, Microwave Landing System, APQ-122 Radar, Autopilot, Fuel Quantity and several other reliability improvements.

FY 1991 continues funding for the above programs as well as initiates NAVSTAR GPS.

SOF C-130 (FY 1990 - $126.9 million) This funding line provides funds required to support nine C-130 Special Operation Forces modifications. FY 1991 request submitted by SOCOM.

C-135 (FY 1990 - $655.3 million; FY 1991 - $631.9 million). Funding in FY 1990 is for continuation of the re-engining of the KC-135 tanker aircraft with CFM-56 engines. This program also includes modification to over 25 subsystems, including the landing gear, necessary to extend the KC-135 service life into the 21st Century. It provides an increase of fuel off-load capability equivalent of one and one half times the current KC-135A configuration. Other modification programs continued are Automatic

Data Processing and MILSTAR for the EC-135 and a fleetwide trainer update (MB-26). FY 1990 initiates funding for the NAVSTAR Global Positioning System, Automatic Communications Processor, Ground Collision Avoidance System, Microwave Landing system, Groundwave Emergency Network and the Fuel Savings Advisory System. The FY 1991 program continues existing modifications and initiates the High Power Transmit Set modification.

C-137 (FY 1990 - $1.7 million; FY 1991 $3.1 million). The FY 1990 and 1991 programs fund Federal Aviation Administration (FAA) directed service bulletins that are issued against all 707 type aircraft. These bulletins correct safety problems and aircraft deficiencies.

KC 10 (FY 1990 - $12.1 million; FY 1991 - $4.0 million). FY 1990 funds continuation of the Cargo Loading System and FAA directed service bulletins. Funding for the Automatic Communications Processor is initiated.

The FY 1991 program continues the Automatic Communications Processor modification and funding for service bulletins.

C-9 (FY 1990 - $5.7 million; FY 1991 - $1.7 million). FY 1990 continues a number of communications/avionics upgrades including the Very-High Frequency Omni-Directional Range Instrument Landing System Replacement, Ultra High Frequency and Very High Frequency Communications, Weather Radar Replacement, Distance Measurement Equipment Upgrade and FAA directed service bulletins. The FY 1991 program provides funding for FAA directed service bulletins.

C-12 (FY 1990 - $3.5 million; FY 1991 - $1.2 million). The FY 1990 program initiates an enhancement to navigational capability by installation of the OMEGA Navigation System and provides for conversion of existing engines to a standard commercial configuration. The FY 1991 program continues the engine conversion program.

C-18 (FY 1990 - $0.2 million; FY 1991 - $0.3 million). The FY 1990/1991 programs provide for low cost safety, reliability and maintainability modifications.

C-20 (FY 1990 - $0.2 million; FY 1991 - $0.2 million). The FY 1990/1991 programs provide for low cost safety, reliability and maintainability modifications.

C-21 (FY 1990 - $3.9 million: FY 1991 - $0.1 million). FY 1990 funds the Digital Electronic Engine Control (DEEC) modification which improves the operational performance of the engine and FAA directed service bulletins. FY 1991 funds are for FAA directed Service Bulletins.

C-23 (FY 1991 - $0.1 million). FY 1991 funds FAA directed service bulletins.

C-STOL (FY 1991 - $0.1 million). FY 1991 provides for FAA directed service bulletins.

VC-25A MOD (FY 1991 - $0.2 million). FY 1991 provides for low cost modifications to remedy deficiencies discovered after aircraft enters production.

E-3 (FY 1990 - $36.5 million; FY 1991 - $19.8). The FY 1990 program initiates NAVSTAR GPS, and continues Replacement of Magnetic Tape Transport and installation of HAVE Quick A-Net. The FY 1991 program continues Have Quick A-Net.

E-4 (FY 1990 - $12.1 million; FY 1991 - $37.3 million). The FY 1990 program continues the MILSTAR UHF transition, Worldwide Airborne Command Post Automatic Data Processing program and the Automatic Communications Processor. FY 1991 program initiates procurement of the Nuclear Detection program and continues MILSTAR. FAA directed service bulletins are funded both years.

E-8 (FY 1990 - $0.8 million). The FY 1990 program funds the NAVSTAR Global Positioning System (GPS) capability.

H-3 (FY 1990 - $0.7 million; FY 1991 $0.1 million). The FY 1990/1991 programs provide for low cost safety, reliability and maintainability modifications.

H-60 (FY 1990 - $7.2 million; FY 1991 - $5.5 million). The FY 1990/1991 programs contain funding for the NAVSTAR Global Positioning System.

OV-10 (FY 1990 - $0.1 million; FY 1991 - $0.2 million). The FY 1990/1991 programs provide for low cost safety, reliability and maintainability modifications.

T-41 (FY 1991 - $0.2 million). The FY 1991 program provides for low cost safety, reliability and maintainability modifications.

T-43 (FY 1990 - $10.2 million; FY 1991 - $0.4 million). The FY 1990 program continues funding for the replacement of the outdated computer in the Undergraduate Navigation Trainer Simulator, initiates a safety modification to the Attitude Heading

Reference System and continues Federal Aviation Administration (FAA) directed service bulletins. The FY 1991 program provides continued funding for FAA directed service bulletins.

TR-1A (FY 1990 - $22.3 million; FY 1991 - $36.0 million). The FY 1990 program continues modifications for Aircraft Weight Reduction, the NAVSTAR Global Positioning System, Senior Glass, Airborne Recorders, Avionics Update and Advanced Defensive System.

The FY 1991 program continues the above on-going modification programs.

OTHER AIRCRAFT (FY 1990 - $59.4 MILLION; FY 1991 - $38.8 million). In FY 1990, funds are required for continuation of previously initiated modifications as follows: Aircrew Eye/Respiratory Protection (AERP); Have Quick II Faster Hopping and Increased Power and alternate timing; Improved Detection ALR-46; TTU-205 Field Test Set; ALE-40 Deficiencies; Support Equipment Upgrade and Replacement of Paper Tape Input. The FY 1990 program initiates funding for improvements to the MAU-12 Bomb Rack.

The FY 1991 program continues funding for AERP Have Quick II Radio Faster Hopping and Increased Power, ALE-40 Deficiencies, Support Equipment Upgrade, and MAU-12 Bomb Rack.

SOF HH-53 (FY 1990 - $31.0 million). The FY 1990 program continues reliability/ maintainability improvements including the Service Life Extension Program (SLEP), Crashworthy Fuel System and Engine Torque Indicator. FY 1991 request submitted by SOCOM.

SOF Other (FY 1990 - $14.3 million) FY 1990 initiates funding for Interactive Defensive System (IDAS). FY 1991 request submitted by SOCOM.

Classified Projects (FY 1990 - $49.9 million; FY 1991 - $74.9 million). These funds are required for the modification of a variety of aircraft and airborne systems used in classified missions which, because of their sensitivity, require the application of special management and security safeguards.

SOF CLASSIFIED PROJECTS (FY 1990 - $9.4 million). These funds are required to support classified Special Operations Forces modifications. The FY 1991 request is being submitted by SOCOM.

Civil Reserve Airlift Fleet (FY 1990 - $0.9 million; FY 1991 - $2.1 million). These funds provide equipment enhancements and communications/navigation upgrades.

Mod Installations (FY 1990 - $637.4). This line item exists for FY 1990 only. By Congressional direction these funds provide for installation (through FY 92) of modification equipment procured in FY 1990, as well as, equipment procured in prior years but not yet installed. Installation requirements, in FY 1991 and subsequent are budgeted with the applicable modification in each P-1 line item.

The following table summarizes funds requirements for Fiscal Years 1989, 1990 and 1991 by aircraft/category:

MODIFICATION OF IN-SERVICE AIRCRAFT
($ IN MILLIONS)

Aircraft/Category	FY 1989	FY 1990	FY 1991
B-1	$24.5	$51.0	$134.1
B-52	205.4	157.5	109.6
A-7	25.2	51.0	1.7
A-10	22.9	38.8	41.6
F/RF-4	16.5	23.7	31.6
F-5	0.2	-	-
F-15	174.2	198.0	130.4
F-16	238.2	46.9	144.0
F-111	124.3	83.8	104.6
C-5	101.3	55.7	64.7
C-141	20.1	31.2	36.0
SOF-C141	20.7	-	-
T/AT-37	12.9	16.4	46.3
T-38	19.8	12.0	21.1

Aircraft/Category	FY 1989	FY 1990	FY 1991
C-130	89.4	95.9	39.7
SOF-C130	137.0	126.9	-
C-135	784.6	655.3	631.9
C-137	0.6	1.7	3.1
KC-10	26.0	12.1	4.0
C-9	6.7	5.7	1.7
C-12	-	3.5	1.2
C-18	-	0.2	0.3
C-20	-	0.2	0.2
C-21	-	3.9	0.1
C-23	-	-	0.1
VC-25A	1.9	-	0.2
C-STOL	-	-	0.1
E-3	16.4	36.5	19.8
E-4	38.7	12.1	37.3
E-8	-	0.8	-
H-1	0.4	-	-
H-3	-	0.7	0.1

Aircraft/Category	FY 1989	FY 1990	FY 1991
SOFHH-53	38.8	31.0	-
H-60	-	7.2	5.5
MOD INST	-	637.4	-
OV-10	-	0.1	0.2
T-41	-	-	0.2
T-43	4.9	10.2	0.4
TR-1A	20.3	22.3	36.0
OTHER	52.5	59.4	38.8
SOFOTH	6.5	14.3	-
CLASSIFIED	83.3	49.9	74.9
SOFCLF	18.0	9.4	-
CRAF	-	0.9	2.1
TOTAL	2332.3	2563.5	1763.6

STATUS OF AIRCRAFT MODIFICATION PROGRAMS
FY 1989 Modification of Aircraft
Programs as of 30 November 1989
($ in millions)

Program	Total Program Appropriated	1/ Total Reprogramming	Total Value	Obligations	Expenditures
Budget Activity 5					
P-1 No 24-68	$2194.3	+138.0	$2332.3	$1565.2	$104.4

1/Adjustments have been made for the following reasons:

+172.2: Reprogramming for F-16 Airborne Self-Protection Jammer

-3.9: Allocation of Congressionally directed undistribued reduction

-6.3: Reprogramming for TACIT Rainbow

-1.3: Congressional reduction for Consultant/Advisory Services

-4.9: Reprogramming for FY 89 MILPERS

-10.5: Foreign Currency Adjustment Reprogramming

-10.0: Classified reprogramming

-4.2: Reprogramming for HAVE NAP

+6.9: from BA1 for C-25

STATUS OF AIRCRAFT MODIFICATION PROGRAMS
FY 1990 Modification of Aircraft
Programs as of 30 November 1989
($ in millions)

Program	Total Program Appropriated	1/ Total Reprogramming	Total Value	Obligations	Expenditures
Budget Activity 5					
P-1 No 24-68	$2648.8	-85.2	$2563.6	$67.7	0

-53.5: MILPERS Reprogramming

-30.7: FY 90 Program Deferrals

-1.0: Contractor Travel

(In Thousands of Dollars)

FY1991 Estimate	-	$1,391,057
FY1990 Estimate		$3,033,143
FY1989 Actual	-	$2,922,258

ACTIVITY: Aircraft Spares and Repair Parts

PURPOSE AND SCOPE: For FY89 and FY90, this activity provides funds to buy spare engines and other investment items used to repair aircraft and aircraft support equipment. Investment items are defined as reparable assemblies that are centrally procured and managed. The two categories reflected in FY89/90 are initial and replenishment spares. The initial spares category funds whole spare engines and engine modules to support initial operations of new aircraft; and new spare parts introduced to the inventory for the first time as a result of new aircraft, modifications, new support equipment, and other production charges (e.g., electronic countermeasure pods and special classified systems). Additionally, initial spares fund inventory level increases referred to as "new acceptance spares" for additional end items (e.g., more F-15s). The second category, replenishment spares, provides follow-on spares support for all aircraft and aircraft support equipment. The replenishment spares account finances the peacetime and wartime spares requirements. Similarly, spares support of Special Operation Forces (SOF) aircraft and modifications is included in the Spares and Repair Parts program.

In FY91, this activity will continue to provide funds for the procurement of initial spares, but will be required only for classified programs for replenishment spares. For the balance of replenishment spares, the Air Force has instituted a new concept of management which transfers funding responsibility from this central procurement account to the Air Force Stock Fund.

JUSTIFICATION OF FUNDS REQUESTED: The initial spares segment of the account has four parts. Part one, "Initial Weapon System Spares", funds engine spares and modules, aircraft spares, and peculiar ground support equipment spares required to support initial operations of new aircraft and inventory increases for additional end items. The second part, "Modification Spares", funds spare parts needed during initial operation of modified airborne systems. "Common Ground Support Equipment (GSE) Spares" and "Other Production Spares" comprise parts three and four and also support initial operations inventory increases. All initial spares represent supportability for initial operations after aircraft acquisition or modification.

A total of $3.3 million is requested in FY91 for replenishment aircraft spares in support of classified programs.

The following table compares program funding/requests by fiscal year:

AIRCRAFT SPARES AND REPAIR PARTS
(In Millions of Dollars)

	FY89	FY90	FY91
Initial Aircraft Spares	935.8	976.2	1387.8
Replenishment Aircraft Spares	1986.5	2057.0	3.3
Total	2922.3	3033.1	1391.1

Initial Aircraft Spares: The initial spares funding requirements are presented in more detail in the following table:

INITIAL AIRCRAFT SPARES
(In Millions of Dollars)

	FY89	FY90	FY91
Initial Weapon System Spares	753.4	843.5	1109.9
Initial Modification Spares	137.5	82.9	213.6
Initial Common GSE Spares	13.7	9.8	16.3
Initial Other Production Spares	31.2	40.0	48.0
Total Initial Spares	935.8	976.2	1387.8

The largest segment of this request is for Initial Weapon Systems Spares. Requested funding of $1109.9 million in FY91 will support initial operations of the in-production aircraft shown in the following table:

INITIAL WEAPON SYSTEMS SPARES REQUIREMENTS
(In Millions of Dollars)

Aircraft	Proc	FY89 Request	Proc	FY90 Request	Proc	FY91 Request
AC-130U	6	0	5	4.4	0	41.2
MC-130H	4	18.2	2	32.0	0	24.0
MH-60G	9	3.1	4	18.3	4	6.6
F-15	36	92.2	36	106.3	36	51.0
F-16	180	290.3	150	211.0	150	108.0
C-130	-	-	*13	0	-	-
B-2	3	240.5	2	239.2	5	621.6
C-17A	4	109.1	4	221.9	6	237.2
C-27	-	-	5	10.3	5	11.1
Tanker-Transport Training System	1	0	14	0	28	8.0
TOTAL WEAPON SYSTEM SPARES		753.4		843.5		1109.9

Note: Totals may not match individual sums due to rounding.

* Congress approved procurement of additional aircraft for the AFR/ANG without an increase in initial spares funding.

The second largest segment of initial spares requirements supports the aircraft modification program. The initial modification spares requirement of $213.6 million is needed to support initial operations for over 150 modifications on various aircraft totaling $1763.6 million in FY91. The requested amount represents 100 percent of the FY91 total mod spares requirement. The initial spares request to support classified mods is $42.3 million; this includes $11.0 million for Special Operations Forces (SOF) aircraft mod support.

A third segment of the request is for initial spares to support other production systems. The request is for $48.0 million. This request includes providing early-on spares support for the Low Altitude Navigation and Targeting Infrared System for Night (LANTIRN) $5.7 million; Tactical Crytologic Activities spares, $17.8 million; $7.1 million to support NAVSTAR Global Positioning System; and $6.6 million to support Missile and Space Technical Collection activities. The remainder of the requests support various electronic warfare projects. This request represents 100 percent of the requirement.

The fourth segment, Initial Ground Support Equipment (GSE) Spares supports replacement and newly introduced ground support equipment. The request is for $16.3 million which represents 100 percent of the requirement.

Spares and Repair Parts for Air National Guard, Air Force Reserve:

Within the Initial Spares request are dollars to support the Air National Guard (ANG) and Air Force Reserve (AFR). However, it's important to recognize that our item specific spares requirements are based upon worldwide need and not broken out by command or component. We buy spares to support a total Air Force requirement and provide assets to users based on their designated distribution priority. The bottom line is that we compute requirements and buy items to provide balance support to all Air Force units regardless of the user.

To calculate the Air National Guard/Air Force Reserve dollars that are displayed on the President's Budget P-1R Exhibit, we estimate using historical factors for initial modification spares and cost per flying hour for replenishment spares.

	FY89	FY90	FY91
Initial Spares	9.9	5.7	5.5
Replenishment Spares	365.6	337.4	274.3
Total	375.5	343.1	278.6

NOTE: Replenishment spares are funded through the Air Force Stock Fund beginning in FY91.

Replenishment Aircraft Spares: Since the submission of the FY90/91 Bush Amended President's Budget, the replenishment aircraft spares account has undergone significant changes in both requirements and the concept of management. The restatement of FY90 requirement reflected a substantial decrease which resulted from ongoing management initiatives. These initiatives included a new computational methodology for computing war reserve spares kits/base level self-sufficiency spares (WRSK/BLSS), the application of major commands combat exercise experience and more reliable engines. The FY90 funding levels for these restated requirements provide 100 percent of the peacetime operating requirements and 59 percent of the WRSK/BLSS requirements. As in years past, no dollars are available for other war reserve material. Overall, the replenishment spares account is funded at 52 percent of the total FY90 requirement. Beginning in FY91, funds are requested for $3.3 million in support of classified programs only due to a newly instituted management concept which transfers funding responsibility from this central procurement account to the Air Force Stock Fund. The replenishment spares funding levels for FY89 and FY90 are presented in more detail in the following table:

REPLENISHMENT AIRCRAFT SPARES
(In Millions of Dollars)

	FY89	FY90	FY91
POS	1933.3	1649.0	3.3
WRSK/BLSS	53.2	408.0	0
OWRM	0	0	0
TOTAL	1986.5	2057.0	3.3

Peacetime Operating Stock (POS)

The FY90 replenishment spares program supports 100 percent of the Air Force's peacetime training requirement. The requirement is based on an item-specific, failure/demand driven computation that supports the flying hour program leadtime away. Considering an average two to three year leadtime, the FY92 program of 3.3 million flying hours will be supported with FY90 funds. The largest drivers of the FY90 POS spares requirement are the F-111, B-1B, F-16 and their supporting engines. Even as the Air Force increases its inventory for new weapon systems/force structure, continued investment is required for new items in support of modifications or changing item requirements for existing inventory. A total of $3.3 million is requested in FY91 to support classified programs.

War Readiness Spares Kits/Base Level Self-Sufficiency Spares (WRSK/BLSS): WRSK/BLSS is the segment of war reserve materiel maintained at base level for units tasked with wartime missions. WRSK is an air transportable package of spares that will support specific units tasked to deploy for the first 30 days of a war. BLSS are spares designed to augment peacetime assets to support the initial increased wartime activity for units that will fight the war in-place.

FY90 provides a funding level of $408.0 million against the total FY90 War Readiness Spares Kits/Base Level Self-Sufficiency (WRSK/BLSS) requirement of $690.7 million (59 percent). The funding represents a start toward recovering from the shortfalls in FY88 and FY89.

Other War Reserve Materiel (OWRM): OWRM is the prestocked segment of war reserve materiel stored at the Air Force Logistics Command (AFLC) depots. These spares are required to sustain forces at wartime levels after day 30 of the war and until the industrial base can be expanded to satisfy and wartime requirements. The Defense Guidance constrains the requirement objective based on mid-term and long range resource plans. The FY90 OWRM requirements reflects the need to satisfy the mid-term sustainability objectives although no funding was requested due to fiscal constraints.

(In Thousands of Dollars)

Program Estimate-FY 91	$1,129,389
Program Estimate-FY 90	1,129,988
Program Estimate-FY 89	1,598,103

ACTIVITY: Aircraft Support Equipment and Facilities

PART I PURPOSE AND SCOPE

This activity provides for common support equipment required to service and test aircraft and their components; for refurbishment and rehabilitation of Government owned industrial machinery, equipment and facilities required in the manufacture of items funded by this appropriation; for those war consumable items required to be on hand for immediate use in the event of war and to replace those consumed in peacetime training; and for other charges such as electronic countermeasure equipment. The activity also provides for procurement of flight simulation equipment for aircraft that are no longer in production and for programs not associated with one specific weapon system.

PART II JUSTIFICATION OF FUNDS REQUESTED

The estimate for this activity is comprised of the following items:

(In Millions of Dollars)

LINE ITEM	FY 1989	FY 1990	FY 1991
Common Ground Equipment	$215.7	$241.5	$386.6
Common Ground Equipment (SOF)	14.1	55.8	-
Industrial Responsiveness	23.1	24.5	45.3
War Consumables	20.5	-	41.3
Other Production Charges	1,074.6	572.2	491.5
Other Production Charges (SOF)	2.6	9.3	-
Common ECM Equipment	247.5	226.6	164.7
ACTIVITY TOTALS	$1,598,103	$1,129,988	$1,129,389

COMMON GROUND SUPPORT EQUIPMENT
(FY89 - $215.7 million, FY90 - 241.5 million, FY91 - $386.6 million)

This program procures all initial and replacement organizational and intermediate (O&I) level support equipment which is common to more than one type of aircraft. The program also funds procurement of peculiar support equipment for out-of-production aircraft. The following are examples of O&I level equipment procured by this program: ground power generators, test sets and test equipment, memory loader/verifiers, ammunition loading systems, hydraulic test stands, fuel servicing units, aerial stores lift trucks, noise suppressors and maintenance platforms. The program also procures common depot support equipment required to establish initial depot capability for new aircraft, as well as, flight simulators and other training devices for out-of-production aircraft.

COMMON GROUND SUPPORT EQUIPMENT - SOF

The FY89 and 90 budget submissions included requirements for common and unique support equipment for the MH-53J, AC-130H, MC-130E, C-130E, HC-130P/N, and the C-141B in this program. Starting with FY91, SOF unique requirements are included in the Defense Agency account in Major Force Program 11 while SOF common requirements, i.e. those common to other US Air Force aircraft, are included in the Common Support Equipment program.

	(In Millions of Dollars)	
	FY1989	FY1990
Common Support Equipment - SOF	14.1	55.8

WAR CONSUMABLES

(FY89 - $20.5 million, FY90 - $0, FY91 - $41.3 million)

This program funds the procurement of war consumable equipment which will provide additional wartime materiel needed, in the event of hostilities, to sustain operations until such time as industrial production could be expanded to provide the required level of support. Included in this program are auxiliary fuel tanks, missile launchers, pylons, ejector racks and adaptors which are consumed, typically through ejection, during wartime operations.

The requirements for the F-16 370 gallon external fuel tank and the F-15 centerline pylon programs are in the Nonnuclear Consumables Annual Analysis published by Headquarters Air Force Plans and Operations staff. The rate at which the Air Force meets these requirements are governed by time phased objectives established in the Defense Planning Guidance. The tank and pylon inventories are well short of meeting even the minimum of these objectives.

The AMRAAM launcher program is driven by the requirement to retrofit previously fielded F-15s and F-16s with a launcher that is both AIM-9 and AMRAAM capable.

INDUSTRIAL RESPONSIVENESS

The Air Force Industrial Base Program (IBP) combines the resources of several appropriations to create a comprehensive IBP. The goal being to ensure that the defense industry is capable of supplying reliable, cost-effective, systems and components to operational commanders in peacetime and national emergencies. The program acknowledges the industrial base as a vital element in war deterrence and sustainability. Major elements in the overall program include management of twelve government-owned industrial plants, and the Defense Production Act Title III Program, plus support for the Air Force Manufacturing Technology (MANTECH) and Industrial Modernization Incentives Programs (IMP), Production Surge and industrial preparedness planning. These activities characterize the critical sectors and industries within the industrial base, make recommendations to resolve industrial deficiencies and bottlenecks, and where appropriate, execute plans of action designed to enhance the industrial base. Funds in this appropriation are to support the aircraft procurement segment of the Air Force IBP. Although the elements of cost are broken down more finely, in FY 90-91 three basic activities are to be funded through this appropriation:

(1) Air Force Industrial Plants. Consists of repair and expansion, major rehabilitation, environmental compliance, equipment movement and energy conservation at 12 DOD-owned, contractor-operated industrial facilities. These plants are the backbone of AF weapon system assembly for the B-1B, B-2, F-15, F-16, F-111, C-130, C-5B, cruise missiles, jet engines, Minuteman, Maverick, Phoeniz, AMRAAM, and TOW systems. Of the $25.5 M budgeted for AF plants in FY 91, $22.5 M is required to comply with federal, state, and local environmental laws.

(2) Industrial Planning. Provides for analysis of problems, constraints, and opportunities in the aircraft sector to ensure the industrial base can produce in peacetime and can accelerate deliveries of critical items during national emergencies. The collection, maintenance and use of this data is essential to support affordable sustainability and readiness.

(3) IMIP or Technology Modernization: IMIP is a joint venture between government and industry to accelerate the implementation of modern equipment and management techniques. IMIP provides a contractual link to encourage more aggressive industrial investments by DoD contractors. The program offers financial incentive to achieve cost reduction through investment in productivity enhancing equipment. Defense contractor profits are to a large extent a function of their costs. This is a disincentive to invest in cost-reducing, expensive capital equipment. Industry also copes with uncertainties in forecasting future DoD business. The purpose of IMIP is to mitigate the effects of negative incentives by sharing productivity-related savings.

PROGRAM COST BREAKDOWN								DATE 22 JAN 90
APPROPRIATION/BUDGET ACTIVITY AIRCRAFT PROCUREMENT, BPAC 1400				P-1 ITEM NOMENCLATURE INDUSTRIAL RESPONSIVENESS				
		(Total cost in thousands of dollars)						
ELEMENT OF COST	IDENT CODE	FY 1989		FY 1990		FY 1991		
		QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY TOTAL COST
A. Expansions	1000		.057		1.637		.500	
B Packing, Crating & Handling	2000		.534		1.319		0	
C. Capital Type Rehabilitation	3000		8.050		2.887		2.500	
D. Replacement & Modernization	4000		0		0		0	
E. Planning	6000		.998		2.724		3.680	
F. Environmental Protection	7000		3.595		11.745		22.562	
G. Industrial Modernization (IMIP)	8000		19.888		4.217		16.034	
H. Energy Conservation	9000		0		0		0	
TOTALS			23.120		24.529		45.276	

EXHIBIT P-22

1 COMPONENT	FY 19 91	FACILITY PROJECT DATA	2 DATE
USAF			27 Jun 89

3 INSTALLATION AND LOCATION	4. PROJECT TITLE
Air Force Plant 4 Ft Worth TX	MPC 7000 Env. Prot. (Alteration) Microbiological Degrade/Organic Mat'l

5 PROGRAM ELEMENT	6 CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
78011F	221-221	N/A	$442.0

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Microbiological Degradation of Organic Residuals (Waste Minimization)	L/S	---	---	$442.0

10 DESCRIPTION OF PROPOSED CONSTRUCTION

System will process approximately 2000 gals per day and will include pumps, piping, holding tank, carbon absorber, bio-reactor, oxygen feed unit and necessary power/controls.

BASIS OF NEED:
Will treat organic-contaminated wastewater and residuals using a microbiological reactor. This will eliminate the disposal of potentially hazardous organic substances left over from other treatment processes as well as organically contaminated groundwater.

IMPACT IF NOT PROVIDED:
Is required to comply with regulations promulgated or proposed by the Environmental Protection Agency (EPA) under authority of the Hazardous and Solid Waste Amendments (HSWA-1984) to the Resource Conservation and Recovery Act (RCRA). This legislation requires banning the land disposal of hazardous wastes unless the EPA determines that such a ban is not required to protect human health and the environment.

1 COMPONENT	FY 19 91	FACILITY PROJECT DATA	2 DATE
USAF			27 Jun 89

3 INSTALLATION AND LOCATION	4. PROJECT TITLE
Air Force Plant 4 Ft Worth TX	MPC 7000 Env. Prot. (Alteration) Replace East Ind. Waste Line

5 PROGRAM ELEMENT	6 CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
78011F	221-221	N/A	$2,893.0

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Replace East Industrial Waste Line	L/S	---	---	$2,893.0

10 DESCRIPTION OF PROPOSED CONSTRUCTION

Replace the underground east branch of the AFP 4 industrial wastewater (IW) line with a new line incorporating secondary containment with interstitial monitoring. Pipe sizes vary from 2 1/2" dia to 14" dia.

The east IW line carries various dilute industrial wastewater streams from test facilities and aircraft flight operations along the east side of the plant.

BASIS OF NEED:
Required to prevent discharge of hazardous substances in accordance with the Clean Water Act. The project will also reduce liability for such releases created by the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

IMPACT IF NOT PROVIDED:
A rupture in an existing waste line can result in potential discharge of hazardous substances to waters of the contiguous zone of the United States. Such releases will create immediate emergency response needs and create potentially very costly remediation. Undetected slow releases from underground lines can also create very costly remediation requirements.

1 COMPONENT	FY 1991	FACILITY PROJECT DATA	2 DATE
USAF			27 Jun 89

3 INSTALLATION AND LOCATION	4. PROJECT TITLE
Air Force Plant 4 Ft Worth TX	MPC 7000 Env. Prot (Alteration) Secondary Containment/Salvage Yard

5 PROGRAM ELEMENT	6 CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
78011F	221-221	N/A	$622.0

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Secondary Containment for Salvage Yard	L/S	---	---	$622.0

10 DESCRIPTION OF PROPOSED CONSTRUCTION

Provide concrete curbing and sump pit. Provide steel frame rain protection cover, approximately 29,000 SF.

BASIS OF NEED:
Yard is utilized to hold used, damaged or defective materials which have some resale or salvage value. Some of these items may have hazardous properties or may be contaminated with substances which are hazardous (e.g., solvents, cleaners, oils, coolant, etc.). The secondary containment and rain covers will provide a means of controlling leaks and spills before they contact the environment, as well as preventing rainfall and runoff from being contaminated by any hazardous substance.

IMPACT IF NOT PROVIDED:
Runoff from salvage yard operations could result in potential discharge of hazardous substances to waters of the contiguous zone of the United States. Such releases will create immediate emergency response needs and create potentially very costly remediation.

1 COMPONENT	FY 19 91	FACILITY PROJECT DATA	2 DATE
USAF			27 Jun 89

3 INSTALLATION AND LOCATION	4. PROJECT TITLE
Air Force Plant 4 Ft Worth TX	MCP 7000 Env. Prot. (Alteration) Non-Sulfide Chemical Milling

5 PROGRAM ELEMENT	6 CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
78011F	221-221	N/A	$789.0

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Non-Sulfide Chemical Milling (Waste Minimization)	L/S	---	---	$789.0

10 DESCRIPTION OF PROPOSED CONSTRUCTION

A process system including piping, tanks, pumps, filters, control system to remove sulfide compounds from chemical milling etch solution.

BASIS OF NEED:
Will reduce the quantity of hazardous waste generated through solution regeneration. Will eliminate the possibility of accidently producing hydrogen sulfide gas, a dangerous and toxic air pollutant.

IMPACT IF NOT PROVIDED:
Is required to comply with regulations promulgated or proposed by the Environmental Protection Agency (EPA) under authority of the Hazardous and Solid Waste Amendments (HSWA-1984) to the Resource Conservation and Recovery Act (RCRA).

1 COMPONENT	FY 1991	FACILITY PROJECT DATA	2 DATE
USAF			30 Jun 89

3 INSTALLATION AND LOCATION	4. PROJECT TITLE
Air Force Plant 6 Marietta GA	Equalization Basin for AFP 6 Tertiary Treatment Plant MPC 7000 Environmental Protection

5 PROGRAM ELEMENT	6 CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
78011F	221-221	N/A	1,800

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Equalization Basin	L/S	---	---	$1,320
Supporting Facilities				382
Site Preparation - 132	L/S	---	---	
Connection Piping - 250	L/S	---	---	
Subtotal				1,702
Construction Reserve (5%)				85
Total Facility Cost				1,787
Total Project Cost (rounded)				$1,800

10 DESCRIPTION OF PROPOSED CONSTRUCTION

Design and construct a 1,000,000 gallon equalization basin or tank for the AFP 6 third level sanitary treatment plant. Equalization basin (or tank) will be upstream of existing treatment plant trickling filters. Design effort to decide if tank or basin required.

BASIS OF NEED:
The existing tertiary treatment plant is not equipped to handle IWTP effluent with high phenol/cyanide contents. Present system must process high-limit effluent in bulk with resulting NPDES permit limit excursions. Installation of equalization basin (tank) will contain occasional IWTP discharge with high phenol/cyanide content and allow for proper treatment of resulting influent to tertiary plant over a period of time. This task is a recommendation of phenol/cyanide investigation under AF Project 1-87-33.

IMPACT IF NOT PROVIDED:
Regulation constraints by local & state offices of environmental agencies will cause the existing tertiary treatment plant to obtain supplemental processing from other means at great cost to the government.

1 COMPONENT	FY 19 91	FACILITY PROJECT DATA	2 DATE
USAF			30 Jun 89

3 INSTALLATION AND LOCATION	4. PROJECT TITLE
Air Force Plant 6 Marietta GA	Phosphate Treatment System MPC 7000, Environmental Protection

5 PROGRAM ELEMENT	6 CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
78011F	221-221	N/A	1,400

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Phosphate treatment System	L/S	---	---	$1,250
Supporting Studies Initial Waste Stream Study-80	L/S	---	---	80
Subtotal				1,330
Construction Reserve (5%)				67
Total Facility Cost				1,397
Total Project Cost (rounded)				$1,400

05

10 DESCRIPTION OF PROPOSED CONSTRUCTION

This task provides for the study, design and construction of a phosphate treatment system to retrofit the existing industrial waste treatment plant with additional phosphate capabilities. New facilities are proposed which will provide the addition of ferric sulfate feeders for precipitant addition to the tertiary treatment system. This system will precipitate phosphate out of solution by gravity in the final clarifiers at the third level treatment plant for treatment in the sludge disposal system.

BASIS OF NEED:

Notification was given by Georgia EPD to AFP 6 in Feb 89 that phosphate discharge limits were being reduced by 150% within a 2-year period.

After receiving notice of discharge limitation reductions regarding phosphorus pollutants from Georgia Department of Natural Resources, an assessment was made of impact on AF Plant 6/Base operations. With a monthly average discharge limitations being reduced approximately 150% of maximum discharge, it is obvious that continued environmental compliance is in jeopardy.

IMPACT IF NOT PROVIDED:

Difficulty in meeting existing discharge limitations are encountered during warm weather seasons and forthcoming reductions in discharge make compliance virtually impossible with existing equipment.

1 COMPONENT	FY 1991	FACILITY PROJECT DATA	2 DATE
USAF			16 Aug 89

3 INSTALLATION AND LOCATION	4. PROJECT TITLE
Air Force Plant 42 Palmdale CA	MPC 1000, Expansion, Add Entry Traffic Lanes from Avenue M

5 PROGRAM ELEMENT	6 CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
78011F	22	N/A	$300

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Add/Improve Traffic Lanes	LS	---	---	$300

10. DESCRIPTION OF PROPOSED CONSTRUCTION

This project provides for the addition and improvement of each site entry roadway from the existing guard houses to the existing parking lots at Sites 1 through 4. The estimated cost of work at each site will vary as follows:

Site 1	$60,000
Site 2	$60,000
Site 3	$155,000
Site 4	$25,000

BASIS OF NEED:

Avenue M, the access roadway to each of the above Sites, is being widened and improved by Los Angeles County from two lanes to four lanes. Turn lanes into each Site are being added/improved, and the Site entry roadways up to the Site guard buildings are being widened/improved. This construction work will be completed in 1990 along with the installation of traffic signals.

IMPACT IF NOT PROVIDED:

Without this project, the smooth, orderly flow of traffic into and out of each of the above Sites will be disrupted by the inadequacies of the existing Site access roadways. Each of the above entry traffic lanes requires addition/improvement to safely and efficiently handle the thousands of Air Force Plant 42 employee vehicles every day.

1 COMPONENT	FY 19 91	FACILITY PROJECT DATA	2 DATE
USAF			11 Jul 89

3 INSTALLATION AND LOCATION	4. PROJECT TITLE
AFP 59, Binghamton NY	MPC 7000, Environmental. Construct Solid Waste Recycling Fac.

5 PROGRAM ELEMENT	6 CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST ($000)
78011F	221-229	N/A	$205

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
Construct Solid Waste Handling Facility	LS	---	---	$205.0

10 DESCRIPTION OF PROPOSED CONSTRUCTION

Renovate the existing maintenance dock area to provide for segregation and handling of paper, metals, plastics and other solid waste products. Proposed work will include drainage, walls, electrical utilities, fire protection, heating and ventilation.

BASIS OF NEED:
Plant 59 does not have suitable facilities for the handling of solid recyclable materials such as paper, glass, plastics, etc. On 1 December, 1990, Broome County (Plant 59 is in Broome County) will implement a mandatory recycling program. On 1 January 1992, the state of New York will follow with its own statewide recycling mandate. This project will provide Plant 59 with a recycling facility that will meet both mandatory programs.

IMPACT IF NOT PROVIDED:
Without this environmental project, AFP 59 will be out of compliance with mandated environmental recycling requirements.

Other Production Charges

This program provides for items, such as Classified Projects, Alternate Mission Equipment, and Range Improvement, that are not directly related to other procurement lines in this appropriation and cannot be reasonable allocated and charged thereto. It also includes items, such as LANTIRN, NAVSTAR GPS, that are used by more than one weapon system and managed as end items themselves. The following table provides a comparison, by fiscal year, of the items in this program:

(In Millions of Dollars)*

	FY 1989	FY 1990	FY 1991
Classified Projects	$279.7	$239.9	$196.4
ECM Support	6.2	11.6	10.7
Range Improvement (ACMI)	16.0	6.2	7.8
LANTIRN	689.1	241.1	186.8
NAVSTAR Global Positioning System	54.3	44.7	27.6
GBU-15	-	4.4	18.0
TR-1	-	10.4	8.3
Training (Offensive)	4.8	1.2	-
TACIT RAINBOW	24.5	-	29.3
ALQ-172	-	4.8	1.8
HAVE NAP	-	3.3	
B-52 SIOP	-	4.6	5.0
Total Other Production Charges	$1,074.6	$572.2	$491.5

*Dollars may not add due to rounding

Classified Projects:

Includes the Air Force Tactical Improvement Program, General Defense Intelligence Projects, and other programs classified Special Access.

ECM Support:

The program procures electronic warfare and airborne photography/reconnaissance equipment to provide countermeasure capabilities against changing enemy electronic defenses or for other unpredictable and urgent operational requirements.

Range Improvement:

This is a joint Air Force/Navy program to procure pods which provide accurate kill/no kill data for assessment of tactics and aircrew training at the Air Combat Maneuvering Range. The pod is mounted on a standard launch rail and transmits airspeed, altitude, angle of attack, and weapons information to ground stations.

Low Altitude Navigation and Targeting Infrared System for Night (LANTIRN):

The LANTIRN navigation and targeting pods being procured within this project provide an air-to-ground electro-optical fire control system emphasizing FLIR, terrain following radar, and aircraft integration with Head-up Display (HUD) for flying low while critical battlefield targets are acquired, recognized, and weapons are launched.

NAVSTAR Global Positioning System:

NAVSTAR GPS is a space-based radionavigation system which will provide users their position (accurate to 16 meters), velocity (.1 meters per sec) and time (.1 microsecond) on a 24 hour per day, all weather, worldwide basis. The GPS satellite segment is in production and had an initial operational capability in FY 1987 and its full capability in FY 1988. The DoD policy is for GPS to replace all existing radionavigation systems on military aircraft by the mid 90s. This appropriation funds NAVSTAR GPS user avionics for all USAF aircraft plus the Air Force share of GPS production start-up costs.

GBU-15 Improved Data Link:

The GBU-15 is a data link controlled precision guided glide bomb. Funds provide improvements to the anti-jam capabilities of the data link.

TR-1:

This program provides funds for the modification of the existing TR-1 ASARS radar to give the system a moving target indicator ability, and for the TR-1 reengining.

Training (Offensive):

Funds are to support the Strategic Training Route Complex (STRC), and procurement of Seekscore and other training equipment. The STRC will be composed of a multitude of interconnecting low level routes which will be equipped to provide a multi-threat electronic warfare environment and radar bomb scoring capability.

TACIT RAINBOW:

Funds procure the AGM-136 rotary launchers.

ALQ-172: The ALQ-172 improves the existing ALQ-117 to provide a better jamming defense for the B-52.

HAVE NAP: The HAVE NAP project gives the B-52 the capability to carry conventional strategic standoff guided missiles against point targets. Each aircraft can carry up to three missiles and the data link pod.

B-52 SIOP: This project supports the B-52 combat crew training.

Other Production Charges - SOF:

FY 89 funds are for nonrecurring engineering support, software development data and installation ef
gunship, and reliability and maintainability efforts. FY 90 funds are for a SOF project classifed
Access.

(In Millions of Dollars)

	FY 1989	FY 1990	FY 1991
Other Production Charges - SOF	2.6	9.3	0*

*All FY91 Other Production Charges - SOF funds were transferred to SOCOM.

Common ECM Equipment

Includes the procurement of new pods, such as the ALQ-131 Block II and ALQ-184 to counter the latest Soviet threats. The pods are used on several tactical strike/ reconnaissance aircraft. Funds also purchase the ALR-62I self protection suite for the F-111 fleet and modifications to the ALQ-99 Tactical Jamming System (TJS) for the EF-111 aircraft.

(In Millions of Dollars)

	FY 1989	FY 1990	FY 1991
Common ECM Equipment	247.5	226.6	164.7
ECM Pods	(188.1)	(161.0)	(125.9)
ALR-62I	(59.4)	(65.6)	(31.5)
ALQ-99 TJS	(-)	(-)	(7.3)

COMPARISON OF FY 1989 PROGRAM REQUIREMENTS AS REFLECTED IN FY 1990/1991 AMENDED BUDGET WITH FY 1989 PROGRAM REQUIREMENTS AS SHOWN IN FY 1991 AMENDED BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	Total Program Requirements Per 90/91 APB Budget	Total Program Requirements Per 1991 APB Budget	Increase + or Decrease -
Combat Aircraft	$7,635,644	$7,698,044	+$62,400
Airlift Aircraft	995,571	995,571	0
Trainer Aircraft	9,525	9,525	0
Other Aircraft	89,840	94,802	+4,962
Modification of In-Service ACFT	2,275,468	2,332,269	+124,163
Aircraft Spares and Repair Parts	2,994,123	2,922,258	-71,865
ACFT Support Equip and Facilities	1,619,315	1,598,103	-727,522
Reimbursable Program	181,000	228,748	+47,748
Total Fiscal Year Program	$15,619,486	$15,650,572	+$31,086

EXPLANATION BY BUDGET ACTIVITY

1. Combat Aircraft - (+$62.4 million). The increase is the net result of a fund transfer, Congressionally approved reprogrammings, the reinstatement of funding identified for reprogramings that were subsequently denied by the Congress, and below threshold reprograming actions. More specifically, $1.0M was transferred to the Coast Guard from the AC-130U; the B-2A and MC-130H programs were increased by $136.9 and $1.3 million, respectively, because reprogramings were denied; an additional $69.8M of F-16 funds were reprogramed to fully fund the Airborne Self Protection Jammer in the modification account; and the remaining $5.0M was reprogramed within the appropriation to higher priority Air Force needs.

2. Airlift Aircraft - ($0 million). No change.

3. Trainer Aircraft - ($0 million). No change.

4. Other Aircraft - (+$5.0 million). The increase is the result of a reprogramming action on the C-137E aircraft to upgrade its communications to a SOF configuration and provide an inflight refueling capability.
5. Modification of In-Service Aircraft - (+$56.8 million). The increase is the net result of reprogramming to fully fund F-16 ASPJ requirements (+69.8 million) offset by several reprogramming decreases..

6. Aircraft Spares and Repair Parts - (-$71.9 million). The decrease is the net result of funds being made available for reprogramming. More specifically, the replenishment spares account was increased by $0.8M, while the initial spares account was decreased by $71.9M to fund higher priority requirements.

7. Aircraft Support Equipment and Facilities - (-$21.2 million). The decrease is the result of denial of reprogramming to B-2 Common Ground Equipment (-$15.0 million) and several other minor reprogrammings. These funds were made available for higher priority efforts.

8. Reimbursable Program - (+$74.4 million). The increase is a result of receipt of more customer orders than anticipated.

COMPARISON OF FY 1989 FINANCING AS REFLECTED IN FY 1990 BUDGET WITH FY 1989 FINANCING AS SHOWN IN FY 1991 BUDGET

(In Thousands of Dollars)

	Financing Per FY 1990 Budget	Financing Per FY 1991 Budget	Increase(+) or Decrease(-)
Program Requirements	15,825,595	15,931,133	+105,538
Program requirements (Service Account)	(15,619,486)	(15,650,572)	(+31,086)
Program requirements (Reimbursable)	(206,109)	(280,561)	(+74,452)
Less:			
Anticipated Reimbursements	206,109	280,561	+74,452
Transferred From Other Accounts	67,900	0	-67,900
Reprograming From/To Prior Year Budget Plan	0	84,388	+84,388
Add:			
Transferred to other accounts	365,782	351,184	-14,598
Reduction pursuant to P.L. 100-463	5,131	5,131	0
Appropriation	15,922,499	15,922,499	0

EXPLANATION OF CHANGES IN FINANCING

The net effect of changes in financing for the Fiscal Year 1989 program was no change since submission of the FY 1990 Budget. Adjustments by category of financing are explained below.

1. Anticipated Reimbursements. The increase of $74,452 thousand is due to receipt of more customer orders than anticipated.

2. Transfer from Other Accounts. The decrease of $67,900 thousand is due to reprogramings into the Aircraft Procurement Appropriation.

3. Transferred to Other Accounts. The increase of $123,473 thousand is due to anticipated reprogrammings from the Aircraft Procurement Appropriation.

4. Reduction Pursuant to P.L. 100-463. No change.

COMPARISON OF FY 1990 PROGRAM REQUIREMENTS AS REFLECTED IN FY 1990/1991 APB BUDGET WITH FY 1990 PROGRAM REQUIREMENTS AS SHOWN IN FY 1991 APB BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	Total Program Requirements Per 1990/1991 APB	Total Program Requirements Per 1991 APB	Increase + or Decrease -
Combat Aircraft	$7,526,340	$6,805,610	-$720,730
Airlift Aircraft	1,765,957	1,632,704	-133,253
Trainer Aircraft	147,425	144,400	-3025
Other Aircraft	54,822	51,104	-3,718
Modification of In-Service Aircraft	2,183,869	2,563,536	+379,667
Aircraft Spares and Repair Parts	3,760,665	3,033,143	-727,522
ACFT Support Equipment and Facilities	1,348,122	1,129,988	-218,134
Reimbursable Program	-	-	-
Total Fiscal Year Program	$16,787,200	$15,360,485	-$1,426,715

EXPLANATION BY BUDGET ACTIVITY

1. Combat Aircraft - (-$720.7 million). The decrease is a net result of contract travel reductions (-$3.8M), and reductions against military end strength (-$32.2M) as well as Congressional adjustments (-$684.7M) which include both distributed and the allocation of undistributed reductions. Total Congressional adjustments against combat aircraft include: B-2 (-$447.6); MC-130H (-$71.8M); AC-130U (-$2.5M); F-15 (-$117.5M); and F-16 (-$45.4M).

2. Airlift Aircraft - (-$133.3 million). The decrease is a net result of a both Congressional distributed and undistributed adjustments (-$132.8M) and a reduction in military end strength (-$0.5M). Total Congressional adjustments against each airlift/tanker weapon system include: C-17 (-$484.1M); C-20 (+$49.2M); C-27 (-$0.7M); C-130H (+260.2M); and HC-130 (+$42.6M).

3. Trainer Aircraft - ($-3.0 million). The decrease is a net of an allocation of the undistributed Congressional reduction for aircraft components (-$2.1M) and a pending reprograming (-$0.9M).

4. Other Aircraft - (-$3.7 million). The decrease is the net of an allocation of the undistributed Congressional reduction for aircraft components to the MH-60G (-$2.9M) and a pending reprograming (-$1.3M) from the MH-60G, offset by a Congressional increase of $0.5M for the Civil Air Patrol aircraft.

5. Modification of In-Service Aircraft - (+$379.7 million). The increase is a net result of Congressional adjustments to the KC-135 reengining program (+$168.0M), an allocation of the ASPJ reduction to F-16 mods (-$149.4M), the F-15 (-$17.5M), B-52 (-$68.1M), B-1B (-$32.5), A-10 (-$14.5M), numerous minor changes (-$8.4M), and Other Aircraft (-$53.0M); program deferrals (-$30.7M); reductions for contract travel (-$1.0M); and anticipated reprogramings (-$53.3M). The reductions were offset by a Congressionally directed increase of $646.8M to reflect funding for modification installations in procurement rather than O&M.

6. Aircraft Spares and Repair Parts - (-$727.5 million). The decrease is the net result of distributed Congressional adjustments to the FY 1990 request (-$650.4M); allocation of Congressional undistributed, including $40.9M for ASPJ, (-$70.2M); anticipated contract travel savings (-$1.3M); and anticipated reprograming for higher priority efforts (-$5.3M).

7. Aircraft Support Equipment and Facilities - (-$218.1 million). The decrease is a net result of distributed Congressional adjustments to the FY 1990 request (-$162.6M); distribution of Congressional undistributed (-$28.4M); and other anticipated reprogramings for higher priority efforts (-$27.2M).

8. Reimbursable Program - (+$33.9 million). The increase is a result of receipt of more customer orders than anticipated.

COMPARISON OF FY 1990 FINANCING AS REFLECTED IN FY 1990 BUDGET WITH FY 1990 FINANCING AS SHOWN IN FY 1991 BUDGET

(In Thousands of Dollars)

	Financing Per FY 1990 Budget	Financing Per FY 1991 Budget	Increase(+) or Decrease(-)
Program Requirements	18,188,100	15,607,485	-2,580,615
Program requirements (Service Account)	(17,975,000)	(15,360,485)	(-2,614,515)
Program requirements (Reimbursable)	(213,100)	(247,000)	(+33,900)
Less:			
Anticipated Reimbursements	213,100	247,000	+33,900
Add:			
Transferred to Other Accounts	0	130,974	+130,974
Reduction Pursuant to P.L. 101-165	0	6,083	+6,083
Available to Finance Subsequent Year Budget	0	181,700	+181,700
Appropriation	17,975,000	15,679,242	-2,295,758

EXPLANATION OF CHANGES IN FINANCING

The Fiscal Year 1990 program has decreased $2,295,758 thousand since submission of the FY 1990 budget. Adjustments by category of financing are explained below:

1. Reimbursements. The increase of $33,900 thousand is due to receipt of more customer orders than anticipated.

2. Transferred to Other Accounts. The increase of $130,974 thousand is due to anticipated reprogrammings out of the Aircraft Procurement Appropriation.

3. Reduction Pursuant to P.L. 101-165. The increase of $6,083 thousand is due to a Congressional Adjustment for contract travel.

4. Available to Finance Subsequent Year Budget. The increase of $181,700 thousand is due to deferral of several programs.

FLIGHT SIMULATOR DATA SHEET

BUDGET YEAR PROGRAM

Simulator Model: F-15E Weapon System Trainer

Aircraft System Supported: F-15E

Description of Simulator: The F-15E WST will train both pilot and weapon system officers and will include Low Altitude Navigation and Targeting Infrared System for Night (LANTIRN) simulation. The trainer will be a modification to the design of the F-15 Operational Flight Trainer already being manufactured by Loral Corp. Four WSTs will be procured.

Development Status: Testing on units #1 and 2 was completed in FY88. Development of the first full mission capable trainer, unit #3 was begun in FY89. Delivery of units #1 and #2 occurred in FY89 to provide safety of flight training. In FY 1990 a contract for unit #4 was awarded.

Funding Data: (In Millions)	FY 1989	FY 1990	FY 1991
Quantity	(0)	(0)	(0)
RDT&E	.1	0	0
Procurement	17.0	37.3	13.8
MILCON	---	---	---
TOTAL	17.1	37.3	13.8

Basis for FY 1990/91 Request: In FY90 IOT&E testing will occur on unit #3. Updates on units #1 and #2. FY91 ECP activity to maintain concurrency to aircraft changes.

Contract Data: FFP to Loral Corp.

Cost History Comparison: N/A

FLIGHT SIMULATOR DATA SHEET

BUDGET YEAR PROGRAM

Simulator Model: F-16 Weapon System Trainer (WST)

Aircraft System Supported: F-16 aircraft.

Description of Simulator: The F-16 WST is comprised of an Operational Flight Trainer (OFT), and Electronic Warfare Training Device (EWTD) and a Digital Radar Landmass Simulation (DRLMS) and a visual system. The EWTD will be used to train pilots in the electronic warfare aspects of their mission. The DRLMS will simulate the Air-to-Ground (A/G) modes and displays of the F-16 Fire Control Radar (FCR) using a Defense Mapping Agency (DMA) Digital Data Base (DDB). The visual system permits training in low visibility take-off landing and emergency conditions. The WSTs are developed using a "Building-Block" and phased approach in consonance with the Tactical Air Forces (TAF) F-16 aircraft deployment plan.

Development Status: N/A

Funding Data: (In Millions)	FY 1989	FY 1990	FY 1991
Quantity	(6)	(1)	(10)
RDT&E	-	-	-
Procurement	71.1	53.3	14.6
MILCON	-	-	-
TOTAL	71.1	53.3	14.6

Basis for FY 1990/91 Request: F-16 WST FY 1990/91 budget is based on the following requirements:

- F-16C Operational Flight Trainers (OFTs) to provide "safety-of-flight" trainers for active units

- Improved Electronic Warfare Training Devices (IEWTDs) for F-16C EW training. Requirement for IEWTDs stressed by F-16 WST General Officer Review, Dec 85.

- LANTIRN simulators to be integrated with Block 40 OFTs to provide LANTIRN training.

- Block 40/50 Operational Flight Trainer (OFT) update for modification and production incorporation. Required to provide "safety-of-flight" OFTs for Block 40/50 aircraft.

- 3 Window Visual System Integrated into WST Block 30/40/50 for realistic mission training.

Contract Data:

OFT Blk 40/50	FFP	F33657-84-C-0173, Options
OFT Blk 30	FFP	F33657-82-C-0138, Options
IEWTD	FFP	F33657-87-C-0168
LANTIRN	FPI	F33657-86-C-2141
IDRLMS	FFP	F33657-81-C-2041
VISUAL SYSTEM	FFP	F33657-88-C-0023

The contractor for the Operational Flight Trainer and LANTIRN simulator is the Singer Company, Link Division, Houston, Tx. The DRLMS is built by the General Electric Co, Simulation and Control Systems Department, Daytona Beach, Fl. The IEWTD is built by the AAI Corporation of Cockeysville, MD, and the visual system is built by Evans & Sutherland, Salt Lake City, UT.

Cost History Comparison: The changes from FY 90 President's Budget to FY 91 request are required to match aircraft beddown plans.

SIMULATOR MODEL: C-17 AIRCREW TRAINING SYSTEM

BUDGET YEAR PROGRAM

Aircraft System Supported: C-17

Description of Simulator: An Aircrew Training System is being developed to be operated by a contractor, McDonnell Douglas Training Systems, Inc, to provide Qualified Aircrew members. The Training System is made up of Computer Based Training (CBT) devices used in a classroom, a cockpit simulator (CSS), Weapon System Trainers (WST), Loadmaster Stations (LST), Cargo Load Model (CLM) and Cargo Compartment Trainer (CCT).

Development Status: Contract was awarded for phase II in FY 89. System Critical Design Reviews will occur in FY 90 and FY 91. First system will be delivered in FY91.

Funding Data: (In Millions)	FY 1989	FY 1990	FY 1991
Quantity	(0)	(1)	(1)
RDT&E	26.2	24.3	8.1
Procurement	-	42.1	7.6
MILCON	5.0	-	4.2
Total	31.2	66.4	19.9

Basis for FY 1990/91 Request: C-17 WST FY 1990/91 budget is based on the following requirements:

- Develop Courseware for 10 Pilot, 7 Co-pilot 7 Loadmaster and 3 Maintenance Engine Run courses.
- Development and in plant testing of training equipment (CBT, CCS, WST, LST, CLM, and CCT)
- Production of first unit of training equipment.

Contract Data: FFP contract to McDonnell Douglas Training Systems, Inc., Bedford, Tx on 26 Oct 88 (F33657-88-C0029).

Cost History Comparison: N/A