DEPARTMENT OF THE ARMY

Procurement Programs

Committee Staff Procurement Backup Book
FY 2001 Budget Estimate

AIRCRAFT PROCUREMENT, ARMY

APPROPRIATION

February 2000

Index for AIRCRAFT PROCUREMENT, ARMY

Blin	Nomenclature	SSN	Filename	Page Number
	P-1 EXHIBIT			P1-1
	P-1M EXHIBIT			P1M-1
1	ARL (TIARA)	A11500	19342103.01P	1
2	UTILITY F/W (MR) AIRCRAFT	A11300	19440147.01P	5
3	GUARDRAIL COMMON SENSOR/ACS (TIARA)	A02005	19662103.01P	7
4	UH-60 BLACKHAWK (MYP)	AA0005	16772147.01P	9
5	UH-60 BLACKHAWK (MYP) (ADV PROC)	AA0005	16773147.01P	17
6	GUARDRAIL MODS (TIARA)	AZ2000	11032103.01P	26
7	ARL MODS	AZ2050	11040103.01P	36
8	AH1F MODS	AA0150	12334147.01P	46
9	AH-64 MODS	AA6605	12706137.01P	47
10	CH-47 CARGO HELICOPTER MODS (MYP)	AA0252	13264137.01P	58
11	CH-47 ICH	AA0254	13265137.01P	72
12	CH-47 ICH ADVANCE PROCUREMENT	AA0254	13266137.01P	76
13	UTILITY/CARGO AIRPLANE MODS	AA0270	14194147.01P	80
14	OH-58 MODS	AA0400	14752147.01P	84
15	AIRCRAFT LONG RANGE MODS	AA0560	15310147.01P	85
16	LONGBOW	AA6670	15682137.01P	86
17	LONGBOW (ADV PROC)	AA6670	15683137.01P	98
18	UH-1 MODS	AB0602	16426147.01P	101
19	UH-60 MODS	AA0480	16949147.01P	102
20	KIOWA WARRIOR	AZ2200	17542147.01P	110
21	EH-60 QUICKFIX MODS	AB3000	17728103.01P	114
22	AIRBORNE AVIONICS	AA0700	18472137.01P	118
23	ASE MODS (SIRFC)	AA0720	18844137.01P	131
24	ASE MODS (ATIRCM)	AA0722	18848137.01P	135
25	GATM	AA0701	18858137.01P	139
26	MODIFICATIONS < $5.0M	AA0725	19030147.01P	145

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27	SPARE PARTS (AIR)	AA0950	10420107.01P	146
28	AIRCRAFT SURVIVABILITY EQUIPMENT	AZ3504	13632137.01P	147
29	AVIONICS SUPPORT EQUIPMENT	AZ3000	10832103.01P	150
30	COMMON GROUND EQUIPMENT	AZ3100	15212147.01P	154
31	AIRCREW INTEGRATED SYSTEMS	AZ3110	16380137.01P	163
32	AIR TRAFFIC CONTROL	AA0050	16818147.01P	166
33	INDUSTRIAL FACILITIES	AZ3300	18132144.01P	171
34	AIRBORNE COMMUNICATIONS	AA0705	19161137.01P	173

Appropriation: **AIRCRAFT**

Activity: 1. **AIRCRAFT**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(9)	(10)	(11)	(12)
	****FIXED WING****								
1	ARL (TIARA) (A11500)				13,019				
2	UTILITY F/W (MR) AIRCRAFT (A11300)			5	26,766	1	5,293		
3	GUARDRAIL COMMON SENSOR/ACS (TIARA) (A02005)	A			1,913				
					--------		--------		--------
	SUB-ACTIVITY TOTAL				**41,698**		**5,293**		
	****ROTARY****								
4	UH-60 BLACKHAWK (MYP) (AA0005)			29	293,020	19	199,286	6	81,205
	LESS: ADVANCE PROCURMENT (PY)				-23,219				-16,554
					-------		-------		-------
					269,801		199,286		64,651
5	UH-60 BLACKHAWK (MYP) (AA0005) ADVANCE PROCUREMENT (CY)						16,554		22,127
					--------		--------		--------
	SUB-ACTIVITY TOTAL				**269,801**		**215,840**		**86,778**
	ACTIVITY TOTAL				**311,499**		**221,133**		**86,778**

Appropriation: **AIRCRAFT**

Activity: 2. **MODIFICATION OF AIRCRAFT**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(9)	(10)	(11)	(12)
	****MODIFICATIONS OF AIRCRAFT****								
6	GUARDRAIL MODS (TIARA) (AZ2000)				43,516		18,699		22,626
7	ARL MODS (AZ2050)	A					5,777		6,553
8	AH1F MODS (AA0150)				509		428		423
9	AH-64 MODS (AA6605)	A			50,309		32,660		18,516
10	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)				80,422		114,899		117,083
11	CH-47 ICH (AA0254)								57,630
12	CH-47 ICH (AA0254) ADVANCE PROCUREMENT (CY)								26,200
13	UTILITY/CARGO AIRPLANE MODS (AA0270)				10,047		9,603		11,903
14	OH-58 MODS (AA0400)				90		464		462
15	AIRCRAFT LONG RANGE MODS (AA0560)				1,068		754		752
16	LONGBOW (AA6670)				610,167		789,167		744,846
	LESS: ADVANCE PROCURMENT (PY)				-36,932		-43,154		-35,392
					-------		-------		-------
					573,235		746,013		709,454
17	LONGBOW (AA6670) ADVANCE PROCUREMENT (CY)				43,154		35,392		35,000
18	UH-1 MODS (AB0602)				3,758		4,342		4,297

Appropriation: **AIRCRAFT**

Activity: 2. **MODIFICATION OF AIRCRAFT**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(9)	(10)	(11)	(12)
19	UH-60 MODS (AA0480)				22,671		12,962		3,021
20	KIOWA WARRIOR (AZ2200)				48,721		41,940		41,816
21	EH-60 QUICKFIX MODS (AB3000)						4,872		
22	AIRBORNE AVIONICS (AA0700)				56,299		45,475		60,042
23	ASE MODS (SIRFC) (AA0720)				5,419		11,693		4,487
24	ASE MODS (ATIRCM) (AA0722)						4,901		
25	GATM (AA0701)						7,028		10,073
26	MODIFICATIONS < $5.0M (AA0725)				1,370		2,564		
	SUB-ACTIVITY TOTAL				**940,588**		**1,100,466**		**1,130,338**
	ACTIVITY TOTAL				**940,588**		**1,100,466**		**1,130,338**

Appropriation: **AIRCRAFT**

Activity: 3. **SPARES AND REPAIR PARTS**

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(9)	(10)	(11)	(12)
	****SPARES AND REPAIR PARTS****								
27	SPARE PARTS (AIR) (AA0950)				27,486		15,934		15,167
	SUB-ACTIVITY TOTAL				**27,486**		**15,934**		**15,167**
	ACTIVITY TOTAL				**27,486**		**15,934**		**15,167**

Appropriation: **AIRCRAFT**

Activity: 4. **SUPPORT EQUIPMENT AND FACILITIES

LINE NO.	ITEM NOMENCLATURE	ID	(DOLS) FY 00 UNIT COST	FY 99		FY 00		FY 01	
				QTY	COST	QTY	COST	QTY	COST
(1)	(2)	(3)	(4)	(7)	(8)	(9)	(10)	(11)	(12)
	****GROUND SUPPORT AVIONICS****								
28	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)				10,436		15,280		
	SUB-ACTIVITY TOTAL				**10,436**		**15,280**		
	****OTHER SUPPORT****								
29	AVIONICS SUPPORT EQUIPMENT (AZ3000)				2,534		8,850		
30	COMMON GROUND EQUIPMENT (AZ3100)				21,837		20,077		11,926
31	AIRCREW INTEGRATED SYSTEMS (AZ3110)				8,972		17,167		3,490
32	AIR TRAFFIC CONTROL (AA0050)				16,843		8,684		74,144
33	INDUSTRIAL FACILITIES (AZ3300)				1,481		1,449		1,419
34	AIRBORNE COMMUNICATIONS (AA0705)				41,904		43,183		
35	CLOSED ACCOUNT ADJUSTMENT (AZ9999)				10				
	SUB-ACTIVITY TOTAL				**93,581**		**99,410**		**90,979**
	ACTIVITY TOTAL				**104,017**		**114,690**		**90,979**
	APPROPRIATION TOTAL				**1,383,590**		**1,452,223**		**1,323,262**

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

System/Modification	1998 & Prior	1999	2000	2001	2002	2003	2004	2005	To Complete	Total Program
GUARDRAIL MODS (TIARA) (AZ2000)										
System 2 Block Upgrade	198.8	40.7	18.7							258.2
TIBS and TRIXS for GRCS	27.1									27.1
Mini-IPF				22.6	18.2	3.7	3.7			48.2
ELINT Pod Replacement					9.9	10.3	15.4	3.6		39.2
SIGINT Transistion Program (STP)						14.0	8.8	9.0		31.8
Joint Tactical Terminal (JTT) Integration						5.7	2.0			7.7
Sygate Integration								1.1		1.1
System 4 Remote Relay		3.0								3.0
Total	**225.9**	**43.7**	**18.7**	**22.6**	**28.1**	**33.7**	**29.9**	**13.7**		**416.3**
ARL MODS (AZ2050)										
B-Kits for WKSTS			1.6							1.6
Upgrade to IMINT Suite			2.6	4.6	0.5		5.1			12.8
Radar Improvements			1.6			1.6				3.2
Upgrade to DAMA Compliant Radio				2.0	1.9	3.0				6.9
COMINT Upgrades						5.1	3.0	3.0		11.1
Aircraft Standardization						5.9	5.0	5.0		15.9
Aircraft Survivability Equipment for ARL						5.8	5.8	5.8		17.4
Joint Tactical terminal (JTT) integration						2.0	2.0	2.0		6.0
Airspace 2000						3.0				3.0
Upgrade ARL-M4 & M5 IMINT Suites						2.7				2.7
Total			**5.8**	**6.6**	**2.4**	**29.1**	**20.9**	**15.8**		**80.6**
AH-64 MODS (AA6605)										
Backup Control System (BUCS)	11.5	8.2			3.6	5.4	12.9	6.2	3.4	51.2
Fuel Control Warning Panel	7.8	1.7	0.5							10.0
Embedded GPS / Inertial NAvigation System (EGI)	82.3	2.3								84.6
H-11 Bolt Replacement	4.8				0.9	0.9	0.9	0.9		8.4
Airframe Modifications	7.4	8.3	9.5	4.8	15.8	14.7	4.9	8.6	7.0	81.0
Alternate Laser Code	32.3	9.6								41.9

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

System/Modification	1998 & Prior	1999	2000	2001	2002	2003	2004	2005	To Complete	Total Program
TADS/PNVS I/II upgrades	57.9	7.9								65.8
TADS/PNVS Upgrades	5.4	6.7	6.3	7.0	7.2	7.4	7.9	8.8	24.8	81.5
Misc Mod less than $5.0M	265.6	5.6	13.2	2.6	3.5	3.0	4.0	2.7	35.9	336.1
ORT Conversion	17.2								27.9	45.1
Captive Boresight Harmonization Kit (CBHK) Upgrade	14.5									14.5
Contingency Modernization Project (CMP)			3.2	4.1	4.4	6.5	2.3			20.5
Total	**506.7**	**50.3**	**32.7**	**18.5**	**35.4**	**37.9**	**32.9**	**27.2**	**99.0**	**840.6**
CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)										
Installation of Modification Kits Various	26.2	2.6	1.4	0.8						31.1
Improved Cross Shaft Adapters, Coupling & Bolts				1.1	0.2	0.2				1.6
Improved Battery				2.5	0.3	0.3				3.1
Engine Filtration System					5.1	7.0	8.4	20.2	32.4	73.0
Extended Range Fuel System	7.1	6.5	6.2	6.9	18.9	18.6	17.6			81.7
Engine Upgrade to T55-GA-714A Configuration	91.0	69.3	103.4	102.3	123.3	146.7	170.6	209.8	98.9	1115.4
APU Upgrade		2.0	4.0	3.5	1.1					10.5
Total	**124.3**	**80.4**	**114.9**	**117.1**	**148.9**	**172.7**	**196.5**	**230.0**	**131.3**	**1316.3**
CH-47 ICH (AA0254)										
Improved Cargo Helicopter				57.6	132.4	154.6	237.5	234.8	1541.2	2358.1
Total				**57.6**	**132.4**	**154.6**	**237.5**	**234.8**	**1541.2**	**2358.1**
UTILITY/CARGO AIRPLANE MODS (AA0270)										
Avionics System Cockpit Upgrade	15.5	10.0	9.6	11.9	16.0	15.4	9.9	9.9	140.0	238.1
Total	**15.5**	**10.0**	**9.6**	**11.9**	**16.0**	**15.4**	**9.9**	**9.9**	**140.0**	**238.1**
LONGBOW (AA6670)										
Longbow Apache Mods	981.5	475.0	631.1	596.8	697.6	751.4	728.9	410.6	402.8	5675.7
Apache Longbow FCR	269.6	98.3	114.9	112.6	112.3	87.8	37.4	27.5	377.0	1237.4
Total	**1251.1**	**573.3**	**746.0**	**709.4**	**809.9**	**839.2**	**766.3**	**438.1**	**779.8**	**6913.1**

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

System/Modification	1998 & Prior	1999	2000	2001	2002	2003	2004	2005	To Complete	Total Program
UH-60 MODS (AA0480)										
Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS)	16.9	11.8	1.7							30.4
Halon Changeout	0.1	2.5								2.6
Battery/Power Light Relocate	0.3	2.0	5.5	2.6	9.1	3.4				22.9
NVG Lighting Lower Console	1.9	4.9	4.8	0.4	2.3					14.3
Major UH-60A/L Modification Program						40.3	73.5	140.5		254.3
UH-60Q Medevac	9.4				27.4	10.4	19.3	18.9		85.4
Fire Hawk	2.0									2.0
UH-60L Safety/Operational Modifications							6.7	5.0		11.7
Minor Modification Programs	0.9	1.5	1.0							3.4
Total	**31.5**	**22.7**	**13.0**	**3.0**	**38.8**	**54.1**	**99.5**	**164.4**		**427.0**
KIOWA WARRIOR (AZ2200)										
Crew Station Mission Equipment Trainer (CSMET)	2.4	9.9	1.3							13.6
Safety Enhancement Program	136.9	36.2	38.6	41.8	42.3	42.3	31.4	31.4	195.1	596.0
Digitization (No P-3a Set)	9.8									9.8
Mast Mounted Site (MMS) (No P-3a Set)	1.4		2.0							3.4
Training Devices (No P-3a Set)	1.6									1.6
Remanufacture (No P-3a Set)	909.0	1.1								910.1
Retrofit (No P-3a Set)	480.3	1.0								481.3
Halon Fire Extinguisher (No P-3a Set)	1.8	0.5								2.3
Total	**1543.2**	**48.7**	**41.9**	**41.8**	**42.3**	**42.3**	**31.4**	**31.4**	**195.1**	**2018.1**
EH-60 QUICKFIX MODS (AB3000)										
Quickfix Upgrades			4.9							4.9
Total			**4.9**							**4.9**
AIRBORNE AVIONICS (AA0700)										
Embedded GPS Inertial Navigation System (EGI)	34.5									34.5
Doppler GPS Navigation System (DGNS) (AN/ASN-128B)	57.8	18.8	15.2	2.7						94.5
Global Positioning System (GPS) [AN/ASN-149]	2.1									2.1

Exhibit P-1M, Procurement Programs - Modification Summary

(TOA, Dollars in Millions)

System/Modification	1998 & Prior	1999	2000	2001	2002	2003	2004	2005	To Complete	Total Program
Improved Data Modem (IDM)	39.5	27.6	16.5	32.5	42.6	53.7	35.7	46.9	30.3	325.3
Aviation Mission Planning System	29.2	9.9	9.6	9.0	7.1					64.8
Embedded GPS Inertial Navigation System (EGI) PPI			4.2	11.4	18.8	8.6	9.9	14.6	9.1	76.6
Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI				4.4	9.5	5.9	6.8	15.3	3.5	45.4
Total	**163.1**	**56.3**	**45.5**	**60.0**	**78.0**	**68.2**	**52.4**	**76.8**	**42.9**	**643.2**
ASE MODS (SIRFC) (AA0720)										
Laser Detecting Set AN/AVR-2A(V)/AH-64	30.6									30.6
AN/ALQ-211 Suite of Integrated Radio Frequency CMS	127.0	5.4	11.7	4.5	14.3	4.8	4.9	2.2		174.8
Advanced Threat Infrared Countermeasures (ATIRCM)	20.2									20.2
Total	**177.8**	**5.4**	**11.7**	**4.5**	**14.3**	**4.8**	**4.9**	**2.2**		**225.6**
ASE MODS (ATIRCM) (AA0722)										
Advanced Threat Infrared Countermeasures (ATIRCM)			4.9		12.0	12.0	21.1	31.0	199.5	280.5
Total			**4.9**		**12.0**	**12.0**	**21.1**	**31.0**	**199.5**	**280.5**
GATM (AA0701)										
Global Air Traffic Management(GATM) - Fixed Wing			7.0	6.9	25.7	43.0	33.2	42.7	85.5	244.0
Global Air Traffic Management - Rotary Wing				3.2	28.5	27.2	36.9	27.4	15.7	138.9
Total			**7.0**	**10.1**	**54.2**	**70.2**	**70.1**	**70.1**	**101.2**	**382.9**
Grand Total	**4039.1**	**890.8**	**1056.6**	**1063.0**	**1412.7**	**1534.2**	**1573.3**	**1345.4**	**3230.0**	**16145.3**

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Item Nomenclature: ARL (TIARA) (A11500)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	82.1	29.7	39.3	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	164.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	82.1	29.7	39.3	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	164.2
Initial Spares												
Total Proc Cost	82.1	29.7	39.3	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	164.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Airborne Reconnaissance Low (ARL) has evolved from two complementary tactical airborne systems ARL-I (Imagery Intelligence IMINT), an Electro-optic reconnaissance and surveillance system, and ARL-C (communications intelligence COMINT), system which provides real-time highly accurate radio intercept and location. The ARL program integrates the capabilities of ARL-I and ARL-C into a single system which satisfies the requirements identified by validated SOUTHCOM Statements of Need (SON). The merger of these programs minimizes the acquisition and operational costs, increases availability, and optimizes flexibility resulting from the integration of the electro-optic and Radio Frequency (RF) sensors into a unified system. The primary sensors will be a Signal Intelligence (SIGINT) with precision Direction Finding (DF) capability and IMINT electro-optics for target identification and classification and multimode capability including wide area search Moving Target Indicator (MTI) and Synthetic Aperture Radar (SAR). ARL provides near real-time tactical airborne SIGINT and near real time IMINT collection support to Joint Task Force (JTF) Commanders. ARL is a multi-echelon level, multi-INT (combined SIGINT and IMINT) system, designed for forward deployment/force projection in Operations Other Than War (OOTW) to mid intensity conflict environments. ARL also conducts daily JCS Sensitive Reconnaissance Operations, is rapidly self-deployable to support contingency operations, and is the airborne Reconnaissance Surveillance Target Acquisition (RSTA) platform of choice for various non-DOD government agencies such as DEA and FEMA. ARL is currently providing an indications and warnings capability to U.S. Armed Forces in Korea. A November 1995 Department of the Army (DA) Directed Requirement validated the USARPAC/PACOM SON requirement for six ARL-Ms with Electronic Intelligence (ELINT) and MTI/SAR.

JUSTIFICATION: There is no planned program in FY 01 for ARL under this funding line.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft			P-1 Line Item Nomenclature: ARL (TIARA) (A11500)			Weapon System Type:			Date: February 2000		
Aircraft	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
AIRCRAFT Flyaway Costs													
Airframes/CFE													
ARL-M Systems 4&5 B-Kits for WKSTS		26480	2	13240	6636								
Modify Airframe to ARL-M Config w/Sensors		4766	1	4766									
Upgrade to IMINT Suite (HW) - ARL-I					2903	1	2903						
Y2K Retrofit					973								
Subtotal Flyaway Costs		**31246**			**10512**								
Non-Recurring Costs													
Tooling Equipment													
Other System Test													
Total Flyaway		**31246**			**10512**								
Support Cost													
Engineering Support		831			100								
Program Management (Admin Support)		3017			972								
GFE		358											
Fielding					1185								
Peculiar Training Equipment													
Engineering Change Orders		1222											
Other (Testing/Spares)		2660			250								
Subtotal Support Cost		**8088**			**2507**								
Gross P-1 End Cost		39334			13019								
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		39334			13019								
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares													
Mods													
TOTAL		**39334**			**13019**								

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
AIRCRAFT PROCUREMENT / 1 / Aircraft		ARL (TIARA) (A11500)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY98										
ARL-M Systesm 4&5 B-Kits for Workstations per aircraft/imagery sensors and high performance multimide radar	Cal Microwave, Belcamp, MD	C/FP	CECOM	Dec-97	Jul-99	2	13240	Yes	No	
Modify Airframes to ARL-M config w/sensors	Cal Microwave, Belcamp, MD	C/FP	CECOM	Feb-98	Feb-00	1	4766	Yes	No	
FY99										
Upgrade to IMINT Suites	Cal Microwave, Belcamp, MD	C/FP	CECOM	Feb-98	Feb-00	1	2903	Yes	No	

REMARKS:

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ARL (TIARA) (A11500)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 99												Fiscal Year 00										LATER
										Calendar Year 99														Calendar Year 00									
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
ARL-M Systems 4&5																													
Airframes with MTI/SAR	1	97	A	2		2										1					1									

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +	MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
1	California Microwave, Belcamp, MD	1	3	4		24	INITIAL		7	7	24	31	
							REORDER		4	2	22	24	
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						
							INITIAL						
							REORDER						

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft	P-1 Item Nomenclature: UTILITY F/W (MR) AIRCRAFT (A11300)
Program Elements for Code B Items:	Code: A / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	7	5	5	5	1		2	2	2	2	37	68
Gross Cost	21.8	21.8	22.0	26.8	5.3	0.0	14.3	14.3	15.1	15.1	259.0	415.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	21.8	21.8	22.0	26.8	5.3	0.0	14.3	14.3	15.1	15.1	259.0	415.6
Initial Spares												
Total Proc Cost	21.8	21.8	22.0	26.8	5.3	0.0	14.3	14.3	15.1	15.1	259.0	415.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
The Cessna UC-35 (Medium Range) aircraft is a fully integrated, two-pilot crew, 6-8 passenger capability, multi-engine system with worldwide self-deployability. It has advanced technology, while being a non-developmental, fixed wing aircraft system. The UC-35 aircraft is being fielded using the concept of Life Cycle Contractor Support.

JUSTIFICATION:
The FY 01 budget provides no funding for UC-35 procurement.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft			P-1 Line Item Nomenclature: UTILITY F/W (MR) AIRCRAFT (A11300)			Weapon System Type:			Date: February 2000		
Aircraft	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
AIRCRAFT Flyaway Costs													
Airframes / CFE					22,780	5	4,556	4900	1	4900			
Avionics					976			200					
A. GFE													
Other GFE													
Armament (FCR)													
ECO (All Flyaway Components)													
Other Costs (Halon)													
Subtotal Flyaway Costs					**23,756**			**5100**					
Non-Recurring Costs													
Tooling Equipment													
Other System Test													
Total Flyaway					**23,756**			**5100**					
Support Cost													
Engine (leftover A model)													
Airframe PGSE													
Engine PGSE													
Peculiar Training Equipment					249								
Publications Tech / Data					2			1					
Engineering Change Orders													
Other (specify) Net/ICS/Mtxsupt					1,426			192					
Subtotal Support Cost					**1,677**			**193**					
Gross P-1 End Cost					25,433		-	5293					
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost					25,433			5293					
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares					1,333								
Mods													
TOTAL					**26,766**			**5293**					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Item Nomenclature: GUARDRAIL COMMON SENSOR/ACS (TIARA) (A02005)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	710.6	4.9	12.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	729.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	710.6	4.9	12.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	729.9
Initial Spares	117.6	11.3	0.8									129.7
Total Proc Cost	828.2	16.2	13.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	859.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: GUARDRAIL is an Airborne Signal intercept and emitter location system designed to provide commanders with critical battlefield information via a Commanders' Tactical Terminal (CTT) and other DoD tactical and fixed communication systems . The Army's GUARDRAIL/Common Sensor Systems (GRCS) will have a highly flexible architecture to allow deployment to support contingency operations.

The GUARDRAIL/Common Sensor System (GRCS) integrates the improved GUARDRAIL V for communications intelligence (COMINT), the Communications High Accuracy Airborne Location System (CHAALS/CHALS-X) for COMINT and precision emitter location, and the Advanced QUICKLOOK (AQL) for electronics intelligence (ELINT) and precision emitter location into a single signal intelligence (SIGINT) system. The airborne elements are integrated into the RC-12K/N/P aircraft. Ground processing is conducted in the Integrated processing facility (IPF) . Key performance requirements include a real-time COMINT and ELINT collection and high accuracy target location capability in communications and radar frequencies. The Interoperable Data Link (IDL)/Multi-Role Data Link (MRDL) connects the airborne elements and the ground processing element. Additional funding was provided in FY98 to integrate production CHAALS hardware into GRCS System 3 in Korea and to fund additional embedded training efforts.

The current GRCS capabilities will be merged with those of the Airborne Reconnaissance Low (ARL) into a single airborne system (the Aerial Comon Sensor (ACS) program) capable of providing a rapid response information dominance capability to land component commanders in the early 21st century.

JUSTIFICATION: No Planned Program.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft			P-1 Line Item Nomenclature: GUARDRAIL COMMON SENSOR/ACS (TIARA) (A02005)			Weapon System Type:			Date: February 2000		
Aircraft	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
AIRCRAFT Flyaway Costs													
Airframes / CFE													
Avionics													
A. GFE													
Other GFE													
Armament (FCR)													
ECO (All Flyaway Components)													
Other Costs (Halon)													
Subtotal Flyaway Costs													
Non-Recurring Costs													
Tooling Equipment													
Other System Test													
Total Flyaway													
Support Cost													
Government In-House/Program Mgmt		103											
Test &Integration Facility		448											
Fielding/ICS		2535			1913								
CHAALS		2955											
Embedded Training		6459											
Engineering Change Orders													
Other (specify) Net/ICS/Mtxsupt													
Subtotal Support Cost		**12500**			**1913**								
Gross P-1 End Cost		12500			1913								
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost		12500			1913								
Plus: P-1 CY Adv Proc													
Other Non P-1 Costs													
Initial Spares		770											
Mods													
TOTAL		**13270**			**1913**								

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Item Nomenclature: UH-60 BLACKHAWK (MYP) (AA0005)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	1418	34	28	29	19	6	9	22	12	16		1593
Gross Cost	7352.7	288.0	321.5	293.0	199.3	81.2	110.8	233.7	159.6	222.1		9262.0
Less PY Adv Proc	2210.4	72.8	65.1	23.2		16.6	19.5	42.6	40.9	58.2		2549.3
Plus CY Adv Proc	2283.2	65.1	23.2		16.6	22.1	42.3	45.7	51.0			2549.3
Net Proc (P-1)	7425.5	280.4	279.6	269.8	215.8	86.8	133.6	236.9	169.7	164.0		9262.0
Initial Spares	410.0	5.4	2.4	3.5								421.3
Total Proc Cost	7835.5	285.8	282.0	273.3	215.8	86.8	133.6	236.9	169.7	164.0		9683.3
Flyaway U/C	5.0	7.9	10.3	8.8	8.8	8.3	9.1	9.3	10.5	11.8		5.4
Wpn Sys Proc U/C	5.5	8.6	11.6	10.2	10.5	13.5	12.3	10.6	13.3	13.9		6.1

DESCRIPTION

The UH-60 BLACK HAWK is a twin engine, single rotor helicopter that is designed to support the Army's air mobility doctrine for employment of land forces into the 21st century. The BLACK HAWK is used in the performance of the Air Assault, General Support and Aeromedical Evacuation missions. It is designed to carry a crew of four and 11 combat-equipped troops or an external load up to 9,000 pounds. It performs the missions of transporting troops and equipment into combat, resupplying the troops while in combat, and performing the associated functions of aeromedical evacuation, repositioning of reserves, and command and control.

JUSTIFICATION

FY01 funds are required for the procurement of aircraft, continuation of fielding, and to provide for PMO operations. The BLACK HAWK budget is predicated on firm fixed prices on the FY97-01 Airframe multiservice multiyear contract. A new multiservice multiyear contract is planned, with Economic Order Quantity funding commencing in FY 2001. Multiyear exhibits requesting multiyear authorization are being submitted in this budget request. FY 1999 funding (included in PM Administration) was utilized for completion of the General Officer Steering Committee (GOSC) led Utility Fleet study. The required 90 'dual missioning' aircraft will be procured by FY 2005. Further, total annual quantities have been coordinated with the United States Navy (USN), assuring contract compliance. Due to the absence of FY99 Advance Procurement funding, FY99 production funds were used for long lead GFE (including engines) to support FY00/01 aircraft. This has the effect of artificially reducing the unit price of these aircraft.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft			P-1 Line Item Nomenclature: UH-60A (BLACK HAWK) (MYP) (AA0005)			Weapon System Type:			Date: February 2000		
Aircraft Cost Elements	ID CD	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
AIRCRAFT Flyaway Costs													
Airframes / CFE					176276	29	6078	138950	19	7313	41328	6	6888
Engines/Accessories					43949	74	594	17364	28	620	4005	6	668
Avionics													
A. GFE					9441			8142			2610		
Other GFE					8313			1243			994		
Armament													
ECO (All Flyaway Components)								1339			691		
Other Costs (Mission Kits)					17								
Subtotal Flyaway Costs					**237996**			**167038**			**49628**		
Non-Recurring Costs													
Tooling Equipment													
Other Nonrecurring					16705								
Total Flyaway					**254701**			**167038**			**49628**		
Support Cost													
Airframe PGSE													
Engine PGSE													
Peculiar Training Equipment													
Publications Tech / Data					4153			4189			5344		
Engineering Change Orders													
PM Administration					29085			24614			22488		
Fielding					5081			3445			3745		
Subtotal Support Cost					**38319**			**32248**			**31577**		
Gross P-1 End Cost					293020			199286			81205		
Less: Prior Year Adv Proc					23219						16554		
Net P-1 Full Funding Cost					269801			199286			64651		
Plus: P-1 CY Adv Proc								16554			22127		
Other Non P-1 Costs													
Initial Spares					3481								
UH-60 Mods					22671			12962			3021		
Environmental Mods													
UH-60Q MEDEVAC													
TOTAL					**295953**			**228802**			**89799**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
AIRCRAFT PROCUREMENT / 1 / Aircraft		UH-60A (BLACK HAWK) (MYP) (AA0005)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Airframes / CFE										
FY99 (Aircraft/Production Engineering)	Sikorsky, Stratford CT	SSM/FP	AMCOM	Dec-98	Dec-98	29	6078	Yes	No	
FY00 (Aircraft/Production Engineering)	Sikorsky, Stratford CT	SSM/FP	AMCOM	Dec-99	Dec-00	9	7661	Yes	No	
FY00 (Aircraft)	Sikorsky, Stratford CT	SSM/FP	AMCOM	Mar-00	Feb-01	10	7000	Yes	No	
FY01 (Aircraft/Production Engineering)	Sikorsky, Stratford CT	SSM/FP	AMCOM	Dec-00	Jan-02	6	6888	Yes	No	
Engines/Accessories										
FY 99 (Engines/Production Engineering)	General Electric, Lynn MA	SS/FP	AMCOM	Dec-97	Feb-99	16	603	Yes	No	
FY 99 (Engines)	General Electric, Lynn MA	SS/FP	AMCOM	Dec-98	Mar-99	34	585	Yes	No	
FY99 (Engines)	General Electric, Lynn MA	SS/FP	AMCOM	Apr-99	Jul-00	18	600	Yes	No	
FY99 (Engines)	General Electric, Lynn MA	SS/FP	AMCOM	Mar-00	Jul-01	6	600	Yes	No	
FY 00 (Engines/Production Engineering)	General Electric, Lynn MA	SS/FP	AMCOM	Mar-00	Jul-01	28	620	Yes	No	
FY 01 (Engines/Production Engineering)	General Electric, Lynn MA	SS/FP	AMCOM	Dec-00	Mar-02	6	668	Yes	No	

REMARKS: March 2000 award expected to be for seven UH-60L aircraft and three HH-60L MEDEVAC aircraft. Both the March 2000 and December 2000 awards reflect the procurement of base contract aircraft as well as contract option aircraft.

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: UH-60A (BLACK HAWK) (MYP) (AA0005)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	FY99 OCT	FY99 NOV	FY99 DEC	CY99 JAN	CY99 FEB	CY99 MAR	CY99 APR	CY99 MAY	CY99 JUN	CY99 JUL	CY99 AUG	CY99 SEP	LATER
Airframes / CFE		FY97	A	34	9	25	3	3	3	3	3	2	2	2																4
		FY98	A	28	0	28						1	1	1	1	2	3	7	2	2	3	2	1	2							
		FY99	A	29	0	29															6				1	2	1	2	2	2	13
		FY00	A	19	0	19																									19
		FY01	A	6	0	6																									6
		FY02	A	9	0	9																									9
		FY03	A	22	0	22																									22
		FY04	A	12	0	12																									12
		FY05	A	16	0	16																									16
		FY98	N	1	0	1																								A	1
		FY99	N	5	0	5																								A	5
		FY00	N	17	0	17																									17
		FY01	N	15	0	15																									15
		FY02	N	16	0	16																									16
		FY03	N	24	0	24																									24
		FY04	N	24	0	24																									24
		FY05	N	20	0	20																									20
		FY97	AF	8	0	8								1	1	1	1	1	2	1											

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Sikorsky, Stratford, CT	18	60	96	

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL		8	3	6	9
	REORDER			3	6	9
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

Four aircraft procured with FY97 funding are scheduled to be delivered as UH-60Q /HH-60L MEDEVAC aircraft at a of one per month starting in March of CY 2000. Option for first 6 aircraft of FY99 buy awarded in the month delivered (Dec 98). Navy aircraft are to be modified to the CH-60 configuration. Leadtimes shown assume provision of advance procurement

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: UH-60A (BLACK HAWK) (MYP) (AA0005)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframes / CFE		FY97	A	34	30	4						1	1	1	1															
		FY98	A	28	28																									
		FY99	A	29	16	13	2	2	2	1	1					1	1	1	1	1										
		FY00	A	19	0	19			A												1	1	2	1	2	2	2	2	2	1	3
		FY01	A	6	0	6															A									6
		FY02	A	9	0	9																								9
		FY03	A	22	0	22																								22
		FY04	A	12	0	12																								12
		FY05	A	16	0	16																								16
		FY98	N	1	0	1			1																					
		FY99	N	5	0	5			1			1		1	1							1								
		FY00	N	17	0	17			A								1	1	1	1	1	1		1	1	1	2	1	1	1	3
		FY01	N	15	0	15															A								2	13
		FY02	N	16	0	16																								16
		FY03	N	24	0	24																								24
		FY04	N	24	0	24																								24
		FY05	N	20	0	20																								20
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Sikorsky, Stratford, CT	18	60	96	

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	8	3	6	9
	REORDER		3	6	9
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Four aircraft procured with FY97 funding are scheduled to be delivered as UH-60Q /HH-60L MEDEVAC aircraft at a of one per month starting in March of CY 2000. Option for first 6 aircraft of FY99 buy awarded in the month delivered (Dec 98). Navy aircraft are to be modified to the CH-60 configuration. Leadtimes shown assume provision of advance procurement

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: UH-60A (BLACK HAWK) (MYP) (AA0005)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03									LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframes / CFE		FY97	A	34	34																									
		FY98	A	28	28																									
		FY99	A	29	29																									
		FY00	A	19	16	3	1	1	1																					
		FY01	A	6	0	6				1	1	1	1	1	1															
		FY02	A	9	0	9			A							1	1		1	1		1	1	1	1	1					
		FY03	A	22	0	22															A							1	2	2	17
		FY04	A	12	0	12																									12
		FY05	A	16	0	16																									16
		FY98	N	1	1																									
		FY99	N	5	5																									
		FY00	N	17	14	3	1		1		1																			
		FY01	N	15	2	13	1	2	1	2	1	2	1	2	1															
		FY02	N	16	0	16			A							2	1	2	1	2	1	2	1	1	1	1	1				
		FY03	N	24	0	24															A							2	2	2	18
		FY04	N	24	0	24																									24
		FY05	N	20	0	20																									20
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Sikorsky, Stratford, CT	18	60	96	

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	8	3	6	9
	REORDER		3	6	9
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Four aircraft procured with FY97 funding are scheduled to be delivered as UH-60Q /HH-60L MEDEVAC aircraft at a of one per month starting in March of CY 2000. Option for first 6 aircraft of FY99 buy awarded in the month delivered (Dec 98). Navy aircraft are to be modified to the CH-60 configuration. Leadtimes shown assume provision of advance procurement

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: UH-60A (BLACK HAWK) (MYP) (AA0005)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 04												Fiscal Year 05										LATER
							Calendar Year 04												Calendar Year 05										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframes / CFE		FY97	A	34	34																								
		FY98	A	28	28																								
		FY99	A	29	29																								
		FY00	A	19	19																								
		FY01	A	6	6																								
		FY02	A	9	9																								
		FY03	A	22	5	17	2	2	1	2	2	2	2	2	2														
		FY04	A	12	0	12			A							1	1	1	1	1	1	1	1	1	1	1				
		FY05	A	16	0	16															A							1	1	2	12
		FY98	N	1	1																								
		FY99	N	5	5																								
		FY00	N	17	17																								
		FY01	N	15	15																								
		FY02	N	16	16																								
		FY03	N	24	6	18	2	2	2	2	2	2	2	2	2														
		FY04	N	24	0	24			A							2	2	2	2	2	2	2	2	2	2	2				
		FY05	N	20	0	20															A							2	2	1	15
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Sikorsky, Stratford, CT	18	60	96	

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	8	3	6	9
	REORDER		3	6	9
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Four aircraft procured with FY97 funding are scheduled to be delivered as UH-60Q /HH-60L MEDEVAC aircraft at a of one per month starting in March of CY 2000. Option for first 6 aircraft of FY99 buy awarded in the month delivered (Dec 98). Navy aircraft are to be modified to the CH-60 configuration. Leadtimes shown assume provision of advance procurement

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: UH-60A (BLACK HAWK) (MYP) (AA0005)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 06												Fiscal Year 07										LATER
							Calendar Year 06												Calendar Year 07										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframes / CFE		FY97	A	34	34																								
		FY98	A	28	28																								
		FY99	A	29	29																								
		FY00	A	19	19																								
		FY01	A	6	6																								
		FY02	A	9	9																								
		FY03	A	22	22																								
		FY04	A	12	12																								
		FY05	A	16	4	12	1	1	2	1	1	2	1	1	2														
		FY98	N	1	1																								
		FY99	N	5	5																								
		FY00	N	17	17																								
		FY01	N	15	15																								
		FY02	N	16	16																								
		FY03	N	24	24																								
		FY04	N	24	24																								
		FY05	N	20	5	15	2	2	1	2	2	1	2	2	1														
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Sikorsky, Stratford, CT	18	60	96	

MFR Number		ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
	INITIAL	8	3	6	9
	REORDER		3	6	9
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				
	INITIAL				
	REORDER				

REMARKS

Four aircraft procured with FY97 funding are scheduled to be delivered as UH-60Q /HH-60L MEDEVAC aircraft at a of one per month starting in March of CY 2000. Option for first 6 aircraft of FY99 buy awarded in the month delivered (Dec 98). Navy aircraft are to be modified to the CH-60 configuration. Leadtimes shown assume provision of advance procurement

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Item Nomenclature: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less PY Adv Proc												
Plus CY Adv Proc	2283.2	65.1	23.2	0.0	16.6	22.1	42.3	45.7	51.0	0.0		2549.3
Net Proc (P-1)	2283.2	65.1	23.2	0.0	16.6	22.1	42.3	45.7	51.0	0.0	0.0	2549.3
Initial Spares												
Total Proc Cost	2283.2	65.1	23.2	0.0	16.6	22.1	42.3	45.7	51.0	0.0	0.0	2549.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The Advance Procurement for the UH-60 BLACK HAWK contains funding for the airframe and engine contracts as well as for funding for Government Furnished Equipment (GFE) to support UH-60 aircraft and mission kit production. GFE includes such items as the Auxiliary Power Unit (APU), Hover Infrared Suppressor Subsystem (HIRSS), Crew Seats, and other miscellaneous equipment.

JUSTIFICATION:

Advance Procurement requested in FY98, FY00, and FY01 is for termination liability for aircraft on the FY97-01 multiservice multiyear contract and a new airframe contract planned for FY 2002-FY 2006, with EOQ funding of long lead items commencing in FY 2001. In addition, advance procurement is required for the procurement of GFE items, including the T700-GE-701C engine, the Auxiliary Power Unit (APU), Crew Seats, and the Hover Infrared Suppressor Subsystem (HIRSS). The Prime Contractor has waived the requirement for Advance Procurement funding in FY99 only.

Advance Procurement Requirements Analysis-Funding (P-10A)

First System Award Date:

First System Completion Date:

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

($ in Millions)

	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Comp	Total
End Item Quantity:			1,418	34	28	29	19	6	9	22	12	16		1,593
CFE Airframe	18	6	1406.8	40.0	12.3		12.0	10.8	26.6	31.0	34.0			1573.4
Engines	14	3	621.9	20.8	9.4		3.7	7.4	13.8	11.5	15.7			704.3
Avionics	Var	3	124.3											124.3
Auxiliary Power Unit	15	3	40.6	1.3	1.0		0.5	1.9	1.4		1.3			48.0
Armored Crew Seat	12	3	19.7	1.4					0.5	1.4				23.0
Hover Infrared Suppressor	14	3	28.1	0.8			0.4	2.0		1.9				33.1
Elastomeric Bearings	10	3	1.3	0.2										1.5
Other	Var	Var	40.5	0.6	0.5									41.6
Total Advance Procurement			2283.2	65.1	23.2		16.6	22.1	42.3	45.7	51.0			2549.2

Description:Leadtime shown is manufacturing (production) leadtime. 'When Required' reflects end item delivery starting in July, a Dec 31 contract award, and a three month dock time for GFE. CFE airframe is termination liability of long lead as well as economic order quantities. Engine, avionics, APU, crew seats HIRSS, and elastomeric bearings are items that are fully funded in advance.Other cost is for mission kits and contractor concurrent support of fully funded items. GFE Items funded in economic quantities when funding permits.

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

($ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2000 Qty	2000 Contract Forecast Date	2000 Total Cost Request	2001 Qty	2001 Contract Forecast Date	2001 Total Cost Request
UH-60L BLACK HAWK									
Airframe	18	1	2.000/1.196	6	Feb 00	12.0	9	Dec 00	10.8
Engine	14	2	.620/.620	6	Mar 00	3.7	12	Dec 00	7.4
Auxiliary Power Unit	15	1	.077/.077	6	Mar 00	0.5	25	Mar 01	1.9
Hover Infrared Suppressor	14	1	.063/.064	6	Mar 00	0.4	31	Mar 01	2.0
Total Advance Procurement						16.6			22.1

Description: Airframe cost in FY2000 is for termination liability on the current multiyear contract for both long lead (LLT) and Economic Order Quantity (EOQ) items, and reflects the lack of any prior advance funding for the last year of a multiyear contract. FY2001 airframe funds are for termination liability of an anticipated new multiservice multiyear contract. Engine requirements are being procured on an existing Indefinite Delivery, Indefinite Quantity (IDIQ) contract with currently priced options on deliveries through CY2000--additional option prices are planned for negotiation. Use of FY98 and FY99 funding has reduced the Advance Procurement requirement for engines. EOQ buys in FY99 impact the quantities required for the APU, Crew Seat, and Hover Suppressor.

Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

($ in Millions)

	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	To Comp	Total
Proposal w/o AP												
Then Year Cost		37	137	253	282	205	138	167	192	194	204	1809
Constant Year Cost		39	143	260	286	205	136	161	182	181	184	1777
Present Value		38	137	244	261	182	117	136	149	144	142	1550
AP Proposal												
Then Year Cost		37	134	244	269	195	132	161	185	188	198	1743
Constant Year Cost		39	139	251	273	195	130	156	176	174	178	1711
Present Value		38	134	235	249	173	113	131	144	139	137	1493
AP Savings (Difference)												
Then Year Cost			-3	-9	-13	-10	-6	-6	-7	-6	-6	-66
Constant Year Cost			-4	-9	-13	-10	-6	-5	-6	-7	-6	-66
Present Value			-3	-9	-12	-9	-4	-5	-5	-5	-5	-57

Remarks: Costs shown are total program outlays. The AP proposal represents the cost associated with the FY97-01 airframe multiyear contract and an anticipated multiyear contract commencing in FY 2001. Proposal without AP is the estimated cost for airframe single year contracts from FY 1997 through FY 2005.

Advance Procurement Requirements Analysis-Execution (P-10D)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

($ in Millions)

		1998					1999					2000		2001	
	PLT (mos)	Qty	Contract Forecast Date	Actual Contract Date	Total Cost Request	Actual Contract Cost	Qty	Contract Forecast Date	Actual Contract Date	Total Cost Request	Actual Contract Cost	Qty	Contract Forecast Date	Qty	Contract Forecast Date
UH-60L BLACK HAWK															
Airframe	18	12	Dec 97	Dec 97	12.3	12.3						6	Feb 00	9	Dec 00
Engine	14	12	Dec 97	Dec 97	6.7	9.4						6	Mar 00	12	Dec 00
Auxiliary Power Unit	15	12	Dec 97	Apr 98	1.0	1.0						6	Mar 00	25	Mar 01
Crew Seats	12	24	Dec 97		0.5										
Hover Suppresspr	14	12	May 98		0.8							6	Mar 00	31	Mar 01
Elastomeric Bearings	10	12	Dec 97		0.2										
Avionics	Var	12	Various		3.0										
Other	N/A	N/A	Dec 97	Jan 98	0.5	0.5									
Total Advance Procurement					25.0	23.2									

Description:Source of estimated dollars and award dates for FY 1998 is the FY98 President's Budget. Engine quantity procured was four greater than had been projected. Avionics and Elastomeric Bearings are now being requisitioned from the supply system. Other cost is planned for procurement out of the Buy line. Lack of advance procurement in FY99 reflects the plan (since reversed) to discontinue after the FY99 buy. Advance procuremment for the airframe is for termination liability. Airframe quantity in FY01 is for the total FY02-06 Army requirement (MYC).

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

($ in Millions)

	Total Program	FY 98 1997 Oct	Nov	Dec	1998 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Obl/Exp (Cum)	Ending Balance (Cum)
FY 98															
Obl Plan	24.4			23.5			.9							24.4	
Actual	23.2			21.7	.5			1.0						23.2	
Exp Plan															
Actual															
FY 99															
Obl Plan															
Actual															
Exp Plan															
Actual															
FY 00															
Obl Plan	16.6														16.6
FY 01															
Obl Plan	22.1														22.1

Narrative: Expenditure plans are not utilized.

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

($ in Millions)

	Starting Balance	FY 99 1998 Oct	Nov	Dec	1999 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Obl/Exp (Cum)	Ending Balance (Cum)
FY 98															
Obl Plan															
Actual															
Exp Plan															
Actual															
FY 99															
Obl Plan															
Actual															
Exp Plan															
Actual															
FY 00															
Obl Plan	16.6														16.6
FY 01															
Obl Plan	22.1														22.1

Narrative:

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

($ in Millions)

	Starting Balance	FY 00 1999 Oct	Nov	Dec	2000 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Obl/Exp (Cum)	Ending Balance (Cum)
FY 98															
Obl Plan															
Actual															
Exp Plan															
Actual															
FY 99															
Obl Plan															
Actual															
Exp Plan															
Actual															
FY 00															
Obl Plan	16.6					12.0	4.6							16.6	
FY 01															
Obl Plan	22.1														22.1

Narrative:

Advance Procurement Requirements Analysis-Obligations/Expenditures (P-10E)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 1 / Aircraft

P-1 Line Item Nomenclature / Weapon System: UH-60 BLACKHAWK (MYP) (ADV PROC) (AA0005)

($ in Millions)

	Starting Balance	FY 01 2000 Oct	Nov	Dec	2001 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Obl/Exp (Cum)	Ending Balance (Cum)
FY 98															
Obl Plan															
Actual															
Exp Plan															
Actual															
FY 99															
Obl Plan															
Actual															
Exp Plan															
Actual															
FY 00															
Obl Plan															
FY 01															
Obl Plan	22.1			18.2			3.9							22.1	

Narrative:

Exhibit P-40, Budget Item Justification Sheet											Date: February 2000	
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft						P-1 Item Nomenclature: GUARDRAIL MODS (TIARA) (AZ2000)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	559.4	0.0	14.3	43.5	18.7	22.6	28.1	33.7	29.9	13.7	0.0	764.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	559.4		14.3	43.5	18.7	22.6	28.1	33.7	29.9	13.7	0.0	764.0
Initial Spares	0.4	5.7	3.2	1.8	5.8			5.8				22.7
Total Proc Cost	559.8	5.7	17.6	45.3	24.5	22.6	28.1	39.5	29.9	13.7	0.0	786.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Guardrail is an Airborne signal intercept and emitter location system designed to provide tactical commanders with critical battlefield information via a Joint Tactical Terminal (JTT) and other DoD tactical and fixed communications systems. The Army's GUARDRAIL /Common Sensor System (GRCS) will have a highly flexible architecture to allow rapid deployment to support contingency operations.

The GRCS integrates the Improved GUARDRAIL V for communications intelligence (COMINT), the Communications High Accuracy Airborne Location System (CHAALS/CHALS-X) for COMINT and precision emitter location, and the Advanced QUICKLOOK (AQL) for electronics intelligence (ELINT) and precision emitter location into a single signal intelligence (SIGINT) system. The airborne elements are integrated into the RC-12K/N/P/Q aircraft. Ground processing is conducted in the Integrated Processing Facility (IPF). Key performance requirements include a real- time COMINT and ELINT collection and high accuracy target location capability in communications and radar frequencies. The Interoperable Data Link (IDL)/Multi-Role Data Link (MRDL) connects the airborne elements and the ground processing element. A satellite remote relay will provide rapid deployment capability .

JUSTIFICATION: FY01 funds procure a HMMWV based Minaturized -Integrated Processing Facility (Mini-IPF) to replace the existing GRCS System 4 trailer based IPF.

Exhibit P-40M Budget Item Justification Sheet											Date: February 2000
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft						P-1 Item Nomenclature: GUARDRAIL MODS (TIARA) (AZ2000)					
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
System 2 Block Upgrade											
1-96-666-6666	Operational	198.8	40.7	18.7	0.0	0.0	0.0	0.0	0.0	0.0	258.2
TIBS and TRIXS for GRCS											
1-96-777-7777	Operational	27.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.1
Mini-IPF											
1-00-111-1111	Operational	0.0	0.0	0.0	22.6	18.2	3.7	3.7	0.0	0.0	48.2
ELINT Pod Replacement (No P3a Set)											
1-01-111-1111	Operational	0.0	0.0	0.0	0.0	9.9	10.3	15.4	3.6	0.0	39.2
SIGINT Transistion Program (STP) (No P3a Set)											
01-03-111-1111	Operational	0.0	0.0	0.0	0.0	0.0	14.0	8.8	9.0	0.0	31.8
Joint Tactical Terminal (JTT) Integration (No P3a Set)											
1-03-222-2222	Operational	0.0	0.0	0.0	0.0	0.0	5.7	2.0	0.0	0.0	7.7
Sygate Integration (No P3a Set)											
1-04-111-1111	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1
System 4 Remote Relay											
1-99-111-1111	Operational	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Totals		225.9	43.7	18.7	22.6	28.1	33.7	29.9	13.7	0.0	416.3

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: System 2 Block Upgrade 1-96-666-6666

MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common Sensor System to RC-12 P/Q

DESCRIPTION / JUSTIFICATION:

The GUARDRAIL/Common Sensor System Block Upgrade is a modification to the System 2 Production Contract. It provides the required outyear efforts in support of the basic GR/CS System 2 program and major ECPs to include Advanced Tactical SIGINT Architecture (ATSA), Advanced Situations Analysis and Reporting Tools (ASART) and Direct Air to Satellite Relay (DASR) . The ECPs were awarded with prior year funds and included installation costs. These funds are the annualized costs required to support these efforts. These annualized costs include contractor and government engineering, interim contractor support, training, testing, fielding, and program management. There are no hardware quantity procurements planned.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
IPF Upgrade Award;	1QFY93	1QFY93
DASR Contract Awards;	2QFY94	4QFY94
ASART Contract Award;	4QFY94	4QFY94
System Fielding;	2QFY00	
Field Testing	3QFY00	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: N/A PRODUCTION LEADTIME: N/A

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): System 2 Block Upgrade 1-96-666-6666

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		99.1		14.8																113.9
Equipment, Nonrecurring		46.5																		46.5
Engineering Change Orders		2.5																		2.5
GFE/Aircraft Support		10.5		3.2		4.0														17.7
Training/Fielding		1.2		6.9		3.6														11.7
Support Equipment		1.9		1.8		1.8														5.5
Other		3.6																		3.6
Interim Contractor Support		1.0		4.1		4.2														9.3
Testing		7.0		4.1																11.1
Gov In House/Prg Mgmt ADM		11.5		2.3		2.3														16.1
Contractor Engineering		14.0		3.5		2.8														20.3
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost		198.8		40.7		18.7														258.2

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: TIBS and TRIXS for GRCS 1-96-777-7777

MODELS OF SYSTEMS AFFECTED: Guardrail Common Sensor Systems 1, 3 & 4

DESCRIPTION / JUSTIFICATION:

This modification provides a Tactical Information Broadcast Service (TIBS) capability for GR/CS Systems 1, 3 and 4. It provides Tactical Reconnaissance Intelligence Exchange System (TRIXS) capability for all GR/CS systems. TIBS will be integrated into the 3 IPFs allowing the IPFs to become TIBS producers. The TRIXS capability will allow broadcast and receive on both the collateral and SI networks for GRCS Systems 1, 3, and 4. The TRIXS capability will be accomplished by using CECOM 's Intelligence and Information Warfare Directorate (I2WD) as the system integrator. The hardware will be integrated into a shelterized HMMWV which will then be fielded to the existing GRCS Systems.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished		Planned	Accomplished
TIBS Contract Award:	3QFY96	4QFY96	TIBS Preliminary Acceptance:	3QFY98	4QFY98
TRIXS Contract Award:	2QFY98	2QFY98	TRIXS Preliminary Acceptance:	2QFY99	4QFY99
TIBS System Req't Review:	1QFY97	1QFY97	TIBS Final Acceptance Test:	4QFY00	
TRIXS System Req't Review:	2QFY98	2QFY98	TRIXS Final Acceptance Test:	4QFY00	
TIBS/TRIXS Qtr Reviews:	Quarterly				

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	6																				
Outputs						2	2	1	1												

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		6
Outputs																		6

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: N/A PRODUCTION LEADTIME: N/A

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): TIBS and TRIXS for GRCS 1-96-777-7777

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits	3	2.8																	3	2.8
Installation Kits, Nonrecurring		1.3																		1.3
Equipment	3	5.9																	3	5.9
Equipment, Nonrecurring		12.4																		12.4
Engineering Change Orders																				
Data		1.6																		1.6
Training Equipment																				
Support Equipment																				
Other		1.0																		1.0
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	6	2.1																	6	2.1
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	6	2.1																	6	2.1
Total Procurement Cost		27.1																		27.1

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Mini-IPF 1-00-111-1111

MODELS OF SYSTEMS AFFECTED: GUARDRAIL/Common Sensor System 3 & 4

DESCRIPTION / JUSTIFICATION:

This modification provides for two (2) miniaturized Integrated Processing Facilities (Mini-IPF) to replace two of the current IPFs which are comprised of four (40) forty foot vans. The Mini-IPFs support increased flexibility in deployment, reduce transportation requirements, and field a current and supportable baseline. The FY01 funds procure and shelterize all the hardware and software to build a fully functional Mini-IPF. FY02 funds will be used to build a second Mini-IPF. FY03 and FY04 funds will be used to field, and test both IPFs.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished		Planned	Accomplished
Mini-IPF #1			Mini-IPF #2		
Contract(s) Award	1QFY01		Contract(s) Award	1QFY02	
Integration	3QFY01		Integration	3QFY02	
CONUS Test	4QFY02		CONUS Test	4QFY03	
Field & OCONUS Test	2QFY03		Field & OCONUS Test	2QFY04	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 22 Months

Contract Dates:	FY 1999	FY 2000	FY 2001	Nov 00
Delivery Date:	FY 1999	FY 2000	FY 2001	Sep 02

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Mini-IPF 1-00-111-1111

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment							1	7.6	1	8.8									2	16.4
Engineering, Nonrecurring								8.3		2.9										11.2
Engineering Change Orders								0.4		0.4										0.8
Data/Documentation								0.5		0.3										0.8
Training								0.4		0.4										0.8
Support Equipment/GFE								0.8		0.8		0.2		0.2						2.0
Other/Satellite Support								0.4		0.4		0.2		0.2						1.2
Interim Contractor Support												0.4		0.4						0.8
Gov't In-House/Pgm Mgmt								1.3		1.3		0.5		0.5						3.6
Contractor Engineering								0.7		0.7		0.3		0.3						2.0
Fielding																				
Testing								0.5		0.5		0.3		0.3						1.6
Shelter Facilitization/Mod								1.7		1.7										3.4
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits											1	1.8							1	1.8
FY 2002 Eqpt -- kits													1	1.8					1	1.8
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment											1	1.8	1	1.8					2	3.6
Total Procurement Cost								22.6		18.2		3.7		3.7						48.2

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: System 4 Remote Relay 1-99-111-1111

MODELS OF SYSTEMS AFFECTED: Guardrail Common Sensor System 4

DESCRIPTION / JUSTIFICATION:

This modification provides for the purchase of a new satellite terminal to replace the existing Crazy Horse Satellite Terminal (provided in the short term modification, 1-99-222-2222, FY99), and other hardware to provide a mid-term Remote Relay (RR) capability to GUARDRAIL Common Sensor (GRCS) System 4. Efforts include purchase, test and integration of a minimum capability Transportable Medium Earth Terminal (TMET), Commercial Modems and other associated hardware at a CONUS site. This will allow access to some satellites providing coverage of the operational area for System 4. Hardware will be fielded to the OCONUS site, replacing the Crazy Horse hardware, and integrated with GRCS System 4, and tested to provide the local terminal Remote Relay capability to System 4. (the use of TMET supports the MINI-IPF effort in the long-term).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Contract Award:	2Q00	
TMET Delivery/Ship:	1Q01	
Integration and Test:	1Q01	
Final Acceptance:	1Q01	

Installation Schedule:

	Pr Yr	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs										1											
Outputs										1											

	FY 2005				FY 2006				FY 2007				FY 2008				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1
Outputs																		1

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 8 Months

Contract Dates:	FY 2000	Feb 00	FY 2000	FY 2001
Delivery Date:	FY 2000	Oct 00	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): System 4 Remote Relay 1-99-111-1111

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring			1	2.1															1	2.1
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders				0.2																0.2
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Government In House/Pgm Mgmt				0.3																0.3
Contractor Engineering				0.3																0.3
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits			1	0.1															1	0.1
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment			1	0.1															1	0.1
Total Procurement Cost				3.0																3.0

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: ARL MODS (AZ2050)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	5.8	6.6	2.4	29.1	20.9	15.8	0.0	80.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	5.8	6.6	2.4	29.1	20.9	15.8	0.0	80.6
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	5.8	6.6	2.4	29.1	20.9	15.8	0.0	80.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Airborne Reconnaissance Low (ARL) has evolved from two complementary tactical airborne systems ARL-I (Imagery Intelligence (IMINT)), an elecro-optic reconnaissance and surveillance system, and ARL-C (communications intelligence (COMINT)), system which provides real-time highly accurate radio intercept and location. The ARL program integrates the capabilities of ARL-I and ARL-C into a single system which satisfies the requirements identified by validated SOUTHCOM Statements of Need (SON). The merger of these programs minimizes the acquisition and operational costs,increases availability,and optimizes flexibility resulting from the integration of the electro-optic and Radio Frequency (RF) sensors into a unified system. The primary sensors will be a Signal Intelligence (SIGINT) with precision Direction Finding (DF) capability, IMINT electro-optics for target identification, and classification and multimode capability including wide area search Moving Target Indicator (MTI) and Synthetic Aperture Radar (SAR). ARL provides near real-time tactical airborne SIGINT and near real time IMINT collection support to Joint Task Force (JTF) Commanders. ARL is a multi-echelon level, multi-INT (combined SIGINT and IMINT) system, designed for forward deployment/force projection in Operations Other Than War (OOTW) to mid intensity conflict environments. ARL also conducts daily JCS Sensitive Reconnaissance Operations, is rapidly self-deployable to support contingency operations, and is the airborne Reconnaissance Surveillance Target Acquisition (RSTA) platform of choice for various non-DOD government agencies such as DEA and FEMA. ARL is currently providing an indications and warnings capability to U.S. Armed Forces in Korea. A November 1995 Department of the Army (DA) Directed Requirement validated the USARPAC/PACOM SON requirement for six ARL-Ms with Electronic Intelligence (ELINT) and MTI/SAR.

JUSTIFICATION: FY 01 funds will provide for further software retrofits and improvements to existing IMINT suites. FY01 also provides funding for the procurement and installation of Demand Assigned Multiple Access (DAMA) compliant radios mandated for Tactical Satellite communications on the two ARL-C aircraft.

Exhibit P-40M Budget Item Justification Sheet											Date: February 2000
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft						P-1 Item Nomenclature: ARL MODS (AZ2050)					
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
B-Kits for WKSTS											
1-00-111-1111	Operational	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Upgrade to IMINT Suite											
1-00-222-2222	Operational	0.0	0.0	2.6	4.6	0.5	0.0	5.1	0.0	0.0	12.8
Radar Improvements											
1-00-333-3333	Operational	0.0	0.0	1.6	0.0	0.0	1.6	0.0	0.0	0.0	3.2
Upgrade to DAMA Compliant Radio											
1-01-111-1111	Operational	0.0	0.0	0.0	2.0	1.9	3.0	0.0	0.0	0.0	6.9
COMINT Upgrades (No P3a Set)											
1-03-111-1111	Operational	0.0	0.0	0.0	0.0	0.0	5.1	3.0	3.0	0.0	11.1
Aircraft Standardization (No P3a Set)											
1-03-222-2222	Operational	0.0	0.0	0.0	0.0	0.0	5.9	5.0	5.0	0.0	15.9
Aircraft Survivability Equipment for ARL (No P3a Set)											
1-03-333-3333	Operational	0.0	0.0	0.0	0.0	0.0	5.8	5.8	5.8	0.0	17.4
Joint Tactical terminal (JTT) integration (No P3a Set)											
1-03-444-4444	Operational	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	6.0
Airspace 2000 (No P3a Set)											
1-03-555-5555	Operational	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0
Upgrade ARL-M4 & M5 IMINT Suites (No P3a Set)											
1-03-666-666	Operational	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	2.7
Totals		0.0	0.0	5.8	6.6	2.4	29.1	20.9	15.8	0.0	80.6

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: B-Kits for WKSTS 1-00-111-1111

MODELS OF SYSTEMS AFFECTED: ARL-M

DESCRIPTION / JUSTIFICATION:

Hardware was procured in FY 99 under ARL (TIARA), A11500. The ARL system will be upgraded to allow full Electronic Support Measures (ESM) capability for ARL M4. This will result in workstation hardware and software improvements to allow complete integration of the Superhawk ESM sensor suite. FY 00 funds the execution of the contract option for the installation of these efforts.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Contract Option Award	2QFY00	
System Status Review	2QFY00	
System Acceptance Test	4QFY00	
System Fielding	1QFY01	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs									1												
Outputs										1											

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1
Outputs																		1

METHOD OF IMPLEMENTATION:		ADMINISTRATIVE LEADTIME:		PRODUCTION LEADTIME:
Contract Dates:	FY 1999	FY 2000	Feb 00	FY 2001
Delivery Date:	FY 1999	FY 2000	Oct 01	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): B-Kits for WKSTS 1-00-111-1111

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Gov't In House/Program Mgmt						0.1														0.1
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits					1	1.5													1	1.5
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment					1	1.5													1	1.5
Total Procurement Cost						1.6														1.6

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Upgrade to IMINT Suite 1-00-222-2222

MODELS OF SYSTEMS AFFECTED: ARL-M

DESCRIPTION / JUSTIFICATION:

This modification provides for upgrades and improvements to the Imagery Intelligence (IMINT) suites of each of the ARL-M aircraft. These improvements will allow ARL to more effectively meet its imagery collection requirements established by both CINC SOUTHCOM and CINC PACOM. Improvements consist of both hardware and software modifications. In addition, special application sensors (Foliage Penetration (FOPEN) and Hyperspectral Imagery (HSI) will be integrated and tested to support the SOUTHCOM theater of operations.

In FY00 two ARL aircraft (M1 & M2) will have their IMINT suites upgraded to incorporate a 2nd Generation FLIR and improved Daylight Imaging System (DIS). In FY01 ARL aircraft (M3) will receive the IMINT suite upgrade and installation will occur on all three aircraft. All are currently operational in Korea. This will bring them up to the same IMINT baseline found on the more recently built ARL aircraft (M4 & M5). FY01 will consist of further software modifications to change video recording from analog to digital.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished	Planned	Accomplished
Contract Award	2QFY00		1QFY01	
System Status Review	2QFY00		1QFY01	
System Acceptance Test	2QFY01		4QFY01	
System Fielding	3QFY01		1QFY02	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs											1	1	1								
Outputs												1	1	1							

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		3
Outputs																		3

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 8 Months PRODUCTION LEADTIME: 13 Months

Contract Dates:	FY 1999		FY 2000	Feb 00	FY 2001	Oct 00
Delivery Date:	FY 1999		FY 2000	Mar 01	FY 2001	Nov 01

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Upgrade to IMINT Suite 1-00-222-2222

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits													5	0.6					5	0.6
Installation Kits, Nonrecurring														0.1						0.1
Equipment					2	2.2	1	1.1						1.1					3	4.4
Equipment, Nonrecurring																				
Software Modifications						0.2		0.2		0.4				2.2						3.0
Data														0.1						0.1
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Gov.'t In-House/Program Mgmt						0.1		0.1		0.1				0.2						0.5
Contractor Engineering						0.1		0.2						0.2						0.5
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits							1	1.0											1	1.0
FY 2001 Eqpt -- Kits							2	2.0											2	2.0
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits													5	0.6					5	0.6
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment							3	3.0					5	0.6					8	3.6
Total Procurement Cost						2.6		4.6		0.5				5.1						12.8

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Radar Improvements 1-00-333-3333

MODELS OF SYSTEMS AFFECTED: ARL-M

DESCRIPTION / JUSTIFICATION:

This modification provides for software improvements to the Moving Target Indicator (MTI)/Synthetic Aperture Radar (SAR) sensor. Specific FY00 improvements include increased SAR image resolution, additional radar modes of operation, improved MTI probability of detection. FY03 provides for further improvements through additional software algorithm uploads to improve image structure and target recognition.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Contract Award	2QFY00	
System Status Review	2QFY00	
System Acceptance Test	4QFY00	
System Fielding;	1QFY01	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: 12 Months

Contract Dates:	FY 1999	FY 2000	Feb 00	FY 2001
Delivery Date:	FY 1999	FY 2000	Feb 01	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Radar Improvements 1-00-333-3333

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Software Modifications						1.5						1.5								3.0
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Gov't In-House/Program Mgmt						0.1						0.1								0.2
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost						1.6						1.6								3.2

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Upgrade to DAMA Compliant Radio 1-01-111-1111

MODELS OF SYSTEMS AFFECTED: ARL- C and ARL -M

DESCRIPTION / JUSTIFICATION:

Modification replaces the current LST-5 radios in the ARL with Demand Assigned Multiple Access (DAMA). This modification provides for the upgrade of communications suites including all required hardware and software modifications. The modifications will be acomplished by contractor at the systems field site. In FY01 funds for the purchase of equipment and rack changes required for the two ARL-C aircraft. FY02 and FY03 fund modification of 3 ARL-M aircraft and installation of the radios and system flight test. Modification will allow the ARL to meet requirement that all DOD SATCOM radios be DAMA compliant.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	ARL-C		ARL-M (FY02)			ARL-M (FY03)	
	Planned	Accomplished		Planned	Accomplished	Planned	Accomplished
Contract Award	1QFY01		Contract Award	1QFY02		1QFY03	
System Status Review	2QFY01		System Review	2QFY02			
Airframe Modification	3QFY01		Airframe Modifications	3QFY02		2QFY03	
Radio integration and Test	1QFY02		Radio Integration And Test	1QFY03		4QFY03	
System acceptance ARL-C	1QFY02		System acceptance	1QFY03		1QFY04	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs														2				1			
Outputs														2				1			

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	2																	5
Outputs	2																	5

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 11 Months

Contract Dates:	FY 1999	FY 2000	FY 2001	Nov 00
Delivery Date:	FY 1999	FY 2000	FY 2001	Oct 01

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Upgrade to DAMA Compliant Radio 1-01-111-1111

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits							2	0.4	1	0.2	2	0.4							5	1.0
Installation Kits, Nonrecurring								0.3		0.2										0.5
Equipment								0.6		0.3		0.6								1.5
Equipment, Nonrecurring																				
Engineering Change Orders								0.1				0.1								0.2
Data								0.1		0.1		0.1								0.3
Training Equipment/training								0.1		0.1		0.1								0.3
Support Equipment								0.1		0.1		0.5								0.7
Other																				
Interim Contractor Support																				
Contractor Engineering								0.1		0.1		0.1								0.3
Gov't In-House/Progrm Mgmt								0.2		0.2		0.2								0.6
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits									2	0.6									2	0.6
FY 2002 Eqpt -- kits											1	0.3							1	0.3
FY 2003 Eqpt -- kits											2	0.6							2	0.6
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment									2	0.6	3	0.9							5	1.5
Total Procurement Cost								2.0		1.9		3.0								6.9

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Item Nomenclature: AH1F MODS (AA0150)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY1999	FY 2000	FY 2001	FY 2002	FY 2003	FY2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	1314.1	1.1	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	31.1	1350.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1314.1	1.1	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	31.1	1350.0
Initial Spares	92.3											92.3
Total Proc Cost	1406.4	1.1	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.5	31.1	1442.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The AH-1 is a single-engine, tandem seated helicopter with a maximum gross weight of 10,000 pounds and a T53-L-703 1800 SHP engine. The armament system consists of the M65 TOW Missile System, 20mm gun and Hydra-70 rockets.

JUSTIFICATION: AH-1F fleet will remain in the National Guard with fleet size of 250-350 through FY12. FY01 funds will be utilized to continue rewire of AH-1 fleet. Rewire improves RAM, lowers O&S cost and enhances safe operation. All modifications are complete except Rewire. Funding is also required for safety and sustainment modifications in addition to operational improvement modifications required to meet mission requirements. Failure to provide funding will result in degradation of the aircraft and mission package, impacting readiness and combat support capability. DoD regulations mandate that AMCOM provide sustainment support for the Cobra fleet for all branches of the service.

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: AH-64 MODS (AA6605)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	419.3	50.5	36.9	50.3	32.7	18.5	35.4	37.9	32.9	27.2	99.0	840.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	419.3	50.5	36.9	50.3	32.7	18.5	35.4	37.9	32.9	27.2	99.0	840.6
Initial Spares												
Total Proc Cost	419.3	50.5	36.9	50.3	32.7	18.5	35.4	37.9	32.9	27.2	99.0	840.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The AH-64 is a single main rotor, twin engine, tandem seat attack helicopter armed with HELLFIRE antitank missiles, 2.75 inch rockets, and 30MM gun. The AH-64 is capable of defeating armor in day, night, and adverse weather. The Target Acquisition Designation Sight (TADS) is housed in a turret on the nose of the AH-64 and consists of a TV, Forward Looking Infrared (FLIR), Direct View Optics, Laser Designator/ Rangefinder and Spot Tracker. The Pilot Night Vision Sensor (PNVS) is a FLIR which allows Nap-of-Earth operations at night by the pilot independent of the co-pilot/gunner's FLIR.

JUSTIFICATION: As the Army's primary Attack Helicopter, the AH-64 has been integrated in maneuver and fire plans of the combined arms team and will have the primary mission of destroying high value targets. The firepower, speed and agility of the AH-64 will provide a versatility to the combined arms team not otherwise available. Modifications are based on fleetwide reliability, availability, and maintainability (RAM) improvements and limited operational enhancements identified as a result of lessons learned during Operation Desert Storm, and Albania/Kosovo operations. Funding for FY01 buys the following modifications:

a. Airframe Modifications
b. TADS/PNVS Upgrades
c. Contingency Modernization Project (CMP)
d. Misc Mod less than $5M (No P3a set)

Exhibit P-40M Budget Item Justification Sheet											Date: February 2000
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft						P-1 Item Nomenclature: AH-64 MODS (AA6605)					
Program Elements for Code B Items			Code		Other Related Program Elements						
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Backup Control System (BUCS)											
1-86-01-2025	Unclassified	11.5	8.2	0.0	0.0	3.6	5.4	12.9	6.2	3.4	51.2
Fuel Control Warning Panel (No P3a Set)											
1-89-01-2063	Unclassified	7.8	1.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	10.0
Embedded GPS / Inertial NAvigation System (EGI) (No P3a Set)											
1-92-01-2072	Unclassified	82.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.6
H-11 Bolt Replacement (No P3a Set)											
1-92-01-2035	Safety	4.8	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.0	8.4
Airframe Modifications											
1-95-01-2007	Op/Log	7.4	8.3	9.5	4.8	15.8	14.7	4.9	8.6	7.0	81.0
Alternate Laser Code (No P3a Set)											
1-92-01-2033	Unclassified	32.3	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.9
TADS/PNVS I/II upgrades (No P3a Set)											
1-94-01-2004	Unclassified	57.9	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.8
TADS/PNVS Upgrades											
1-94-01-2005	Unclassified	5.4	6.7	6.3	7.0	7.2	7.4	7.9	8.8	24.8	81.5
Misc Mod less than $5.0M (No P3a Set)											
NA	Unclassified	265.6	5.6	13.2	2.6	3.5	3.0	4.0	2.7	35.9	336.1
ORT Conversion (No P3a Set)											
NA	Unclassified	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.9	45.1
Captive Boresight Harmonization Kit (CBHK) Upgrade (No P3a Set)											
NA	Unclassified	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5
Contingency Modernization Project (CMP)											
1-00-01-2001	Unclassified	0.0	0.0	3.2	4.1	4.4	6.5	2.3	0.0	0.0	20.5

Exhibit P-40M Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No.	P-1 Item Nomenclature
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	AH-64 MODS (AA6605)

Program Elements for Code B Items	Code	Other Related Program Elements

Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Totals		506.7	50.3	32.7	18.5	35.4	37.9	32.9	27.2	99.0	840.6

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Backup Control System (BUCS) 1-86-01-2025

MODELS OF SYSTEMS AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

Operational requirement. This modification is required to bring all AH-64 Apache aircraft to a BUCS active configuration. This modification includes a redesign of BUCS. The redesign will be accomplished as part of the Longbow remanufacture line beginning with Lot II incorporation. Lot I aircraft will be retrofitted. A total of 158 aircraft will be modified under the A model program through FY 01. An additional 214 aircraft will be retrofitted to a BUCS active configuration FY 02-07. This quantity represents those A model Apaches that will not be remanufactured to the Longbow configuration. Installation costs are included in contract and are not broken out separately.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Contract award was 30 Sep 97 for Lots 2-5 and retrofit of Lot 1 aircraft. First delivery of Lot 2 aircraft was Mar 98.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	84	12	12	14	15	15	6							6	6	7	7	9	9	10	10
Outputs	45	10	11	11	11	14	14	14	14	14				6	6	7	7	9	9	10	10

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	22	22	23	23	10	10	11	11					9	9				372
Outputs	22	22	23	23	10	10	11	11					9	9				372

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 11 Months

Contract Dates:	FY 1999	Dec 98	FY 2000	NA	FY 2001 NA
Delivery Date:	FY 1999	Nov 99	FY 2000	NA	FY 2001 NA

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Backup Control System (BUCS) 1-86-01-2025

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	24								26		38		90		42		18		238	
Installation Kits		2.0								3.6		5.4		12.9		6.2		3.4		33.5
Installation Kits, Nonrecurring																				
Equipment	68	2.9	66	4.6															134	7.5
Equipment, Nonrecurring		4.7		2.9																7.6
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other				0.1																0.1
Interim Contractor Support		1.9		0.6																2.5
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	45		43		4														92	
FY 1999 Eqpt -- Kits					52		14												66	
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits									26										26	
FY 2003 Eqpt -- kits											38								38	
FY 2004 Eqpt -- kits													90						90	
FY 2005 Eqpt -- kits															42				42	
TC Equip-Kits																	18		18	
Total Installment	45		43		56		14		26		38		90		42		18		372	
Total Procurement Cost		11.5		8.2						3.6		5.4		12.9		6.2		3.4		51.2

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Airframe Modifications 1-95-01-2007

MODELS OF SYSTEMS AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

Operational and logistical improvement. This modification provides for strengthening airframe components to withstand higher loading. Funding addresses three primary areas plus several additional areas susceptible to cracking. Specific modifications include slot closure, a single piece 530 and 547 frame, and elastomeric mounts. There will be 474 AH-64A aircraft retrofitted. In addition starting in FY 02, 214 AH-64A aircraft that will not be remanufactured into Longbows will be retrofitted with additional airframe modifications to include spider mount, wing pylon upgrade, FS176 upgrade, and T/R blade leading edge protection. Installation costs included in the contract and are not broken out separately.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Contract was awarded Nov 96 for ECP 1315 for retrofitting 474 AH-64A Apaches. An additional 214 AH-64A Apaches that are not being remanufactured to Longbow configuration will be retrofitted with additional airframe modifications starting in FY 02.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	31	10	10	10	10	24	24	25	25	31	32	32	32	25	25	25	26	26	26	27	27
Outputs	31	10	10	10	10	24	24	25	25	31	32	32	32	17	21	25	26	26	26	27	27

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	28	29	29	29	12	12	12	12	12	10								688
Outputs	27	27	27	29	13	13	13	12	12	12	12							688

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 11 Months

Contract Dates:	FY 1999	Dec 98	FY 2000	NA	FY 2001 NA
Delivery Date:	FY 1999	Nov 99	FY 2000	NA	FY 2001 NA

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Airframe Modifications 1-95-01-2007

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	71	6.1	98	7.7	127	9.5	53	4.8	118	15.8	115	14.7	26	4.9	45	8.6	35	7.0	688	79.1
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support		1.3		0.6																1.9
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	31		40																71	
FY 1999 Eqpt -- Kits					98														98	
FY 2000 Eqpt -- Kits							127												127	
FY 2001 Eqpt -- Kits									53										53	
FY 2002 Eqpt -- kits									36		82								118	
FY 2003 Eqpt -- kits											24		91						115	
FY 2004 Eqpt -- kits													19		7				26	
FY 2005 Eqpt -- kits															44		1		45	
TC Equip-Kits																	35		35	
Total Installment	31		40		98		127		89		106		110		51		36		688	
Total Procurement Cost		7.4		8.3		9.5		4.8		15.8		14.7		4.9		8.6		7.0		81.0

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: TADS/PNVS Upgrades 1-94-01-2005

MODELS OF SYSTEMS AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

Operational, and logistical improvement. Provide for system upgrade through new/updated hardware integration into Lots III thru XII TADS/PNVS systems. Facilitate maintainers access to TADS/PNVS systems thereby allowing for accelerated application of outstanding ECPs. Additionally, satisfies program growth and the life extension requirements and provides for offsite contractor support for upgrades/integration of hardware in the TADS/PNVS. This will also provide a single configuration TADS/PNVS to the Longbow. This is a critical AH-64D element in the Longbow remanufacturing effort. Also provides funding for the 214 A Model Apaches that will not be remanufactured into Longbows. Installation costs are included in contract and are not broken out separately.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Contract award was Dec 95. Date of first delivery was Jun 96.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	84	12	12	14	15	15	15	18	18	18	11	15	15	15	15	15	15	18	18	18	18
Outputs	45	9	10	12	12	12	13	15	15	15	15	15	15	17	17	15	15	15	15	15	16

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	18	18	18	18	23	23	24	24	16	16	17	17	16	17	16	17	51	743
Outputs	18	18	18	18	25	25	26	26	31	31	31	31	16	17	16	17	51	743

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 7 Months

Contract Dates:	FY 1999	Dec 98	FY 2000	Dec 99	FY 2001	Dec 00
Delivery Date:	FY 1999	Jul 99	FY 2000	Jul 00	FY 2001	Jul 01

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): TADS/PNVS Upgrades 1-94-01-2005

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	97		55		55		68		68		70		70		77		183		743	
Installation Kits		4.5		2.5		2.5		3.2		3.3		3.4		3.5		4.1		11.0		38.0
Installation Kits, Nonrecurring																				
Equipment				1.2		1.3		1.5		1.5		1.6		1.6		1.7		3.5		13.9
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other				2.5		2.5		2.3		2.4		2.4		2.8		3.0		10.3		28.2
Interim Contractor Support		0.9		0.5																1.4
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	45		43		9														97	
FY 1999 Eqpt -- Kits					46		9												55	
FY 2000 Eqpt -- Kits							51		4										55	
FY 2001 Eqpt -- Kits									60		8								68	
FY 2002 Eqpt -- kits											53		15						68	
FY 2003 Eqpt -- kits													57		13				70	
FY 2004 Eqpt -- kits															70				70	
FY 2005 Eqpt -- kits															19		58		77	
TC Equip-Kits																	183		183	
Total Installment	45		43		55		60		64		61		72		102		241		743	
Total Procurement Cost		5.4		6.7		6.3		7.0		7.2		7.4		7.9		8.8		24.8		81.5

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE: Contingency Modernization Project (CMP) 1-00-01-2001

MODELS OF SYSTEMS AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

The CMP addresses critical weapon system deficiencies surfaced during the recent Apache deployment to Albania. Modifications are based on three areas: (1) Operational deficiencies/shortcomings of ongoing, approved modifications; (2) Efforts to attack cost and reliability drivers under Total Ownership Cost Reduction, and, (3) Safety issues from TRADOC Systems Manager and other chartered teams.
These modifications are: (1) Update Fire Control Computer (FCC) (2)Aerial Rocket Control System (ARCS) software & hardware upgrade to correct ballistic solutions and prevent inadvertant rocket firing (3) Main Rotor Spar Enhancement (MRSE) to increase blade strength and reliability; (4) Aircraft Interface Assembly (AIA) enhancement.
The CMP represents a block upgrade (hence only one modification number), however the total modification varies on the configuration of each individual aircraft deployed (see mod schedule, next page).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

FCC contract award Feb 00, delivery Mar 00
ARCS contract award Feb 00, delivery Mar 00
MRSE contract award Feb 00, delivery Jun 00
AIA contract award Feb 00, delivery May 00

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: — ADMINISTRATIVE LEADTIME: Months — PRODUCTION LEADTIME: Months

Contract Dates:	See Above	FY 1999	FY 2000	FY 2001
Delivery Date:	See Above	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Contingency Modernization Project (CMP) 1-00-01-2001

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment						3.2		4.1		4.4		6.5		2.3						20.5
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
FCC																				
Input					40		70		70		70		60						310	
Output					40		70		70		70		60						310	
ARCS																				
Input					40		70		70		70		70						320	
Output					40		70		70		70		70						320	
MRSE																				
Input					24		33		40		80		20						197	
Output					24		33		40		80		20						197	
AIA																				
Input					20		70		66		70								226	
Output					20		70		66		70								226	
						3.2		4.1		4.4		6.5		2.3						20.5

Exhibit P-40, Budget Item Justification Sheet												Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft								P-1 Item Nomenclature: CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)				
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	16.4	48.4	59.5	80.4	114.9	117.1	148.9	172.7	196.6	230.0	131.3	1316.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	16.4	48.4	59.5	80.4	114.9	117.1	148.9	172.7	196.6	230.0	131.3	1316.3
Initial Spares												
Total Proc Cost	16.4	48.4	59.5	80.4	114.9	117.1	148.9	172.7	196.6	230.0	131.3	1316.3
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The CH-47 heavy lift helicopter is a day/night tandem rotor helicopter powered by two T-55 turbine engines. The CH-47 is the Army's only active heavy cargo helicopter and is a key element in the Contingency CORPS. The CHINOOK provides invaluable battlefield mobility for tactical vehicles, artillery and engineer equipment, personnel and logistical support equipment. Cargo Helicopters provide the logistical base for Air-Land operations. The CHINOOK also provides support of operations other than war.

JUSTIFICATION: FY 01 funding procures safety and operational modifications to the CH-47D fleet and trainers to maintain the latest configuration. Modifications are planned to fielded aircraft to incorporate safety and operational modifications to the CH-47D aircraft. These changes contribute to the effectiveness of heavy lift capability, maintainability, reliability, and aircraft/crew safety. The major modifications occurring during FY 01 are procurement of kits for Improved Battery, Conversion of the T55-L-712 to T55-GA-714A Engines, Auxiliary Power Unit Upgrade, and Extended Range Fuel System.

Exhibit P-40M Budget Item Justification Sheet										Date: February 2000	
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft					P-1 Item Nomenclature: CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)						
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Installation of Modification Kits Various											
Various	Operational/Safety	26.2	2.6	1.4	0.8	0.0	0.0	0.0	0.0	0.0	31.1
Improved Cross Shaft Adapters, Coupling & Bolts											
1-95-01-0817	Safety	0.0	0.0	0.0	1.1	0.2	0.2	0.0	0.0	0.0	1.6
Improved Battery											
1-95-01-0822	Operational	0.0	0.0	0.0	2.5	0.3	0.3	0.0	0.0	0.0	3.1
Engine Filtration System (No P3a Set)											
1-93-01-0807	Operational	0.0	0.0	0.0	0.0	5.1	7.0	8.4	20.2	32.4	73.0
Extended Range Fuel System											
1-97-01-822	Operational	7.1	6.5	6.2	6.9	18.9	18.6	17.6	0.0	0.0	81.7
Engine Upgrade to T55-GA-714A Configuration											
1-96-01-0828	Operational	91.0	69.3	103.4	102.3	123.3	146.7	170.6	209.8	98.9	1,115.4
APU Upgrade											
New	Safety	0.0	2.0	4.0	3.5	1.1	0.0	0.0	0.0	0.0	10.5
Totals		124.3	80.4	114.9	117.1	148.9	172.7	196.5	230.0	131.3	1,316.3

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE: Installation of Modification Kits Various

MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK and MH-47E

DESCRIPTION / JUSTIFICATION:

Modification kits procured with prior funding remain uninstalled due to deliveries, scheduling and funding. This funding will install these modification kits in the CH-47D aircraft and the MH-47E aircraft where appropriate. Installing all kits in all aircraft will result in more efficient maintenance, increased operational capability and safety improvements.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installations are ongoing.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	4474	418	418	418	419	300	300	300	302	185	185	185	185								
Outputs	4474		418	418	418	419	300	300	300	302	185	185	185	185							

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		8089
Outputs																		8089

METHOD OF IMPLEMENTATION: Contract — ADMINISTRATIVE LEADTIME: Months — PRODUCTION LEADTIME: Months

Contract Dates: FY 1999 — FY 2000 — FY 2001

Delivery Date: FY 1999 — FY 2000 — FY 2001

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE (Cont): Installation of Modification Kits Various

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	8089	20.4																	8089	20.4
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	4474	5.8	1673	2.6	1202	1.4	740	0.8											8089	10.7
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	4474	5.8	1673	2.6	1202	1.4	740	0.8											8089	10.7
Total Procurement Cost		26.2		2.6		1.4		0.8												31.1

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Improved Cross Shaft Adapters, Coupling & Bolts 1-95-01-0817

MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK, MH47E, and Trainers.

DESCRIPTION / JUSTIFICATION:

Type of Improvement - Safety. This modification is to improve Cross Shaft Adapters, Couplings, and Bolts. Field reports have identified failure of the steel cross shaft adapters. Corrosion pitting inside the bolt holes have served as stress risers for fatigue failures. Correction of this deficiency will reduce maintenance, resolve safety concerns, and increase reliability and maintainability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Production Contract Award	Jan 01	
First Production Hardware Delivery	Jan 02	
Field Retrofit Initiated	Jan 02	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs															78	78	78	58	58	58	59
Outputs																78	78	78	58	58	58

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		467
Outputs	59																	467

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 12 Months

Contract Dates: FY 1999 FY 2000 FY 2001 Jan 01

Delivery Date: FY 1999 FY 2000 FY 2001 Jan 02

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Improved Cross Shaft Adapters, Coupling & Bolts 1-95-01-0817

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Installation Kits							467	1.1											467	1.1
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits									234	0.2	233	0.2							467	0.5
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment									234	0.2	233	0.2							467	0.5
Total Procurement Cost								1.1		0.2		0.2								1.6

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Improved Battery 1-95-01-0822

MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK and Trainers.

DESCRIPTION / JUSTIFICATION:

Type of Improvement - Improved Operational Capability. Incorporation of a New Lead Acid Battery will reduce the frequent battery failure. Currently the aircraft battery has a frequent failure rate. This has been a major maintenance concern for the users.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Production Contract Award	Jan 01	
First Production Hardware Delivery	Sep 01	
Field Retrofit Initiated	Oct 02	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs														58	58	59	59	58	58	58	59
Outputs															58	58	59	59	58	58	58

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		467
Outputs	59																	467

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 8 Months

Contract Dates: FY 1999 FY 2000 FY 2001 Jan 01

Delivery Date: FY 1999 FY 2000 FY 2001 Sep 01

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Improved Battery 1-95-01-0822

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
A-kit							467	2.3											467	2.3
Batteries							467	0.2											467	0.2
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits									234	0.3	233	0.3							467	0.6
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment									234	0.3	233	0.3							467	0.6
Total Procurement Cost								2.5		0.3		0.3								3.1

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Extended Range Fuel System 1-97-01-822

MODELS OF SYSTEMS AFFECTED: CH-47D Chinook

DESCRIPTION / JUSTIFICATION:

Type of Improvement - Improved Operational Capability. The Extended Range Fuel System (ERFS) provides the CH-47D with up to 2400 gallons of auxiliary fuel for worldwide self-deployment or tactical forward area refueling. The typical ERFS installation includes three 800-gallon auxiliary fuel tanks fitted with crashworthy self-sealing bladders, pressure refueling capability, and fuel quantity probes. For mission flexibility, one, two, or three auxiliary fuel tanks can be installed. The B - Kit system components include tank assemblies, a fuel control panel, individual tank restraint systems, interconnecting self-sealing fuel hoses, fuel vent hoses, electrical cables, and a Forward Area Refueling Equipment (FARE) kit. The FARE kit provides the necessary components to permit tactical forward area refueling of combat weapons systems at two refueling points 200 feet from the helicopter. The A - Kit is the airframe modification kit. The ERFS can be installed or removed by a crew of four in less than 30 minutes by hand without the use of tools.
National Guard Dedicated Procurement has funded procurement and installation of 128 A-Kits, and 14 B-kits.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Production Contract Award	Aug 98	Aug 98
First Hardware Delivery	Jan 99	Jan 99
Testing Completed	Jun 99	Jun 99
Field Installation Initiated	Sep 99	Jun 99

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs				18	40	19	20	20	20	8	9	9	9	16	16	17	17	11	11	11	11
Outputs						58	19	20	20	20	8	9	9	9	16	16	17	17	11	11	11

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	10	11																303
Outputs	11	10	11															303

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 4 Months PRODUCTION LEADTIME: 6 Months

Contract Dates:	FY 1999	Feb 99	FY 2000	Feb 00	FY 2001	Feb 01
Delivery Date:	FY 1999	Aug 99	FY 2000	Aug 00	FY 2001	Aug 01

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Extended Range Fuel System 1-97-01-822

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PROCUREMENT																				
ERFS II B-KIT	11	5.9	7	4.1	7	4.2	8	5.2	25	16.5	25	16.8	24	16.5					107	69.1
ERFS II A KIT	80	0.9	57	0.7	35	0.5	66	0.9	44	0.6	21	0.3							303	3.8
Logistics		0.3		0.8		0.4		0.1		0.2		0.1		0.1						2.0
PM Admin Support				0.3		0.3		0.3		0.9		0.9		0.8						3.5
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits			58	0.6															58	0.6
FY 1999 Eqpt -- Kits					79	0.8													79	0.8
FY 2000 Eqpt -- Kits							35	0.4											35	0.4
FY 2001 Eqpt -- Kits									66	0.7									66	0.7
FY 2002 Eqpt -- kits											44	0.5							44	0.5
FY 2003 Eqpt -- kits													21	0.2					21	0.2
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment			58	0.6	79	0.8	35	0.4	66	0.7	44	0.5	21	0.2					303	3.2
Total Procurement Cost		7.1		6.5		6.2		6.9		18.9		18.6		17.6						81.7

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE: Engine Upgrade to T55-GA-714A Configuration 1-96-01-0828

MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK and Trainers

DESCRIPTION / JUSTIFICATION:

Type of Improvement - Improved Operational Capability. This modification will upgrade the T55-L-712 engine to T55-GA-714A configuration increasing power to allow the aircraft to carry its primary payloads under high altitude/temperatures. The CH-47D as configured does not meet its existing 1975 Required Operational Capability (ROC), i.e. 15,000 lbs. payload for 30 Nautical Miles radius at 4,000 feet/95 degrees Fahrenheit. The addition of numerous engineering changes to provide safety, the latest in operational technology, and improved communications has increased the empty weight of the aircraft. Upgrade of the T55-L-712 engine to T55-GA-714A configuration will meet the required operational capability. The program consists of: Converted Engines - two per aircraft plus spares, Engine Fielding Kits - two per aircraft, Airframe Mod Kits. - one per aircraft, the installation of the Airframe Kit and Converted Engines on the aircraft, and Logistic Support (training, fielding support).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Production Decision	Feb 97	Feb 97
Low Rate Initial Production Contract Award	Sep 97	Dec 97
First Production Hardware Delivery	Feb 99	Aug 99
Verification/Testing	Sep 99	Sep 99
Engine Fielding Initiated	Nov 99	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs				1	1	13	13	13	13	10	10	10	10	10	11	11	11	13	13	13	13
Outputs					1	1	13	13	13	13	10	10	10	10	10	11	11	11	13	13	13

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	15	15	15	15	19	18	18	18	16	16	16	17	13	14	14	14		442
Outputs	13	15	15	15	15	19	18	18	18	16	16	16	17	13	14	14	14	442

METHOD OF IMPLEMENTATION: Contract — ADMINISTRATIVE LEADTIME: 4 Months — PRODUCTION LEADTIME: 18 Months

Contract Dates:	FY 1999	Mar 99	FY 2000	Jan 00	FY 2001 Jan 01
Delivery Date:	FY 1999	Aug 00	FY 2000	Jun 01	FY 2001 Jun 02

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Engine Upgrade to T55-GA-714A Configuration 1-96-01-0828

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Converted Engines	95	60.0	73	51.2	108	76.1	108	77.4	130	94.8	152	113.9	171	130.9	213	166.5	100	79.8	1150	850.5
Engine Fielding Kits	96	15.9	59	7.0	86	10.3	86	11.1	104	12.9	122	15.4	146	18.9	150	19.8	35	5.0	884	116.2
Airframe Kits	50	6.2	25	3.1	50	6.0	43	5.5	52	6.8	60	8.0	73	9.9	75	10.4	14	2.0	442	57.7
PM Admin Support				3.3		4.3		4.0		4.0		3.4		3.9		5.4		3.6		31.9
Logistics		9.0		4.7		4.5		2.6		2.9		3.7		4.3		4.4		2.2		38.4
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits			2	0.1															2	0.1
FY 1999 Eqpt -- Kits					52	2.2													52	2.2
FY 2000 Eqpt -- Kits							40	1.7											40	1.7
FY 2001 Eqpt -- Kits									43	1.9									43	1.9
FY 2002 Eqpt -- kits											52	2.3							52	2.3
FY 2003 Eqpt -- kits													60	2.7					60	2.7
FY 2004 Eqpt -- kits															73	3.4			73	3.4
FY 2005 Eqpt -- kits																	120	6.4	120	6.4
TC Equip-Kits																				
Total Installment			2	0.1	52	2.2	40	1.7	43	1.9	52	2.3	60	2.7	73	3.4	120	6.4	442	20.7
Total Procurement Cost		91.0		69.3		103.4		102.3		123.3		146.7		170.6		209.8		98.9		1115.4

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: APU Upgrade

MODELS OF SYSTEMS AFFECTED: CH-47D CHINOOK

DESCRIPTION / JUSTIFICATION:

Type of Improvement - Safety. This modification will upgrade the airframe mounted Auxiliary Power Unit (APU). Field reports have identified three failures of the APU where the turbine wheel burst during operation. Engineering studies reveal that one pound pieces of metal may be thrown up to 1,000 feet upon APU turbine wheel failure. The failures are attributed to turbine fatigue due to the age and high usage of the APU. A new design has been approved for the APU turbine wheels that have a much greater fatigue life. Correction of this deficiency will preclude flight restrictions that will severely impact mission performance. The total buy of 540 kits includes the spare APUs that will be modified durring overhaul, the 467 installations are on fielded aircraft. The containment shield will is designed to contain pieces of the turbine wheels inside the APU should the wheels burst. The shields will be installed on aircraft to lift safety restrictions until the turbine wheels are replaced.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Production Contract Award	Aug 99	Aug 99
Delivery	Jan 00	
Installation	Jan 00	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs						37	37	38	38	45	45	45	45	34	34	34	35				
Outputs							37	37	38	38	45	45	45	45	34	34	34	35			

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		467
Outputs																		467

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 6 Months

Contract Dates:	FY 1999	Aug 99	FY 2000	Jan 00	FY 2001	Jan 01	
Delivery Date:	FY 1999	Jan 99	FY 2000	Sep 00	FY 2001	Sep 01	

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): APU Upgrade

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity			180	2.0	180	2.1	180	2.1											540	6.2
Containment Sheilds					340	0.6													340	0.6
PM Support				0.0		0.2		0.2		0.1										0.4
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits					150	1.1													150	1.1
FY 2001 Eqpt -- Kits							180	1.2											180	1.2
FY 2002 Eqpt -- kits									137	1.0									137	1.0
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment					150	1.1	180	1.2	137	1.0									467	3.3
Total Procurement Cost				2.0		4.0		3.5		1.1										10.5

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Item Nomenclature: CH-47 ICH (AA0254)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty							11	17	27	29	216	300
Gross Cost	0.0	0.0	0.0	0.0	0.0	57.6	158.6	192.6	293.1	290.4	2020.9	3013.4
Less PY Adv Proc							26.2	38.0	55.6	55.6	479.9	655.3
Plus CY Adv Proc						26.2	38.0	55.6	55.6	55.1	424.8	655.3
Net Proc (P-1)	0.0	0.0	0.0	0.0	0.0	83.8	170.4	210.2	293.1	289.9	1965.8	3013.4
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	0.0	83.8	170.4	210.2	293.1	289.9	1965.8	3013.4
Flyaway U/C							13.1	10.1	9.2	8.6	8.5	
Wpn Sys Proc U/C							14.4	11.3	10.9	10.0	9.4	

The Improved Cargo Helicopter (ICH) will be a modification to the current CH-47D helicopter to extend airframe service life, introduce an open electronic architecture that is compatible with the Army XXI digitized battlefield, and reduce Operating and Support (O&S) cost. This heavy lift helicopter program will be based on a remanufacture approach. The airframe will be rebuilt, mission capability improved, and vibrations reduced through airframe stiffening to provide for long term O&S cost reductions. Continued support, coverage, and sustainment of Maneuver, Fire Support, Air Defense, and Survivability mission areas will be provided by the ICH. Its mission is transportation of ground forces, class III/class V supplies, and battle critical cargo in support of all future contingencies.
A service life extension program, the ICH will sustain the aging CH-47D fleet and bridge the gap until the development of a follow-on aircraft. It will be fielded as a direct replacement for 300 of the CH-47D fleet.

Exhibit P-40M Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Item Nomenclature: CH-47 ICH (AA0254)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Improved Cargo Helicopter											
TBD	Operational/Safety	0.0	0.0	0.0	57.6	132.4	154.6	237.5	234.8	1,541.2	2,358.1
Totals		0.0	0.0	0.0	57.6	132.4	154.6	237.5	234.8	1,541.2	2,358.1

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE: Improved Cargo Helicopter

MODELS OF SYSTEMS AFFECTED: CH-47Ds

DESCRIPTION / JUSTIFICATION:

The Improved Cargo Helicopter (ICH) will be a modification to the current CH-47D helicopter to extend airframe service life, introduce an open electronic architecture that is compatible with the Army XXI digitized battlefield, and reduce Operating and Support (O&S) cost. This heavy lift helicopter program will be based on a remanufacture approach. The airframe will be rebuilt, mission capability improved, and vibrations reduced through airframe stiffening to provide for long term O&S cost reductions. Continued support, coverage, and sustainment of Maneuver, Fire Support, Air Defense, and Survivability mission areas will be provided by the ICH. Its mission is transportation of ground forces, class III/class V supplies, and battle critical cargo in support of all future contingencies.
A service life extension program, the ICH will sustain the aging CH-47D fleet and bridge the gap until the development of a follow-on aircraft. It will be fielded as a direct replacement for 300 of the CH-47D fleet.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
EMD Contract Award		May 98
LRIP I Contract Award	Dec 01	
LRIP II Contract Award	Mar 03	
MS III Production Decision	Jan 04	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs														2	3	3	3	4	4	4	5
Outputs																		2	3	3	3

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	6	7	7	7	7	7	7	8	6	6	7	7	6	6	7	7	164	300
Outputs	4	4	4	5	6	7	7	7	7	7	7	8	6	6	7	7	190	300

METHOD OF IMPLEMENTATION: Contract — ADMINISTRATIVE LEADTIME: 6 Months — PRODUCTION LEADTIME: 18/12 Months

Contract Dates: FY 1999 — FY 2000 — FY 2001

Delivery Date: FY 1999 — FY 2000 — FY 2001

INDIVIDUAL MODIFICATION																		Date	February 2000	
MODIFICATION TITLE (Cont):	Improved Cargo Helicopter TBD																			
FINANCIAL PLAN: ($ in Millions)																				
	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
PROCUREMENT																				
Recurring Production								7.7		90.0		114.1		157.0		158.8		1174.1		1701.7
Other Flyaway								41.5		27.8		20.2		35.1		33.8		222.5		380.9
Training Devices								4.2		10.2		12.6		36.5		33.7		70.3		167.5
Other Support								4.2		4.4		7.7		8.9		8.5		74.3		108.0
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost								57.6		132.4		154.6		237.5		234.8		1541.2		2358.1

Exhibit P-40, Budget Item Justification Sheet											Date: February 2000	
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft						P-1 Item Nomenclature: CH-47 ICH ADVANCE PROCUREMENT (AA0254)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less PY Adv Proc												
Plus CY Adv Proc						26.2	38.0	55.6	55.6	55.1	424.8	655.3
Net Proc (P-1)						26.2	38.0	55.6	55.6	55.1	424.8	655.3
Initial Spares												
Total Proc Cost						26.2	38.0	55.6	55.6	55.1	424.8	655.3
Flyaway U/C												
Wpn Sys Proc U/C												

The improved Cargo Helicopter (ICH) will be a modification to the current CH-47D helicopter to extend airframe service life, introduce an open electronic architecture that is compatible with the Army XXI digitized battlefield, and reduce Operating ad Support (O&S) cost. This heavy lift helicopter program will be based on a remanufacture approach. The airframe will be rebuilt, mission capability improved, and vibrations reduced through airframe stiffening to provide for long term O&S cost reductions. Continued support, coverage, and sustainment of Maneuver, Fire Support, Air Defense, and Survivability mission areas will be provided by the ICH. Its mission is transportation of ground forces, class III/class V supplies, and battle critical cargo in support of all future contingencies.
A service life extension program, the ICH will sustain the aging CH-47D fleet and bridge the gap until the development of a follow-on aircraft. It will be fielded as a direct replacement for 300 of the CH-47D fleet.

FY 01 funds Advanced Procurement to support deliveries of avionics and airframe components. Long Lead is required to provide funding for those parts, tooling, test equipment, and materiels which are lead time critical to the end item modification. Long lead funding is required to preserve the planned helicopter delivery schedule.

Advance Procurement Requirements Analysis-Funding (P-10A)

First System Award Date:	First System Completion Date:	Date:
		February 2000

Appropriation / Budget Activity/Serial No:	P-1 Line Item Nomenclature / Weapon System:
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	CH-47 ICH ADVANCE PROCUREMENT (AA0254)

($ in Millions)

	PLT (mos)	When Rqd (mos)	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	To Comp	Total
End Item Quantity:														
Avionics	13	14						15.4	23.8	35.2	35.9	35.8	279.3	425.4
Airframe	15	16						10.8	14.2	20.4	19.7	19.3	145.5	229.9
Total Advance Procurement								26.2	38.0	55.6	55.6	55.1	424.8	655.3

Description:

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Line Item Nomenclature / Weapon System: CH-47 ICH ADVANCE PROCUREMENT (AA0254)

($ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2000 Qty	2000 Contract Forecast Date	2000 Total Cost Request	2001 Qty	2001 Contract Forecast Date	2001 Total Cost Request
End Item									
Avionics	13	11	1.4				11	Nov 00	
Airframe	15	11	1.0				11	Nov 00	
Total Advance Procurement									

Description:

Advance Procurement Requirements Analysis-Present Value Analysis (P-10C)

Date: February 2000

Appropriation / Budget Activity/Serial No:	P-1 Line Item Nomenclature / Weapon System:
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	CH-47 ICH ADVANCE PROCUREMENT (AA0254)

($ in Millions)

	Pr Yrs	1997	1998	1999	2000	2001	2002	2003	2004	2005	To Comp	Total
Proposal w/o AP												
Then Year Cost												
Constant Year Cost												
Present Value												
AP Proposal												
Then Year Cost												
Constant Year Cost												
Present Value												
AP Savings (Difference)												
Then Year Cost												
Constant Year Cost												
Present Value												

Remarks: Contract not priced without advanced procurement.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Item Nomenclature: UTILITY/CARGO AIRPLANE MODS (AA0270)

Program Elements for Code B Items:

Code: A

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	8.5	0.7	6.3	10.0	9.6	11.9	16.0	15.4	9.9	9.9	140.0	238.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	8.5	0.7	6.3	10.0	9.6	11.9	16.0	15.4	9.9	9.9	140.0	238.2
Initial Spares												
Total Proc Cost	8.5	0.7	6.3	10.0	9.6	11.9	16.0	15.4	9.9	9.9	140.0	238.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This modification updates and modernizes the C-12, RC-12, UC-35, C-23, and C-26 aircraft communication, navigation, surveillance and safety equipment to current and evolving international standards. In addition it provides for the procurement and installation of military unique equipment such as Joint Precision Landing System (JPALS) and Joint Tactical Radio System (JTRS) components. These modifications ensure continued worldwide deployment capability, and safe operations into the 21st Century.

JUSTIFICATION: The FY 01 funds will be used for communications, navigation, and surveillance equipment that is supportive of future Air Traffic Management requirements. In addition, equipment included in the modifications will enhance the safety of passengers and crew. The upgrade will also permit the Army fixed wing aircraft to operate in compliance with other existing and emerging regulations. During deployments in support of Desert Storm/Desert Shield/Provide Comfort, only selected aircraft with non-standard modifications were capable of being deployed to and within the theater. As requirements for new avionics equipment continue, aircraft delays and airspace exclusion are likely for aircraft not properly equipped. Upgrade of obsolete communication and navigation systems will enhance reliability and maintainability by employing commercial systems thereby improving C-12 availability for mission requirements.

Exhibit P-40M Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No.	P-1 Item Nomenclature
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	UTILITY/CARGO AIRPLANE MODS (AA0270)

Program Elements for Code B Items	Code	Other Related Program Elements

Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Avionics System Cockpit Upgrade											
1-96-01-0612	Operational	15.5	10.0	9.6	11.9	16.0	15.4	9.9	9.9	140.0	238.1
Totals		15.5	10.0	9.6	11.9	16.0	15.4	9.9	9.9	140.0	238.1

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Avionics System Cockpit Upgrade 1-96-01-0612

MODELS OF SYSTEMS AFFECTED: C-12C, F3, D1, D2, F1, F2, J, R; RC-12K, N, P, Q; C-26; UC-35; C-23B,B+, RC-7

DESCRIPTION / JUSTIFICATION:

This effort will modernize 6 types of Fixed Wing aircraft communications, navigation, surveillance, and safety equipment to current international requirements, enhance fleet standardization, allow worldwide deployments and continued safe operations into the 21st Century. As currently equipped, the aircraft will not be suitable for worldwide deployment nor capable of using modern navigation and air traffic control facilities. The following equipment is included in this upgrade: Flight Management System, Displays, Terrain Awareness Warning System, 8.33kHz radios, APX 100 Mode S upgrade, Satellite Command (SATCOM), Traffic Collision Avoidance System II, Flight data recorder, data link capability, and Communications Management Unit. The preceding components reflect critically needed items. However, Air Traffic Management and DOD Navigation Warfare requirements are evolving and will require additional systems in the near future. The kit quantities reflected on the next page represent a wide variety of avionics kits with different mixes each fiscal year. Additionally, kit configurations vary based on the aircraft that they will be installed on. Consequently, kit and installation unit cost will vary significantly from year to year.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Development is not required for Avionics System Cockpit Upgrade.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	228		3	5	5		5	6	7		5	5	5	6	10	10	10	7	11	12	12
Outputs	228		3	5	5		5	6	7		5	5	5	6	10	10	10	7	11	12	12

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	4	8	8	8	8	14	14	14		4	4	5		2	2	3	284	734
Outputs	4	8	8	8	8	14	14	14		4	4	5		2	2	3	284	734

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Month

Contract Dates:	FY 1999	Jan 99	FY 2000	Jan 00	FY 2001	Jan 01
Delivery Date:	FY 1999	Mar 99	FY 2000	Mar 00	FY 2001	Mar01

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Avionics System Cockpit Upgrade 1-96-01-0612

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits	228	13.9	13	8.6	18	7.5	15	10.6	36	14.5	42	13.5	28	8.4	50	8.2	304	123.4	734	208.5
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data				0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.6		1.3
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt- 228 Kits	228	1.6																	228	1.6
FY 1999 Eqpt --13 Kits			13	1.3															13	1.3
FY 2000 Eqpt -- 18 Kits					18	2.0													18	2.0
FY 2001 Eqpt -- 15 Kits							15	1.2											15	1.2
FY 2002 Eqpt -- 36 Kits									36	1.4									36	1.4
FY 2003 Eqpt -- 42 kits											42	1.8							42	1.8
FY 2004 Eqpt -- 28 kits													28	1.5					28	1.5
FY 2005 Eqpt -- 50 kits															50	1.5			50	1.5
TC Equip -- 304 Kits																	304	16.0	304	16.0
Total Installment	228	1.6	13	1.3	18	2.0	15	1.2	36	1.4	42	1.8	28	1.5	50	1.5	304	16.0	734	28.3
Total Procurement Cost		15.5		10.0		9.6		11.9		16.0		15.4		9.9		9.9		140.0		238.1

Exhibit P-40, Budget Item Justification Sheet											Date: February 2000	
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft								P-1 Item Nomenclature: OH-58 MODS (AA0400)				
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	321.3	1.2	0.7	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.7	326.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	321.3	1.2	0.7	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.7	326.8
Initial Spares	1.2											1.2
Total Proc Cost	322.5	1.2	0.7	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.7	328.0
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The OH-58 A&C model helicopters are low silhouette, single rotor helicopter powered by a single gas turbine engine (T63-A-720) used for observation, scout, and command and control. This is a single pilot aircraft with provisions for a second pilot and the capability to carry two passengers or cargo in the rear cargo area. The OH-58C is an upgraded OH-58A model with a more powerful transmission, navigational upgrade and instrumentation. The OH-58A/C program consists of incorporation of the SINCGARS-VHF-FM radio, Combat Lighting for Night Vision, an External 3 Micron Engine Oil Filter and Global Positioning Systems.

JUSTIFICATION:

The OH-58 A&C fleet will be 389 aircraft through FY01 and range from 335 down to 298 through FY25. It provides for the major source to develop the combat skills portion of initial entry pilots training for Army Aviation, to perform FORSCOM training exercises and to equip the National Guard's Counter Drug Reconnaissance, Aerial Interdiction and Detection mission. FY 01 funding will be used to install modification kits procured in prior years. Funding is also required for safety modifications, in addition to operational improvement modifications required to meet mission requirements until final phaseout. Failure to provide funding will result in the degradation of the aircraft and mission, impacting readiness and combat support capability.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Item Nomenclature: AIRCRAFT LONG RANGE MODS (AA0560)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	6.1	0.9	0.8	1.1	0.8	0.8	0.7	0.7	0.8	0.8	4.0	17.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	6.1	0.9	0.8	1.1	0.8	0.8	0.7	0.7	0.8	0.8	4.0	17.5
Initial Spares												
Total Proc Cost	6.1	0.9	0.8	1.1	0.8	0.8	0.7	0.7	0.8	0.8	4.0	17.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This modification updates and modernizes the C-20F, C-20E and C-37 aircraft communications, and navigation equipment, enhancing the aircraft's capability for worldwide deployments. In addition, the C-20 and C-37 aircraft will receive additional operational capability with the installation of Joint Precision Landing Systems (JPALS) and Joint Tactical Radio Systems (JTRS). These aircraft support the Army's executive flight detachment at the three star and above level.

JUSTIFICATION: FY 01 funds will be used for upgrading C-20F Global Positioning Systems (GPS) and installation of communications equipment needed to support the crew in meeting the demands of the future air navigation system. Funds will be used to meet future avionics requirements resulting from worldwide navigation transition to Global Positioning System (GPS) enroute and approach systems, and Chairman of the Joint Chief of Staff Master Navigation Plan requirements.

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: LONGBOW (AA6670)
Program Elements for Code B Items:	Code:
Other Related Program Elements:	

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	535.3	389.2	490.9	610.1	789.2	744.9	844.9	868.7	796.0	452.4	841.6	7363.2
Less PY Adv Proc	117.0	16.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	61.8	449.9
Plus CY Adv Proc	133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Net Proc (P-1)	552.1	402.8	497.4	616.4	781.4	744.5	839.4	868.9	780.5	481.3	798.5	7363.2
Initial Spares		7.4	8.1	16.8	8.1	13.1	19.8	26.6	15.5	15.2	49.8	180.4
Total Proc Cost	552.1	410.2	505.5	633.2	789.5	757.6	859.2	895.5	796.0	496.5	848.3	7543.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELLFIRE missile. Three hundred twenty AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. Those AH-64D aircraft fielded without the FCR mission kits will have the T700-GE-701 engines, but can accept the FCR mission kit with T700-GE-701C engines. The Longbow Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly increasing weapon system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscurants. The weapon system will effectively engage and destroy advanced threat armor on the AirLand Battlefield of the late 1990s and into the next century. To be effective and survive on this future battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs).

JUSTIFICATION:

FY 01 funds buy 60 aircraft/44 FCRs, including associated support equipment, tooling, GFE, and training devices. Funding contains digitization requirements, including procurement of Digital Map capability required for Force XXI Battle Command Bridage & below (FBCB2) situational awareness ($12.1M in FY01). The 18 October 95 Acquisition Decision Memorandum authorized Longbow Apache to proceed into production and award of single year contract not to exceed quantity of 18 aircraft in FY96. A Multi-Year II Contract (FY01-FY05) will be signed in FY 00. Airframe quantities and funding reflect a multi-year (MY) scenario. Multiyear contracts for the FCR mission kit were signed in Nov 97. Quantities and funding reflect this multiyear scenario. 530 AH-64A Apaches will be remanufactured to the common AH-64D configuration with 320 being equipped with the FCR kits and 701C engines.

Initial spares includes FCR components

Exhibit P-40M Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Item Nomenclature: LONGBOW (AA6670)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Longbow Apache Mods											
NA	Operational	981.5	475.0	631.1	596.8	697.6	751.4	728.9	410.6	402.8	5,675.7
Apache Longbow FCR											
NA	Operational	269.6	98.3	114.9	112.6	112.3	87.8	37.4	27.5	377.0	1,237.4
Totals		1,251.1	573.3	746.0	709.4	809.9	839.2	766.3	438.1	779.8	6,913.1

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT /Modification of Aircraft / 12105682

P-1 Item Nomenclature: Apache Longbow Mods

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	24	24	44	66	74	60	66	72	72	28		530
Gross Cost	332.8	282.8	365.9	474.9	631.1	596.8	697.6	751.4	728.9	410.6	402.8	5675.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	332.8	282.8	365.9	474.9	631.1	596.8	697.6	751.4	728.9	410.6	402.8	5675.6
Initial Spares												
Total Proc Cost	332.8	282.8	365.9	474.9	631.1	596.8	697.6	751.4	728.9	410.6	402.8	5675.6
Flyaway U/C	15.9	9.1	6.5	6.2	6.5	7.7	7.8	7.9	8.5	12.8		8.6
Wpn Sys Proc U/C	17.0	12.0	8.9	7.6	9.0	10.4	11.0	10.8	10.5	15.2		11.3

DESCRIPTION:

The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELLFIRE missile. Three hundred twenty AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. Those AH-64D aircraft fielded without the FCR mission kits will have the T700-GE-701 engines, but can accept the FCR mission kit with T700-GE-701C engines. The Longbow Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly increasing weapon system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscurants. The weapon system will effectively engage and destroy advanced threat armor on the Air Land Battlefield of the late 1990s and into the next century. To be effective and survive on this future battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs).

JUSTIFICATION:

FY 01 funds buy 60 aircraft, including associated support equipment, tooling, GFE, and training. 530 AH-64A Apaches will be remanufactured to the common AH-64D configuration with 320 being equipped with the FCR kits and 701C engines. FY01 funding also buys Digital Map capability required for Force XXI Battle Command Bridage & below (FBCB2) situational awareness ($12.1M).

*Unit costs are annual procurement unit costs including advanced procurement.

Exhibit P-43, Simulator and Training Device Justification

Date: February 2000

Appropriation / Budget Activity/Serial No.	P-1 Item Nomenclature	Other Related Program Elements:	IOC Date:
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	LONGBOW (AA6670)		

Training Device by Type	Site	Delivery Date	Ready for Training Date	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
LCT	Ft. Hood/Multiple	Sep-99	Oct-99	20753	10351	29795	32475	50544	119851	79120	
LCTS	Ft. Hood	Sep-00	Oct-00		23248						
MAVWEST(L-7)	Ft. Eustis	Sep-99	Oct-99	25507		26941	14392	28784			
AEDST(L-6)	Ft. Eustis	Sep-99	Oct-99	30799	5745	18210	9000	37408			
TESS	CTC/Home Station	Jul-99	Aug-99	4583	7502	11212	22288	9800	4600	400	400
CLS					5038	4083	6430	10019	11924	14061	14370
Total				81642	51884	90241	84585	136555	136375	93581	14770

TRAINING SYSTEM DESCRIPTION:The Longbow Training Device Suite (TDS) includes the following: Longbow Crew Trainer (LCT), FY 96 start year (37 total through POM, 5 in EPP for a total of 42). Longbow Collective Training System (LCTS), FY 99 start year (1 total): Tactical Engagement Simulation System (TESS) “A” and “B” Kit, FY 98 start year (1/aircraft): Multiplex Avionics, Visionics, Weapons and Electrical Systems Trainer (MAVWEST), FY 97 start year (10 total): and Airframe, Engine, and Drivetrain Systems Trainer (AEDST), FY 97 start year (12 total). The cornerstone of the TDS is the LCT which is a dual-seat, pilot and co-pilot gunner (CPG) sustainment training device. The basis of issue is one device per operational battalion at selected MACOM locations (based upon Longbow Apache unit density), four at the USA Aviation Center (USAAVNC), and two at the Western Area Aviation Training Site (WAATS). The LCT will be deployed to meet the Aircraft Configuration of the gaining unit. Development and production of the LCT will precede development of the maintainer devices and will establish the technical baseline for the MAVWEST. The LCT will provide a transportable training and sustainment capability to the field. The LCT and the LCTS will be networkable through Distributed Interactive Simulation (DIS) protocols and interfaces and will be capable of interoperability with the Combined Arms Tactical Trainer (CATT) systems. TESS is composed of a TESS air component (consisting of an A & B kit), and a TESS ground component. TESS Air A kit consists of software and tactical displays and controls embedded on the aircraft to provide a cockpit interface to the "Plug and Play" TESS Air B kit. The TESS air component will simulate all on-board weapons engagements, and together with the TESS ground component provides a real time casualty assesstment for force-on-force collective training at the Combat Training Centers and at home station. Funding will provide for 530 TESS Air A kits, and 8 Bn sets consisting of 24 TESS Air B kits and 1 TESS ground component. The MAVWEST and AEDST are maintainer training devices for the US Aviation Logistics School (USAAL), Ft. Eustis.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT /Modification of Aircraft / 12105682

P-1 Item Nomenclature: Apache Longbow FCR

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	10	10	21	40	45	44	57	14			79	320
Gross Cost	85.5	89.6	94.6	98.3	114.9	112.6	112.3	87.8	37.4	27.5	377.0	1237.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	85.5	89.6	94.6	98.3	114.9	112.6	112.3	87.8	37.4	27.5	377.0	1237.5
Initial Spares												
Total Proc Cost	85.5	89.6	94.6	98.3	114.9	112.6	112.3	87.8	37.4	27.5	377.0	1237.5
Flyaway U/C	12.7	8.5	4.8	2.7	2.8	2.8	2.1	6.3			5.0	4.4
Wpn Sys Proc U/C	12.7	10.0	4.8	2.7	2.8	2.8	2.1	6.3			5.0	4.4

DESCRIPTION:

The Longbow Weapon System (AH-64D) consists of a modified AH-64 airframe, a Fire Control Radar (FCR) mission kit and a Longbow HELLFIRE missile. Three hundred twenty AH-64Ds will incorporate the General Electric T700-GE-701C engines for improved performance when carrying the FCR mission kits. Those AH-64D aircraft fielded without the FCR mission kits will have the T700-GE-701 engines installed, but can accept the FCR mission kit with T700-GE-701C engines. The Longbow Weapon System will provide the AH-64 with automatic target detection, classification, prioritization and a true fire-and-forget engagement capability, greatly increasing weapon system effectiveness and aircraft survivability. The weapon system will be employable day or night, in adverse weather and in obscurants. The weapon system will effectively engage and destroy advanced threat armor on the AirLand Battlefield of the late 1990s and into the next century. To be effective and survive on this future battlefield, the attack helicopter team will rapidly engage multiple targets with minimum exposure time, and deploy a system that is inherently resistant to threat countermeasures (CMs).

JUSTIFICATION:

FY 01 funds buy 44 FCRs. FCR quantities & funding reflect multiyear procurements for FY 98-02. 530 AH-64A Apaches will be remanufactured to the common AH-64D configuration with 320 being equipped with the FCR kits and 701C engines.

*Unit costs are annual procurement unit costs including advanced procurement.

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Longbow Apache Mods NA

MODELS OF SYSTEMS AFFECTED: Itemize names of systems in this text box.

DESCRIPTION / JUSTIFICATION:

The Longbow Weapon System (AH-64D) consists of a modified AH-64A airframe, a Fire Control Radar (FCR) mission kit and a Longbow Hellfire missile. The AH-64 aircraft will be modified with those changes necessary to effectively and efficiently integrate the Fire Control Radar. These changes consist of increased electrical power, expanded forward avionics bays, increased cooling, upgraded processors, Digital Map capability, MANPRINT crew station and 701C engines. These upgrades will significantly enhance warfighting capability and battlefield survivability by providing for advanced digitized avionics and the employment of true fire and forget engagement capablity.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Milestone 1B (DAB) Jul 89, Milestone II (DAB) Dec 90, Milestone III (DAB) Oct 95,
Multiyear Lot 1 contract award Aug 96,
First Production Delivery Mar 97,
First Unit Equipped Jul 98
IOC Accomplished Nov 98.
MYII Contract Award Mar 00.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 12 Months

Contract Dates:	FY 1999	Dec 98	FY 2000	Dec 99	FY 2001	Dec 00
Delivery Date:	FY 1999	Nov 99	FY 2000	Jan 01	FY 2001	Jan 02

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Longbow Apache Mods NA

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Quantity	92		66		74		60		66		72		72		28				530	
Recurring		602.2		334.3		364.6		325.3		353.7		389.2		380.9		187.4				2937.6
Other Flyaway		178.6		49.5		86.1		113.6		135.6		149.2		137.8		72.1		95.0		1017.5
Training Devices		145.0		51.9		90.2		84.6		136.5		136.4		93.6		14.8		66.7		819.7
Other Support		55.7		39.3		90.2		73.3		71.8		76.6		51.6		51.2		147.8		657.5
Second Gen FLIR														65.0		85.1		93.3		243.4
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost		981.5		475.0		631.1		596.8		697.6		751.4		728.9		410.6		402.8		5675.7

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Apache Longbow FCR NA

MODELS OF SYSTEMS AFFECTED: Itemize names of systems in this text box.

DESCRIPTION / JUSTIFICATION:

Longbow Fire Control Radar (FCR) is a millimeter wave target acquisition system developed for integration on the Apache . FCR provides three tactical modes of operation. Ground Targeting Mode (GTM), Air Targeting Mode (ATM), and Terrain Profile Mode (TPM). In GTM, the FCR provides the capability to rapidly scan up to approximately 50 square kilometers of the battlefield using selectable scan widths which are directionally controllable by the crew. In this mode, the FCR detects, locates, classifies, and prioritizes moving and stationary targets. Targets are classified as air defense units, track vehicles, wheel vehicles, helicopters, fixed wing aircraft, or unknown. It has the capability to detect stationary targets out to a range of six kilometers and moving targets out to eight kilometers. In the ATM, the FCR detects, classifies and prioritizes airborne targets. TPM provides terrain avoidance information to the crew for navigation during periods of reduced visibility. FCR does all the above day or night and during periods of reduced visibility caused by atmospheric conditions and/or battlefield obscuration. In both targeting modes, the FCR provides rapid target acquisition and engagement while reducing exposure and providing multiple target engagement capability when coupled with the fire-and-forget Longbow Hellfire Missile. The FCR is a fully integrated system on the AH-64D which provides enhanced situational awareness, survivability, and lethality.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Milestone 1B (DAB) Jul 89
Milestone II (DAB) Dec 90
Milestone III (DAB) Oct 95
Lot 1 contract award Mar 96
First Production Delivery Mar 97.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 14 Months

Contract Dates:	FY 1999	Nov 98	FY 2000	Nov 99	FY 2001	Nov 00	
Delivery Date:	FY 1999	Mar 00	FY 2000	Mar 01	FY 2001	Mar 02	

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Apache Longbow FCR NA

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Quantity	41		40		45		44		57		14						79		320	
Recurring		254.5		98.3		114.9		112.6		112.3		80.9						310.6		1084.1
Other flyaway												6.9		37.4		27.5		66.4		138.2
Other		15.1																		15.1
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost		269.6		98.3		114.9		112.6		112.3		87.8		37.4		27.5		377.0		1237.4

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: Apache Longbow

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY98 OCT	FY98 NOV	FY98 DEC	CY98 JAN	CY98 FEB	CY98 MAR	CY98 APR	CY98 MAY	CY98 JUN	CY98 JUL	CY98 AUG	CY98 SEP	FY99 OCT	FY99 NOV	FY99 DEC	CY99 JAN	CY99 FEB	CY99 MAR	CY99 APR	CY99 MAY	CY99 JUN	CY99 JUL	CY99 AUG	CY99 SEP	LATER
										Fiscal Year 98											Fiscal Year 99										
										Calendar Year 98											Calendar Year 99										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1. Airframe	1	99	A	66	0	66															A									66
	1	00	A	74	0	74																								74
	1	01	A	60	0	60																								60
2. Fire Control Radar (FCR)	2	99	A	40	0	40														A										40
	2	00	A	45	0	45																								45
	2	01	A	44	0	44																								44

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Boeing, Mesa AZ	48	72	120	
2	Longbow Limited Liability, Orlando FL	48	72	120	36

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		10	2	28	30
	REORDER		2	2	12	14
2	INITIAL		10	2	28	30
	REORDER		2	2	14	16
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: Apache Longbow

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00												Fiscal Year 01										LATER
										Calendar Year 00														Calendar Year 01									
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1 Airframe	1	99	A	66	0	66		4	4	4	4	5	5	5	5	5	5	5	5	5	5										
	1	00	A	74	0	74			A													5	5	5	5	5	5	5	5	5	29
	1	01	A	60	0	60															A										60
2. Fire Control Radar (FCR)	2	99	A	40	0	40						3	3	3	3	3	3	3	3	4	4	4	4									
	2	00	A	45	0	45		A																4	4	4	4	4	4	4	17
	2	01	A	44	0	44														A											44

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Boeing, Mesa AZ	48	72	120	
2	Longbow Limited Liability, Orlando FL	48	72	120	36

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		10	2	28	30
	REORDER		2	2	12	14
2	INITIAL		10	2	28	30
	REORDER		2	2	14	16
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 2000 / FY 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: Apache Longbow

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02												Fiscal Year 03										LATER
							Calendar Year 02												Calendar Year 03										
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1 Airframe	1	99	A	66	66																								
	1	00	A	74	45	29	5	6	6	6	6																		
	1	01	A	60	0	60						5	5	5	5	5	5	5	5	5	5	5	5						
2. Fire Control Radar (FCR)	2	99	A	40	40																								
	2	00	A	45	28	17	4	4	3	3	3																		
	2	01	A	44	0	44						4	3	4	4	4	4	4	4	4	3	3	3						

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Boeing, Mesa AZ	48	72	120	
2	Longbow Limited Liability, Orlando FL	48	72	120	36

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL		10	2	28	30
	REORDER		2	2	12	14
2	INITIAL		10	2	28	30
	REORDER		2	2	14	16
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

Exhibit P-40, Budget Item Justification Sheet											Date: February 2000	
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft								P-1 Item Nomenclature: LONGBOW (ADV PROC) (AA6670)				
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less PY Adv Proc												
Plus CY Adv Proc	133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Net Proc (P-1)	133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Initial Spares												
Total Proc Cost	133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

The Longbow program encompasses modifications to 530 AH-64A Apaches as well as upgrades to the aircraft systems for the AH-64D series to efficiently and effectively integrate the Fire Control Radar (FCR) and radar frequency (RF) missile. It provides an adverse weather fire-and-forget missile capability that increases the lethality and survivability. The Longbow Apache also retains the capability to fire the Semi-Active Laser Hellfire. The design enhancements increase operational capability of the crew and provide increased survivability and lethality while complying with Congressional direction to standardize the fleet to a common configuration.

JUSTIFICATION:

Five hundred thirty (530) AH-64A Apaches will be remanufactured to the common AH-64D configuration with 320 being equipped with the FCR kits and 701C engines. FY 01 funds Advance Procurement to support deliveries of airframes and FCRs. Long Lead funding is required to provide funding for those parts, tooling, test equipment, and materials which are lead time critical to the end item. Long lead funding is required to preserve the planned helicopter delivery schedule.

Advance Procurement Requirements Analysis-Funding (P-10A)

First System Award Date:	First System Completion Date:	Date:
		February 2000

Appropriation / Budget Activity/Serial No:	P-1 Line Item Nomenclature / Weapon System:

($ in Millions)

	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	To Comp	Total
End Item Quantity:														
Aircraft			24	24	44	66	74	60	66	72	72	28		530
FCR			10	10	21	40	45	44	57	14			79	320
Airframe	30	N/A	81.6	25.1	26.4	32.2	24.4	26.4	29.5	29.7	14.2			289.5
GFE - FCR Kit	30	29	52.2	5.3	10.5	11.0	11.0	8.6				43.1	18.7	160.4
Total Advance Procurement			133.8	30.4	36.9	43.2	35.4	35.0	29.5	29.7	14.2	43.1	18.7	449.9

Description:

Advance Procurement Requirements Analysis-Budget Justification (P-10B)

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Line Item Nomenclature / Weapon System: LONGBOW (ADV PROC) (AA6670)

($ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2000 Qty	2000 Contract Forecast Date	2000 Total Cost Request	2001 Qty	2001 Contract Forecast Date	2001 Total Cost Request
End Item									
Airframe	30	Various Components	N/A	60	Dec 99	24.4	66	Dec 00	26.4
GFE - FCR Kit	30	Various Components	N/A	44	Nov 99	11.0	57	Nov 00	8.6
Total Advance Procurement						35.4			35.0

Description: Multiyear airframe contract awarded Aug 96. Above "Contract Forecast Date" for airframe represents "Funding Action" dates for Lots VI and VII. Multiyear FCR contract awarded Nov 97. Above "Contract Forecast Date" represents "Funding Action" dates for Lots VI and VII.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Item Nomenclature: UH-1 MODS (AB0602)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	338.9	6.2	2.6	3.8	4.3	4.3	3.2	3.2	3.4	3.4	0.0	373.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	338.9	6.2	2.6	3.8	4.3	4.3	3.2	3.2	3.4	3.4	0.0	373.4
Initial Spares												
Total Proc Cost	338.9	6.2	2.6	3.8	4.3	4.3	3.2	3.2	3.4	3.4	0.0	373.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The UH-1 helicopter is used for transportation of personnnel, equipment and supplies, command & control, and medical evacuation. The UH-1 requires sustainment upgrades to ensure that it can operate on the modern battlefield and be logistically supportable through the year 2010. There are two models, the UH-1H and the UH-1V (MEDEVAC), most of which are located in National Guard units.

JUSTIFICATION: FY 01 funding will be used to procure and install navigation and communication avionics which are required because the currently installed avionics are quickly becoming logistically nonsupportable. Installation of modification kits is limited to those aircraft that will remain in the force structure through the year 2010.

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: UH-60 MODS (AA0480)
Program Elements for Code B Items:	Code:
Other Related Program Elements:	

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	437.3	12.4	28.7	22.7	13.0	3.0	38.8	54.1	99.5	164.4	0.0	873.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	437.3	12.4	28.7	22.7	13.0	3.0	38.8	54.1	99.5	164.4	0.0	873.7
Initial Spares												
Total Proc Cost	437.3	12.4	28.7	22.7	13.0	3.0	38.8	54.1	99.5	164.4	0.0	873.7
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:
The UH-60A/L/Q is a twin engine, single rotor helicopter that is used in the performance of the air assault, air cavalry and aeromedical evacuation missions. It is designed to carry a crew of four plus eleven combat-equipped troops or an external load up to 9,000 pounds. It performs the mission of transporting troops and equipment into combat, resupplying the troops while in combat and performing aeromedical evacuation, repositioning of reserves, and command and control. The UH-60A/L/Q is a major contributor across the continuum of military operations, i.e., civil disaster relief, drug intervention, national and humanitarian assistance.

JUSTIFICATION:
The modifications that will occur during FY01 are the procurement and installation of the Battery/Power Light Relocate and the Night Vision Goggles (NVG) Lighting Lower Console for approximately 1500 aircraft.

Note: Received $1.2 million in the FY 99 Kosovo Supplemental for four airborne AN/ASC-15C(V)2 Command and Control (C2) Consoles for Blackhawk helicopters.

Exhibit P-40M Budget Item Justification Sheet										Date: February 2000	
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft						P-1 Item Nomenclature: UH-60 MODS (AA0480)					
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS)											
1-94-01-1948	Safety	16.9	11.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	30.4
Halon Changeout (No P3a Set)											
1-92-01-1945	Legislative	0.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
Battery/Power Light Relocate											
1-94-01-1953	RM	0.3	2.0	5.5	2.6	9.1	3.4	0.0	0.0	0.0	22.9
NVG Lighting Lower Console											
1-90-01-1933	Operational	1.9	4.9	4.8	0.4	2.3	0.0	0.0	0.0	0.0	14.3
Major UH-60A/L Modification Program (No P3a Set)											
TBD	Operational	0.0	0.0	0.0	0.0	0.0	40.3	73.5	140.5	0.0	254.3
UH-60Q Medevac (No P3a Set)											
TBD1	Operational	9.4	0.0	0.0	0.0	27.4	10.4	19.3	18.9	0.0	85.4
Fire Hawk (No P3a Set)											
TBD2	Operational	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
UH-60L Safety/Operational Modifications (No P3a Set)											
TBD3	Safety/Operational	0.0	0.0	0.0	0.0	0.0	0.0	6.7	5.0	0.0	11.7
Minor Modification Programs (No P3a Set)											
TBD4	Operational	0.9	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Totals		31.5	22.7	13.0	3.0	38.8	54.1	99.5	164.4	0.0	427.0

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS) 1-94-01-1948

MODELS OF SYSTEMS AFFECTED: UH-60A/L Black Hawk

DESCRIPTION / JUSTIFICATION:

The Auxiliary Fuel Monitoring System (AFMS) shall provide the pilots with a fuel quantity display for each installed auxiliary fuel tank. Each tank will have its own fuel probe. The system will monitor external fuel for imbalance conditions that result in aircraft lateral center-of-gravity changes that exceed a certain designated value. If an imbalance is detected, the system will activate a light on the AFMS panel, the aux fuel segment light on the caution/advisory panel, and the master warning panel. Aircrews will have the capability to directly read the weight of all the auxiliary fuel that may be in each of the External Stores Support System (ESSS)/Extended Range Fuel System (ERFS) and store locations. This safety modification will continue to assure that a fully capable aircraft is available to support the combat mission requirement. Gauging will improve aircraft management of auxiliary fuel for everyday mission use of the system.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	90	100	150	200	200	100	94														
Outputs		50	100	100	100	100	125	150	150	59											

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		934
Outputs																		934

METHOD OF IMPLEMENTATION: OLR Teams ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

Contract Dates:	FY 1999	Jan 99	FY 2000	FY 2001
Delivery Date:	FY 1999	Mar 99	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Ext Stores Sup Sys (ESSS) Aux Fuel Monitoring Sys (AFMS) 1-94-01-1948

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	634	14.6	300	6.1															934	20.7
Installation Kits																				
Installation Kits, Nonrecurring		1.5																		1.5
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eq-634 Kits	90	0.8	544	4.7															634	5.5
FY 1999 Eqpt --300 Kits			106	1.0	194	1.7													300	2.7
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	90	0.8	650	5.7	194	1.7													934	8.2
Total Procurement Cost		16.9		11.8		1.7														30.4

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE: Battery/Power Light Relocate 1-94-01-1953

MODELS OF SYSTEMS AFFECTED: UH-60A/L and EH-60A/L Black Hawk

DESCRIPTION / JUSTIFICATION:

Provide the fleet with a low cost, low maintenance, longer life battery, which would replace the existing maintenance intensive Nickel Cadmium battery. Maintenance cost, both spares and man-hours, will be reduced and disposal cost minimized by providing a recyclable battery. The new battery will meet the EPA environmental health hazard restrictions.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs								50	50	50	50	100	100	125	150	150	150	150	150	150	28
Outputs								25	25	50	75	75	75	100	100	125	125	125	125	125	125

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1453
Outputs	125	53																1453

METHOD OF IMPLEMENTATION: OLR Teams — ADMINISTRATIVE LEADTIME: 9 Months — PRODUCTION LEADTIME: 8 Months

Contract Dates:	FY 1999	Jul 99	FY 2000	Mar 00	FY 2001 Mar 01
Delivery Date:	FY 1999	Jan 00	FY 2000	Oct 00	FY 2001 Oct 01

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Battery/Power Light Relocate 1-94-01-1953

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity			250	2.0	575	5.0	100	1.0	528	5.3									1,453	13.3
Installation Kits																				
Installation Kits, Nonrecurring		0.3																		0.3
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- 250 Kits					100	0.5	150	0.8											250	1.3
FY 2000 Eqpt -- 575 Kits							150	0.8	425	2.9									575	3.7
FY 2001 Eqpt -- 100 Kits									100	0.6									100	0.6
FY 2002 Eqpt -- 528 Kits									50	0.3	478	3.4							528	3.7
FY 2003 Eqpt -- Kits																				
FY 2004 Eqpt -- Kits																				
FY 2005 Eqpt -- Kits																				
TC Equip-Kits																				
Total Installment					100	0.5	300	1.6	575	3.8	478	3.4							1,453	9.3
Total Procurement Cost		0.3		2.0		5.5		2.6		9.1		3.4								22.9

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: NVG Lighting Lower Console 1-90-01-1933

MODELS OF SYSTEMS AFFECTED: UH-60A/L Black Hawk

DESCRIPTION / JUSTIFICATION:

This is a safety related requirement resulting from incident report findings stipulating the lack of the lower console lighting as a present factor in the incident. This safety related improvement will improve cockpit lighting which will increase the capability of the night vision goggles and eliminate the pilot's/co-pilot's need to transition from goggles to no-goggles (heads down) in order to see and operate the radio control heads. Until this is accomplished, the radios and equipment in the lower console must remain unlighted.

Existing cockpit lighting and relighted radio control panels will be upgraded to be in conformance with DOD Spec MIL-L-85762 and compatible with ANVIS-6 goggles. The proposed cockpit lighting upgrade will improve night operations capability.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	200	120	120	120	120	100	100	100	100	25	25	50	50	75	75	73					
Outputs	200	100	100	100	100	75	75	75	75	75	75	75	75	75	75	75	28				

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1453
Outputs																		1453

METHOD OF IMPLEMENTATION: OLR Teams ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 3 Months

Contract Dates:	FY 1999	Nov 98	FY 2000	Nov 99	FY 2001	Nov 00
Delivery Date:	FY 1999	Feb 99	FY 2000	Feb 00	FY 2001	Feb 01

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): NVG Lighting Lower Console 1-90-01-1933

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	200	1.3	600	3.3	450	3.5			203	1.5									1,453	9.6
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eq-200 Kits	200	0.6																	200	0.6
FY 1999 Eqpt -- 600 Kits			480	1.6	120	0.4													600	2.0
FY 2000 Eqpt -- 450 Kits					280	0.9	150	0.4	20	0.1									450	1.4
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- 203 Kits									203	0.7									203	0.7
FY 2003 Eqpt -- Kits																				
FY 2004 Eqpt -- Kits																				
FY 2005 Eqpt -- Kits																				
TC Equip-Kits																				
Total Installment	200	0.6	480	1.6	400	1.3	150	0.4	223	0.8									1,453	4.7
Total Procurement Cost		1.9		4.9		4.8		0.4		2.3										14.3

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: KIOWA WARRIOR (AZ2200)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	1295.3	196.9	51.0	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2018.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	1295.3	196.9	51.0	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2018.1
Initial Spares	179.9	1.4										181.3
Total Proc Cost	1475.2	198.3	51.0	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2199.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The OH-58D Kiowa Warrior is a two-seat, single-engine, observation helicopter with four main rotor blades and a thermal imaging system and laser range finder/designator in a Mast Mounted Sight situated above the main rotor system. The aircraft operates autonomously at standoff ranges providing armed reconnaissance, command and control, and target acquisition/designation for Apache helicopters and other airborne weapons platforms in day, night, and adverse-weather conditions. Commencing in FY91, fielded aircraft were retrofit with Air-to-Air Stinger and Air-to-Ground weapons; in-line production incorporation began with the last six aircraft of the FY89 procurement. Multi-Purpose Light Helicopter kits provide rapid deployment capability. A Control Display System processor modification replaced three processors with two Joint Integrated Avionics Working Group standard 80960 processors. Some Crew Station Mission Equipment Training (CSMET) Devices have been procured to support flight crew training. Efforts have been initiated to combat the encroaching obsolescence of the Mast Mounted Sight and to incorporate the capabilities of a Switchable Eye-Safe Laser Rangefinder Designator (SELRD). The Safey Enhancement Program (SEP) was initiated in FY96 to incorporate R3 engines, crashworthy crew seats, a supplemental restraint system, digitization, and improved weapons interface. The SEP improves recognition and identification of emergency situations; reduces pilot workload during emergency maneuvers; significantly improves the crashworthiness of the airframe thus improving crew survivability; improves engine reliability, reducing the probability of engine failure and exposure to emergency autorotations; and adds digitization capabilities. Partial SEP improvements had been incorporated into the later lots of Bell Helicopter's remanufacture/retrofit modification lines; those aircraft will complete SEP modifications through field retrofit activities. Other fielded Kiowa Warrior aircraft are being SEP modified via a combination of efforts on the contractor's SEP modification line and through field retrofit.

JUSTIFICATION: Modification efforts allow the Kiowa Warrior to safely serve as the Army's night, armed reconnaissance aviation capability until RAH-66 fielding begins and to complement Comanche throughout its projected life with gradual displacement. The FY01 program continues the SEP.

Exhibit P-40M Budget Item Justification Sheet										Date: February 2000	
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft					P-1 Item Nomenclature: KIOWA WARRIOR (AZ2200)						
Program Elements for Code B Items			Code		Other Related Program Elements						
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Crew Station Mission Equipment Trainer (CSMET)											
TBD 3	Training	2.4	9.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	13.6
Safety Enhancement Program											
TBD 4	Safety	136.9	36.2	38.6	41.8	42.3	42.3	31.4	31.4	195.1	596.0
Digitization (No P-3a Set)											
TBD 5	Operational	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
Mast Mounted Site (MMS) (No P-3a Set)											
TBD 6	Operational	1.4	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Training Devices (No P-3a Set)											
TBD 7	Training	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Remanufacture (No P-3a Set)											
TBD 1	Operational	909.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	910.1
Retrofit (No P-3a Set)											
1-88-01-2103	Operational	480.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	481.3
Halon Fire Extinguisher (No P-3a Set)											
TBD 2	Congressional	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
											0.0
											0.0
											0.0
TOTALS		1,543.2	48.7	41.9	41.8	42.3	42.3	31.4	31.4	195.1	2,018.1

INDIVIDUAL MODIFICATION | Date: February 2000

MODIFICATION TITLE: Safety Enhancement Program TBD 4

MODELS OF SYSTEMS AFFECTED: OH-58D Kiowa Warrior

DESCRIPTION / JUSTIFICATION:

The Safety Enhancement Program (SEP) incorporates multiple improvements to resolve safety issues and to equip the airframe to perform as a digitized platform interfacing with the tactical internet. The R3 Engine increases reliability and control responsiveness and overcomes the rotor droop anomaly by providing faster response time to power demands. The accompanying Improved Master Controller Processor Unit (IMCPU) provides 100% growth capability for memory and throughput while reducing aircraft empty weight and operating and support costs. IMCPU will enable Improved Data Modem, Battlefield Combat Identification System, Improved Navigation System/Global Positioning System, Digital Map, etc. SEP Lot 4 and beyond will incorporate IMCPUs with Joint Variable Message Format (JVMF) capability; this will support fielding to First Digitized Division (FDD) and First Digitized Corps (FDC). Energy Attenuating seats are being incorporated for crew safety in case of vertical and horizontal impacts. Air bags will increase crew protection in all modes of flight. A total of 270 of the 387-aircraft fleet will receive these safety modifications; 77 of these aircraft have been partially SEP equipped in the Bell Helicopter remanufacture and retrofit lines; additional SEP equipment will be applied to them via field retrofit. The remaining aircraft will receive SEP modifications at the contractor's facility and will have the seats and air bags installed as field retrofits.

Installation Schedule data below not provided. Majority of aircraft will be partially block modified at Bell Helicopter Textron facilities; however, not all aircraft will receive the complete complement of modifications at that facility. Some aircraft will receive portions of the modification efforts via field retrofit; and similarly, not all field retrofit aircraft will receive all field retrofit modifications.

Installation data on following page separately identifies quantities and dollars for the number of aircraft modified in each Bell Helicopter Textron lot plus quantities and dollars for the individual modification kit installations.

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: Kr Line & Fld Retrofi | ADMINISTRATIVE LEADTIME: 4 Months | PRODUCTION LEADTIME: 11 Months

Contract Dates:	FY 1999	Feb 99	FY 2000	Mar 00	FY 2001	Jan 01
Delivery Date:	FY 1999	Jan 00	FY 2000	Feb 01	FY 2001	Dec 01

MODIFICATION TITLE (Cont): Safety Enhancement Program TBD 4

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Aircraft Modified - Bell	28		28		22		22		21		23		20		29		117	190.7	310	190.7
Hardware Nonrecurring		10.7		2.8																13.5
Hardware Recurring:																				
(Contracts do not break out)		31.7		14.0	(Contracts include installation)															45.7
A-Kits - Bell (incl SRS)	28		28		22	3.1	22	4.4	21	4.2	23	4.8	20	3.9	29	4.6			193	25.0
B-Kits-Helmet Cable/ICS	28		28		22	0.3	22	0.4	21	0.3	23	0.4	20	0.3	29	0.5			193	2.2
A/B-Kits-Crashworthy Seats	28		28																56	
Seats for Field Installs(A/B)	106	4.8			51	2.9	85	5.0	55	3.2	9	0.6							306	16.5
Airbags for Field Installs							110	3.3	94	2.9	118	3.6	72	2.2					394	12.0
Govt-Furnished Equip (GFE):																				
Processor (IMCPU)	69	19.6	28	4.3	18	4.2	18	4.3	18	4.3	20	4.9	20	5.0					191	46.6
R3 Engines/Containers	105	45.7	20	5.9	32	11.5	15	5.7	17	6.8	9	3.8							198	79.4
Other GFE		0.1				1.0		1.7		1.6		2.3		2.0		1.5				10.2
Engineering Change Orders				1.0		0.5		0.5		0.5		0.5		0.5		0.4				3.9
Project Management/Admin		16.5		3.8		4.3		4.3		4.3		4.7		4.4		5.9				48.2
Aircraft Prep		5.7		2.9		3.5		2.9		2.9		3.0		2.9		3.0				26.8
Fielding				0.1		1.5		2.8		4.5		4.8		4.0		4.2		3.9		25.8
Training/Training Devices				0.3								0.9				2.5				3.7
Other		2.1		1.1		0.9		1.0		1.3		1.4		1.1		1.7		0.5		11.1
Installation of Hardware																				
FY 1998 & Prior Eqpt-28 A/C	28	(BHTI contract includes installation costs in Hardware Recurring - see above.)																	28	
FY 1999 Eqpt - 28 Line A/C			28	(BHTI contract includes installation costs in Hardware Recurring - see above.)															28	
FY 2000 Eqpt - 22 Line A/C					22	4.7													22	4.7
FY 2000 Eqpt - 27 Fld Instl					27	0.2													27	0.2
FY 2001 Eqpt - 22 Line A/C							22	4.7											22	4.7
FY 2001 Eqpt - 116 Fld Instl							116	0.8											116	0.8
FY 2002 Eqpt - 21 Line A/C									21	4.6									21	4.6
FY 2002 Eqpt - 139 Fld Instl									139	0.9									139	0.9
FY 2003 Eqpt - 23 Line A/C											23	5.2							23	5.2
FY 2003 Eqpt - 226 Fld Instl											226	1.4							226	1.4
FY 2004 Eqpt - 20 Line A/C													20	4.6					20	4.6
FY 2004 Eqpt - 120 Fld Instl													120	0.5					120	0.5
FY 2005 Eqpt - 29 Line A/C															29	6.8			29	6.8
FY 2005 Eqpt - 62 Fld Instl															62	0.3			62	0.3
TC Equip- 117																				
Total Installment	28		28		49	4.9	138	5.5	160	5.5	249	6.6	140	5.1	91	7.1			883	34.7
Total Procurement Cost		136.9		36.2		38.6		41.8		42.3		42.3		31.4		31.4		195.1		596.0

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: EH-60 QUICKFIX MODS (AB3000)
Program Elements for Code B Items:	Code:
Other Related Program Elements:	

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	83.4	13.8	36.5	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	138.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	83.4	13.8	36.5	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	138.6
Initial Spares	71.2	2.3										73.5
Total Proc Cost	154.6	16.1	36.5	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	212.1
Flyaway U/C												
Wpn Sys Proc U/C												

This modification line funded the Prophet Heliborne efforts. This program has been terminated and redirected to Prophet UAV.

JUSTIFICATION: No FY01 planned program.

Exhibit P-40M Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No.	P-1 Item Nomenclature
AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	EH-60 QUICKFIX MODS (AB3000)

Program Elements for Code B Items	Code	Other Related Program Elements

Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Quickfix Upgrades											
1-02-07-0001	Operation	0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	4.9
Totals		0.0	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	4.9

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Quickfix Upgrades 1-02-07-0001

MODELS OF SYSTEMS AFFECTED: Quickfix, EH-60A, AN/ALQ-151(V)2

DESCRIPTION / JUSTIFICATION:

Due to the Prophet Heliborne restructure, funding was no longer required. Funding was reprogrammed to support the fielding of the Guardrail Common Sensor System 2 program.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 24 Months PRODUCTION LEADTIME: 24 Months

Contract Dates:	FY 1999	Enter Date	FY 2000	Enter Date	FY 2001 Enter Date
Delivery Date:	FY 1999	Enter Date	FY 2000	Enter Date	FY 2001 Enter Date

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Quickfix Upgrades 1-02-07-0001

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other						4.9														4.9
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost						4.9														4.9

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: AIRBORNE AVIONICS (AA0700)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	161.3	58.3	41.7	56.3	45.5	60.0	78.0	68.2	52.4	76.8	42.9	741.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	161.3	58.3	41.7	56.3	45.5	60.0	78.0	68.2	52.4	76.8	42.9	741.4
Initial Spares												
Total Proc Cost	161.3	58.3	41.7	56.3	45.5	60.0	78.0	68.2	52.4	76.8	42.9	741.4
Flyaway U/C												
Wpn Sys Proc U/C												

Description: The Airborne Avionics budget line includes the Global Positioning System (GPS) , the Improved Data Modem (IDM) and the Aviation Mission Planning System (AMPS). The GPS, IDM and AMPS are three of the aviation systems required to support the digitization of the battlefield. The GPS provides Army aviation with extremely accurate and secure navigation capability, assists in situational awareness, and prevention of fratricide. GPS is installed in two configurations based on mission profile, operational requirements, and avionics architecture of the aircraft. The Doppler GPS Navigation System (DGNS)/AN/ASN-128B is used for the utility and cargo helicopters. The Embedded GPS Inertial Navigation System (EGI) is integrated into the Scout/Attack fleet of helicopters. A Pre-Planned Product Improvement to the DGNS and EGI will begin in FY01 to integrate a GPS Receiver Applications Module-Selective Availability Anti-Spoofing Module (GRAM-SAASM). This interchangeable module will allow the Army to meet NAVWAR and civil airspace regulatory requirements.

The IDM is the key to digitizing Army Aviation. It is the centerpiece of Aviation's connectivity with the Tactical Internet (TI). This hardware/software solution allows Army Aviation interoperability with other weapon systems, the TI, and Fire Support Internet. The IDM provides a common Aviation platform solution for processing Situational Awareness and Joint Variable Message Format messages. IDM will be installed on the AH-64D, OH-58D, CH-47F, SOA, and UH-60Q/L+ aircraft.

AMPS provides critical Command and Control (C2) connectivity for Army Aviation. Without AMPS, there is no automated extraction of critical C2 information from the Maneuver Control System (MCS) for use in mission planning at Aviation brigade and below. AMPS is also the common data loader for initializing the avionics of all modernized platforms, including the AH-64A Apache Modernization, AH-64D Longbow Apache, CH-47D/F Chinook, OH-58D Kiowa Warrior, RAH-66 Comanche, and UH-60A/L/L+/Q Blackhawk.

Justification: The FY01 funding provides for the installation of 250 DGNS on the UH-60A/L and CH-47D aircraft, completing the basic DGNS installations on the Army's cargo/utility fleet. In addition, FY01 provides the initial funding for the EGI P3I non-recurring aircraft intergration for the AH-64A/D aircraft. FY01 funding also provides for the procurement of 36 IDM -303 boxes and the retrofittng of an additional 33 IDM -302 boxes to IDM -303 boxes. The IDM improves Army Aviation's

Exhibit P-40C Budget Item Justification Sheet		Date: February 2000
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: AIRBORNE AVIONICS (AA0700)	
Program Elements for Code B Items	Code	Other Related Program Elements

interoperability, lethality, and operational tempo through the exchange of fast and accurate data-burst communications via the TI thereby providing the seamless capability to communicate across the digital battlefield. Funding for AMPS will provide for continuation of system hardware procurement as well as software upgrades. AMPS provides the capability to electronically disseminate mission and battle plans from brigade commander all the way to individual aviation warfighting platforms, including initialization of the avionics systems of the modernized fleet.

Exhibit P-40M Budget Item Justification Sheet										Date: February 2000	
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft					P-1 Item Nomenclature: AIRBORNE AVIONICS (AA0700)						
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Embedded GPS Inertial Navigation System (EGI) (No P3a Set)											
TBD 1	Legislative	34.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.5
Doppler GPS Navigation System (DGNS) (AN/ASN-128B)											
TBD 2	Legislative	57.8	18.8	15.2	2.7	0.0	0.0	0.0	0.0	0.0	94.5
Global Positioning System (GPS) [AN/ASN-149] (No P3a Set)											
TBD 3	Legislative	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
Improved Data Modem (IDM)											
TBD 4	Oper/Log	39.5	27.6	16.5	32.5	42.6	53.7	35.7	46.9	30.3	325.3
Aviation Mission Planning System											
1-95-01-2185	Oper/Log	29.2	9.9	9.6	9.0	7.1	0.0	0.0	0.0	0.0	64.8
Embedded GPS Inertial Navigation System (EGI) PPI											
TBD 1-1	Legislative	0.0	0.0	4.2	11.4	18.8	8.6	9.9	14.6	9.1	76.6
Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI											
TBD 2-2	Legislative	0.0	0.0	0.0	4.4	9.5	5.9	6.8	15.3	3.5	45.4
Totals		163.1	56.3	45.5	60.0	78.0	68.2	52.4	76.8	42.9	643.2

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Doppler GPS Navigation System (DGNS) (AN/ASN-128B) TBD 2

MODELS OF SYSTEMS AFFECTED: Blackhawk (UH-60 A/L), Chinook (CH-47D)

DESCRIPTION / JUSTIFICATION:

This program modification of the UH-60A/L and CH-47D aircraft is required to complete fielding of an integrated state of the art Global Positioning System (GPS) - based navigation system. The requirement is to enhance aircraft navigation and warfighting capability to meet the Joint Chief of Staff Master Navigation Plan. GPS is one of the six aviation systems required for Digitization of the Battlefield. The UH-60A/L cost includes support equipment, a Command Instrument Processor (CIP), which must be used in conjunction with the DGNS/AN-ASN-128B and in lieu of the current analog version. In FY 01 the total DGNS quantities procured and installed: CH-47D - 430, and UH-60A/L - 1344.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Integration Design Contract Award	Aug 93	Aug 93
Production Contract Award (Multi Yr)	Aug 95	Aug 95
Production Follow on Contract	Mar 99	Aug 99

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	766	100	100	100	83	100	100	100	75	84	83	83									
Outputs	646	120	100	100	100	83	100	100	100	75	84	83	83								

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		1774
Outputs																		1774

METHOD OF IMPLEMENTATION: Contractor Teams ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 7 Months

Contract Dates:	FY 1999	Jan99	FY 2000	Jan 00	FY 2001
Delivery Date:	FY 1999	Sep 99	FY 2000	Sep 00	FY 2001

MODIFICATION TITLE (Cont): Doppler GPS Navigation System (DGNS) (AN/ASN-128B) TBD 2

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	1149	25.5	375	8.3	250	6.3													1774	40.1
Installation Kits		6.2		1.1		1.4														8.7
Installation Kits, Nonrecurring		0.8																		0.8
Equipment																				
Equipment, Nonrecurring		3.5		0.7																4.2
Engineering Change Orders		0.7																		0.7
Data																				
Training Equipment																				
Support Equipment	564	8.2	238	3.3	188	2.8													990	14.3
Other (Inc PM Mgt & Matrix Spt)		4.9		1.6		0.9		0.2												7.6
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits	766	8.0	383	3.8															1149	11.8
FY 1999 Eqpt -- Kits					375	3.8													375	3.8
FY 2000 Eqpt -- Kits							250	2.5											250	2.5
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment	766	8.0	383	3.8	375	3.8	250	2.5											1774	18.1
Total Procurement Cost		57.8		18.8		15.2		2.7												94.5

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Embedded GPS Inertial Navigation System (EGI) PPI TBD 1-1

MODELS OF SYSTEMS AFFECTED: Kiowa Warrior (OH-58D), Apache A (AH-64A) Longbow (AH-64D)

DESCRIPTION / JUSTIFICATION:

GPS (EGI) is one of the aviation systems required for Digitization of the Battlefield. FY 01 starts the aircraft integration of the GPS EGI Preplanned Product Improvement (P3I) interchangeable module, GRAM-SAASM, in accordance with NAVWAR and civil airspace regulatory requirements for the APACHE (AH-64A), LONGBOW (AH-64D) aircraft. In FY 01 the non-recurring funding provides for the AH-64A and AH-64D aircraft integration and testing. The Kit cost will vary depending on aircraft configuration. The procurement of the kit modification will start in FY 02 for field retrofit on the AH-64A and AH-64D. The remaining EGI equipped aircraft, KIOWA Warrior (OH-58D), SOA's, will start field retrofit in FY03. Only the Longbow GFE modules (172) will exclude installation kits and installation cost.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Contract Award (ECP)	Nov 01	
Production Contract Award	Apr 02	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																		29	29	28	28
Outputs																			29	29	28

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	31	31	31	30	41	41	41	41	87	87	87	87	44	44	43	43		923
Outputs	28	31	31	31	30	41	41	41	41	87	87	87	87	44	44	43	43	923

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

MODIFICATION TITLE (Cont): Embedded GPS Inertial Navigation System (EGI) PPI TBD 1-1

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity									146	5.6	195	4.0	236	5.2	376	8.3	174	4.7	1127	27.8
Installation Kits										0.4		0.4		0.5		1.0		0.5		2.8
Installation Kits, Nonrecurring								10.0		11.0		3.0		3.0						27.0
Equipment																				
Equipment, Nonrecurring										0.4						3.7				4.1
Engineering Change Orders						4.0		0.9		0.8										5.7
Data																				
Training Equipment																				
Support Equipment																				
Other (Inc PM Mgt & Matrix Spt)						0.2		0.5		0.6		0.4		0.3		0.5		0.1		2.6
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- 114 kits											114	0.8							114	0.8
FY 2003 Eqpt -- 123 kits													123	0.9					123	0.9
FY 2004 Eqpt - 164 kits															164	1.1			164	1.1
FY 2005 Eqpt -- 348 kits																	348	2.6	348	2.6
TC Equip- 174 Kits																	174	1.2	174	1.2
Total Installment											114	0.8	123	0.9	164	1.1	522	3.8	923	6.6
Total Procurement Cost						4.2		11.4		18.8		8.6		9.9		14.6		9.1		76.6

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI TBD 2-2

MODELS OF SYSTEMS AFFECTED: Blackhawk (UH-60 A/L), Chinook (CH-47D)

DESCRIPTION / JUSTIFICATION:

GPS (DGNS) is one of the six aviation systems required for Digitization of the Battlefield. FY01 starts the Pre-Planned Product Improvement for the ASN-128B/DGNS nonrecurring aircraft integration on the UH-60A/L aircraft. This modification is a joint service initiative which will provide a common interchangeable module, GPS Receiver Applications Module Selective Availability Anti-Spoofing Module GRAM-SAASM. The AN/ASN-128B/DGNS Pre-Planned Product Improvement will provide for open, upgradable architechture and meet the requirements of NAVWAR and civil airspace regulations for the UH-60 A/L and CH-47D aircraft fleets.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Contract Award (ECP)	Feb 00	
Production Contract Award	Feb 02	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																		50	50	50	50
Outputs																			50	50	50

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	40	40	40	40	50	50	50	50	124	124	125	125						1058
Outputs	50	40	40	40	40	50	50	50	50	124	124	125	125					1058

METHOD OF IMPLEMENTATION: Contractor Team ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 6 Months

Contract Dates: FY 1999 FY 2000 FY 2001

Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Doppler GPS Navigation System (DGNS) (AN/ASN-128B) PPI TBD 2-2

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity									200	4.8	160	3.8	200	4.8	498	11.9			1897	25.3
Installation Kits										0.6		0.5		0.6		1.5				3.2
Installation Kits, Nonrecurring								3.0		3.0										6.0
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders								1.2		0.7										1.9
Data																				
Training Equipment																				
Support Equipment																				
Other (Inc PM ADMIN/MAT SPT)								0.2		0.4		0.2		0.3		0.5				1.6
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt --200 kits											200	1.4							200	1.4
FY 2003 Eqpt --160 kits													160	1.1					160	1.1
FY 2004 Eqpt - 200 kits															200	1.4			200	1.4
FY 2005 Eqpt --498 kits																	498	3.5	498	3.5
TC Equip- Kits																				
Total Installment											200	1.4	160	1.1	200	1.4	498	3.5	1058	7.4
Total Procurement Cost								4.4		9.5		5.9		6.8		15.3		3.5		45.4

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Improved Data Modem (IDM) TBD 4

MODELS OF SYSTEMS AFFECTED: IDM MD-1295/A; Aircraft: Longbow (AH-64D), Kiowa Warrior (OH-58D), Special Operations Aircraft (MH-47E/MH-60K), CH-47F, UH-60Q/L+

DESCRIPTION / JUSTIFICATION:

The IDM is Army Aviation's direct response to the need for Digitization of the Battlefield. With the IDM, Field Commanders gain the capability for enhanced command and control, situational awareness through digital mapping of friendly and enemy positions, and modernized operations in joint service digitized environments. The IDM modification to incorporate Embedded Battle Command minimizes changes to platform architecture, capitalizes on software reuse, and reduces platform software lifecycle costs. IDMs for Longbow, CH-47F, SOA, and UH-60Q/L+ will be incorporated in production. IDMs for fielded Kiowa Warrior aircraft will be installed by the Kiowa Warrior PM during implementation of the Safety Enhancement Program (SEP) at the contractor's facility. Special Operations Aircraft (SOA) logistics contractors will install the IDMs at the contractor's facility for SOA platforms. This will result in no installation costs for incorporation of EBC into IDM.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Full Rate Production Contract	Dec 00	
Division Capstone Exercise - Limited C2	Apr 01	
First Digitized Corps	FY04	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:	ADMINISTRATIVE LEADTIME:	PRODUCTION LEADTIME:
Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Improved Data Modem (IDM) TBD 4

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E						1.9		7.2												9.1
PROCUREMENT																				
Kit Quantity	260	8.8					36	2.1	106	6.3	220	13.3	164	10.1	183	11.5	182	11.9	1151	64.0
Installation Kits																				
Installation Kits, Nonrecurring		4.1																		4.1
Equipment		0.1																		0.1
Equipment, Nonrecurring		10.9		3.8		4.9		4.5		4.5		1.5		1.5		1.6		3.9		37.1
Modifications			50	1.8	70	2.1	33	1.4	156	6.9	160	7.2	115	5.3	161	7.6			745	32.3
Engineering Change Orders		2.0						0.2		0.6		1.0		0.8		1.0		0.6		6.2
Data				0.2		0.2		0.2		0.2										0.8
Training Equipment																				
Support Equipment		0.1																		0.1
Other (Incl PM Mgt/Matrix Spt)		9.1		0.5		0.8		1.0		1.8		2.1		1.8		1.2		1.5		19.8
Interim Contractor Support																				
Fielding		0.7										2.2		2.2		2.3		9.6		17.0
System Test & Evaluation		0.4												0.3						0.7
Aircraft Integration		3.3		21.3		8.5		23.1		22.3		26.4		13.7		21.7		2.8		143.1
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost		39.5		27.6		16.5		32.5		42.6		53.7		35.7		46.9		30.3		325.3

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Aviation Mission Planning System 1-95-01-2185

MODELS OF SYSTEMS AFFECTED: AH-64A Modernization, AH-64D, UH-60A/L/Q, CH-47D/F, AH-1F, RAH-66, UH-1H, and OH-58D

DESCRIPTION / JUSTIFICATION:

The AMPS is a mission planning/battle-synchronization tool that automates aviation mission planning tasks. The AMPS includes tactical command and control, mission planning, and mission management. It interfaces with the Maneuver Control system (MCS) and associated networks which will furnish the aviation commander with continuous situational awareness, allowing the commander to rapidly adjust mission plans. Importantly, this system generates mission data in either hard copy and electronic formats which is loaded on the aircraft platforms, initializing the communication, navigation, and situational awareness systems of the modernized fleet aircraft. Since the airframes have the data receptacles/busses required to interface with AMPS there is no installation cost/schedule.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Contract Award	Feb 00	
IOTE	Jan 01	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																					
Outputs																					

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:	ADMINISTRATIVE LEADTIME:	PRODUCTION LEADTIME:
Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Aviation Mission Planning System 1-95-01-2185

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity	496	14.5	128	3.1	86	2.4													710	20.0
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		4.4		1.3		1.9		3.6		2.5										13.7
Equipment, Nonrecurring																				
Engineering Change Orders		7.9		4.5		4.6		4.7		4.0										25.7
Data																				
Training Equipment																				
Support Equipment																				
Other (Inc PM Mgt/Matrix Spt)		2.4		0.5		0.5		0.5		0.3										4.2
Interim Contractor Support																				
Fielding				0.5		0.2		0.2		0.3										1.2
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits																				
FY 2004 Eqpt -- kits																				
FY 2005 Eqpt -- kits																				
TC Equip-Kits																				
Total Installment																				
Total Procurement Cost		29.2		9.9		9.6		9.0		7.1										64.8

Exhibit P-40, Budget Item Justification Sheet												Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft								P-1 Item Nomenclature: ASE MODS (SIRFC) (AA0720)				
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	126.0	27.4	24.4	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	225.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	126.0	27.4	24.4	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	225.6
Initial Spares												
Total Proc Cost	126.0	27.4	24.4	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	225.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: AA0720 is a summary for the Aircraft Survivability Equipment Ttainer IV (ASET IV) AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC), and the Advanced Threat Infrared Countermeasures (ATIRCM). ASE modifications provides funding for Aircraft Survivability Equipment (ASE) upgrades by incorporation of latest state-of-the-art technology needed to meet current and emerging threats. Modular upgrades are applied in lieu of new developments to obtain the most cost effective improved systems. Modifications to current systems will sustain and protect the forces, conduct precision strikes, and dominate the maneuver battle. Installing ASE items on aircraft systems improve their threat defeating capabilities. This budget item rolls up four modification efforts that test, procure and install A-Kits on ASET IV and Army airframes.

JUSTIFICATION:
FY00 and FY01 funding is required to procure AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC) for the Special Operations Aircraft (SOA). The SOA requires additional capabilities to detect and defeat air and ground radar frequency (RF) missiles and to provide situational awareness to the pilot. The improvements needed will be satisfied by SIRFC. FY00-01 funds will also support nonrecurring engineering for the integration program. The SIRFC system brings the latest and most sophisticated state-of-the-art technology available for the US Army aircraft to survive on the modern digital battlefield.

Note: Received $ .6 million in FY 99 Kosovo supplemental to procure 50 AN/ALQ-144 Countermeasures Sets and 50 AN/AVR-2A Laser Detecting Sets.

Exhibit P-40M Budget Item Justification Sheet											Date: February 2000
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft					P-1 Item Nomenclature: ASE MODS (SIRFC) (AA0720)						
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Laser Detecting Set AN/AVR-2A(V)/AH-64 (No P3a Set)											
1-92-01-2182	Unclassified	30.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.6
AN/ALQ-211 Suite of Integrated Radio Frequency CMS											
1-92-01-2187	Unclassified	127.0	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	174.8
Advanced Threat Infrared Countermeasures (ATIRCM) (No P3a Set)											
TBD	Unclassified	20.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.2
Totals		177.8	5.4	11.7	4.5	14.3	4.8	4.9	2.2	0.0	225.6

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: AN/ALQ-211 Suite of Integrated Radio Frequency CMS 1-92-01-2187

MODELS OF SYSTEMS AFFECTED: AH-64D, MH-47D/L, MH-60K/L

DESCRIPTION / JUSTIFICATION:

The AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC) is the latest technology, state of the art, radar warning and radar jamming system that will protect Army Aircraft against newer, more capable threat air defense systems employing the latest and proliferated improvements in millimeter wave, pulse doppler, and multi-sprectral radar and Infrared technologies. The SIRFC consists of the Advanced Threat Warning Receiver (ATRWR) and the Advanced Threat Radar Jammer (ATRJ). The SIRFC will replace the current ASE equipment, AN/APR-39, AN/ALQ-136 and AN/ALQ-162. SIRFC is an Aircraft Survivability Equipment (ASE) project with OSD oversight and high joint interest (the AFSOC has selected SIRFC to be its bus controller and sensor fusion processor for the CV-22). It has application to other Air Force and Navy aircraft. The SIRFC system is necessary to the survival of the AH-64A/D, MH-47E/D, MH-60K/L, CH-47D, UH-60A/L, and EH-60 aircraft. The current requirement is for SIRFC systems to equip all AH-64D and MH-47/60 SOA aircraft, and portions of the Army UH-60 and CH-47 aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Engineering Change Proposal (ECP) Development Award - 3QFY96 (APACHE)
Type Classification Approval - 4QFY00 (APACHE)
Integration Development (SOA)
Production Contract Award - 3Q FY01 (SOA)
Production Hardware Delivery - 3Q FY03
First Kit Applied - 3Q FY03

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				1	
Outputs																				1	

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs			1		3	3	3	3	3	3	3	3						26
Outputs			1		3	3	3	3	3	3	3	3						26

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 18 Months

Contract Dates: FY 1999 FY 2000 FY 2001

Delivery Date: FY 1999 FY 2000 FY 2001

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): AN/ALQ-211 Suite of Integrated Radio Frequency CMS 1-92-01-2187

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity							1		1		12		12						26	
Installation Kits								0.3		0.3		3.8		3.9						8.3
Installation Kits, Nonrecurring		127.0		5.1		9.8		3.0		12.2										157.1
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Program Management				0.3		0.6		0.3		0.7		0.3		0.3		0.2				2.7
Contractor Logistics Support						1.3		0.9		1.1		0.5		0.5		0.2				4.5
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- kits																				
FY 2003 Eqpt -- kits											1	0.2							1	0.2
FY 2004 Eqpt -- kits													1	0.2					1	0.2
FY 2005 Eqpt -- kits															12	1.8			12	1.8
TC Equip-Kits																	12		12	
Total Installment											1	0.2	1	0.2	12	1.8	12		26	2.2
Total Procurement Cost		127.0		5.4		11.7		4.5		14.3		4.8		4.9		2.2				174.8

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft	P-1 Item Nomenclature: ASE MODS (ATIRCM) (AA0722)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	4.9	0.0	12.0	12.0	21.1	31.0	199.5	280.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	4.9	0.0	12.0	12.0	21.1	31.0	199.5	280.5
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	4.9	0.0	12.0	12.0	21.1	31.0	199.5	280.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: The ATIRCM/CMWS is a U.S. Army tri-service program to develop, test, and integrate defensive infrared (IR) countermeasures capabilities into existing, current generation host platforms for more effective protection against a greater number of IR guided missile threats than afforded by currently fielded IR countermeasures. It is the next generation of infrared countermeasures for use on rotary and fixed wing aircraft. It is applicable to Army, Air Force, and Navy aircraft. The system consists of Common Missile Warning System (CMWS), Advanced Threat Infrared Jammer (ATIRJ), Advanced Threat Infrared Countermeasure Munitions (AIRCMM), and Electronic Control Unit (ECU). It is designated to detect when the aircraft is being engaged by a threat missile, and provide appropriate countermeasures to cause the missile to miss the aircraft. Countermeasures include laser jamming and dispensing decoys. The CMWS component system is a joint U.S. Navy, U.S. Marine Corps, and U.S. Air Force program to develop, test, and integrate common missile warning on tactical aircraft and rotorcraft for IR guided missile threat warning. The ATIRCM/CMWS is the core systems of the U.S. Army's modular Suite of Integrated Infrared Countermeasures (SIIRCM). The total objective for the ATIRCM/CMWS in support of Army aircraft is 1047.

JUSTIFICATION: The Army, as the lead service, has the responsibility of providing active, directional countermeasures jamming and advanced dispensing capability utilizing both existing flare decoys. The ATIRCM/CMWS will replace the existing AN/ALQ-156 or AN/AAR-47 missile approach detectors, AN/ALQ-144A countermeasure sets, and/or the M-130 general purpose dispensers, depending on the host platform configurations. For the Navy and the Air Force, no existing equivalent systems exist.

Exhibit P-40M Budget Item Justification Sheet										Date: February 2000	
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft					P-1 Item Nomenclature: ASE MODS (ATIRCM) (AA0722)						
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Advanced Threat Infrared Countermeasures (ATIRCM)											
TBD	Unclassified			4.9		12.0	12.0	21.1	31.0	199.5	280.5

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Advanced Threat Infrared Countermeasures (ATIRCM) TBD

MODELS OF SYSTEMS AFFECTED: AH-64D, MH-47D/E, MH-60K/L, EH-60, UH-60, 0H-58D, CH-47D

DESCRIPTION / JUSTIFICATION:

The ATIRCM is a requirement for current generation Army aircraft. The ATIRCM/CMWS is one system which is the core of a Suite of Integrated Infrared Countermeasures (SIIRCM). This Suite will provide active and passive infrared countermeasures (IRCM) protection against infrared guided weapons. The system is designed to meet operatonal requirements for a modular IRCM system capable of providing awareness and self protection jamming countermeasures. The system is applicable to AH-64D, MH-47D/E, MH-60K/L, EH-60, UH-60, 0H-58D and CH-47D aircraft. The program has been designated a tri-service program, with application to Air Force and Navy aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Milestone I/II - Jun 95
EMD Contract Award - Sep 95
System Design Review - Mar 96
Preliminary Design Review - Jun 96
Critical Design Review - Feb 97
LRIP/Production Contract Award - Jun 02
LRIP/Production Hardware Delivery - Jul 04
First Kit Applied - Oct 04

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																		3	3	3	3
Outputs																			4	4	4

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	7	7	7	7	17	17	17	17	21	21	21	25	25	25	25	24	752	1047
Outputs	7	7	7	7	17	17	17	17	21	21	21	25	25	25	25	24	752	1047

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 15 Months

Contract Dates:	FY 1999	FY 2000	FY 2001
Delivery Date:	FY 1999	FY 2000	FY 2001

MODIFICATION TITLE (Cont): Advanced Threat Infrared Countermeasures (ATIRCM) TBD

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits									12	1.9	28	4.6	68	6.8	89	7.3	850	126.5	1047	147.1
Installation Kits, Nonrecurring										10.1		6.5		12.2		16.1		10.4		55.3
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt -- Kits																				
FY 2002 Eqpt -- 3 kits																				
FY 2003 Eqpt --11 kits											12	0.9							12	0.9
FY 2004 Eqpt -- 33 kits													28	2.1					28	2.1
FY 2005 Eqpt -- 83 kits															68	7.6			68	7.6
TC Equip-460 Kits																	939	62.6	939	62.6
Total Installment											12	0.9	28	2.1	68	7.6	939	62.6	1047	73.2
Total Procurement Cost										12.0		12.0		21.1		31.0		199.5		275.6

Exhibit P-40, Budget Item Justification Sheet												Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft								P-1 Item Nomenclature: GATM (AA0701)				
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	0.0	0.0	7.0	10.1	54.2	70.2	70.1	70.1	101.2	382.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	0.0	0.0	7.0	10.1	54.2	70.2	70.1	70.1	101.2	382.9
Initial Spares												
Total Proc Cost	0.0	0.0	0.0	0.0	7.0	10.1	54.2	70.2	70.1	70.1	101.2	382.9
Flyaway U/C												
Wpn Sys Proc U/C												

Description: Global Air Traffic Management is the military equivalent of the International Civil Aviation architecture known as Communications, Navigation, Surveillance and Air Traffic Management (CNS/ATM) programs. Current ground based navigation aids will be phased out of service as the world transitions to digital, data (non-voice), and space based navigation systems. Military aircraft will face flight restrictions (altitude and location dependent) if not GATM equipped. GATM requirements will be met with a variety of communication, navigation, and surveillance equipment, entailing the upgrade of existing equipment and procurement of new equipment for both rotary and fixed wing aircraft.

Justification: FY01 funding will procure GATM equipment for C-20, C-12, and RC-12 (Fixed Wing aircraft), and Protected Instrument Landing System (P-ILS) non-recurring engineering and modification of existing systems, AN/ARN-147 and AN/ARN-123 (Rotary Wing aircraft). The P-ILS impacts 271 Army helicopters (CH-47, UH-60A/L, and SOF) currently in Europe. Also, all US helicopters rotating to Europe must be equipped with P-ILS in order to execute precision approaches using the Instrument Landing System. Therefore, a contingency stockage of 70 units will be P-ILS capable to support deployments to Europe. Additionally, Europe mandates a Mode-S transponder for IFR flight after Jan 03 and for VFR flight after Jan 05. Rotary Wing Mode-S transponder procurement begins in FY 02 and installations continue through FY 07. For Fixed Wing, elimination of obsolete communication and navigation systems will enhance reliability and maintainability by employing commercial systems, thereby improving aircraft availability for mission requirements.

Exhibit P-40M Budget Item Justification Sheet										Date: February 2000	
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft						P-1 Item Nomenclature: GATM (AA0701)					
Program Elements for Code B Items			Code	Other Related Program Elements							
Description		Fiscal Years									
OSIP NO.	Classification	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TC	Total
Global Air Traffic Management(GATM) - Fixed Wing											
GATM-FW	U	0.0	0.0	7.0	6.9	25.7	43.0	33.2	42.7	85.5	244.0
Global Air Traffic Management - Rotary Wing											
GATM-RW	U	0.0	0.0	0.0	3.2	28.5	27.2	36.9	27.4	15.7	138.9
Totals		0.0	0.0	7.0	10.1	54.2	70.2	70.1	70.1	101.2	382.9

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Global Air Traffic Management(GATM) - Fixed Wing GATM-FW

MODELS OF SYSTEMS AFFECTED: C-12 series; RC-12 series; C-23; C-26; C-37; C-20F, E; and UC-35

DESCRIPTION / JUSTIFICATION:

Description: This effort will update and modernize communication, navigation, and surveillance equipment to future federal and current international regulatory requirements, allow worldwide deployments and continue safe operations into the 21st Century.

Justification: As currently equipped, aircraft are not suitable for worldwide deployment nor capable of using modern navigation and air traffic control facilities. There is a variety of equipment that will be required by GATM including: datalink technology, SATCOM, communication management units, Electronic Flight Information System, surveillance equipment, radios, and navigation equipment and multi-mode receivers. GATM requirements are evolving and will require additional systems in the near future. The kit quantities reflected on the next page represent a wide variety of avionics kits with different mixes each fiscal year. Additionally, kit configurations vary based on the aircraft onto which they will be installed. Consequently, kit unit cost will vary significantly from year to year and from platform to platform.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplishments
Contract Award	Jan 00	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs								1	1		3	3	4	5	6	7	7	12	14	14	14
Outputs									1	1	2	4	4	5	6	7	7	12	14	14	14

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	16	16	17	17	14	14	15	15										215
Outputs	16	16	17	17	14	14	15	15										215

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 3 Months

Contract Dates:	FY 1999	Enter Date	FY 2000	Jan 00	FY 2001	Jan 01	
Delivery Date:	FY 1999	Enter Date	FY 2000	Jun 00	FY 2001	Jun 01	

MODIFICATION TITLE (Cont): Global Air Traffic Management(GATM) - Fixed Wing GATM-FW

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity																				
Installation Kits					2	2.5	10	4.7	25	22.3	54	38.3	66	29.9	58	37.4	276	72.2	491	207.3
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data						0.1		0.1		0.1		0.1		0.1		0.1		0.5		1.1
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- 2 Kits					2	4.4													2	4.4
FY 2001 Eqpt --10 Kits							10	2.1											10	2.1
FY 2002 Eqpt -- 25 kits									25	3.3									25	3.3
FY 2003 Eqpt -- 54 kits											54	4.6							54	4.6
FY 2004 Eqpt -- 66 kits													66	3.2					66	3.2
FY 2005 Eqpt -- 58 kits															58	5.2			58	5.2
TC Equip- 276 Kits																	276	12.8	276	12.8
Total Installment					2	4.4	10	2.1	25	3.3	54	4.6	66	3.2	58	5.2	276	12.8	491	35.6
Total Procurement Cost						7.0		6.9		25.7		43.0		33.2		42.7		85.5		244.0

INDIVIDUAL MODIFICATION Date February 2000

MODIFICATION TITLE: Global Air Traffic Management - Rotary Wing GATM-RW

MODELS OF SYSTEMS AFFECTED: CH-47D, UH-60A/L/L+/Q/X, EH-60, LUH-1, A/MH-6, AH-64A/D, OH-58D, MH-60L/K, MH-47D/E, and CH-47D/F

DESCRIPTION / JUSTIFICATION:

High priority requirements funded will address communications and surveillance equipment necessary for airspace access for rotary wing aircraft operations (peace time and war-time missions) in Europe. The FY01/02 funding will procure P-ILS (AN/ARN-147 and AN-ARN-123) to take care of all required aircraft in Europe (271 helicopters). This affects CH-47D, UH-60A/L, and SOF aircraft only, the aircraft currently equipped with ILS. Their will be 70 additional P-ILS procurement modifications (plus spares) to equip aircraft as they are deployed to Europe. Mode-S transponders will be required for all IFR flights in Europe after 1 January, 2003. Funding will complete the non-recurring engineering efforts for UH-60, EH-60 and CH-47. Funding will also procure and install Mode-S transponders for the CH-47, UH-60 and EH-60.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

	Planned	Accomplished
Prod Contract Award (P-ILS)	Jan 01	
Prod Contract Award (Mode-S)	Apr 02	

Installation Schedule:

	Pr Yr	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003			
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs														68	67	67	67	55	55	55	55
Outputs															68	67	67	67	55	55	55

	FY 2004				FY 2005				FY 2006				FY 2007				To	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete	
Inputs	33	33	33	33	104	105	105	105	81	81	81	80	33	33	33	34		1496
Outputs	55	33	33	33	33	104	105	105	105	81	81	81	80	33	33	33	34	1496

METHOD OF IMPLEMENTATION: OLR Team ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 6 Months

Contract Dates:	Jan 01	FY 1999	Enter Date	FY 2000	Enter Date
Delivery Date:	Oct 01	FY 1999	Enter Date	FY 2000	Enter Date

FY 2001	Enter Date	
FY 2001	Enter Date	

INDIVIDUAL MODIFICATION — Date: February 2000

MODIFICATION TITLE (Cont): Global Air Traffic Management - Rotary Wing GATM-RW

FINANCIAL PLAN: ($ in Millions)

	FY 1998 and Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$	Qty	$
RDT&E																				
PROCUREMENT																				
Kit Quantity							341	2.8	220	12.6	132	6.9	419	24.0	323	18.6	131	7.4	1566	72.3
Installation Kits										2.5		0.7		3.9		3.1		1.4		11.6
Installation Kits, Nonrecurring								0.1		11.9		16.5		6.5				2.0		37.0
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other - PM Admin & Marix Spt								0.3		1.2		1.0		1.4		1.4		0.6		5.9
Interim Contractor Support																				
Installation of Hardware																				
FY 1998 & Prior Eqpt -- Kits																				
FY 1999 Eqpt -- Kits																				
FY 2000 Eqpt -- Kits																				
FY 2001 Eqpt --271 Kits									271	0.3									271	0.3
FY 2002 Eqpt --220 kits											220	2.1							220	2.1
FY 2003 Eqpt -- 132 kits													132	1.1					132	1.1
FY 2004 Eqpt -- 419 kits															419	4.3			419	4.3
FY 2005 Eqpt -- 323 kits																	323	3.1	323	3.1
TC Equip- 131 Kits																	131	1.2	131	1.2
Total Installment									271	0.3	220	2.1	132	1.1	419	4.3	454	4.3	1496	12.1
Total Procurement Cost								3.2		28.5		27.2		36.9		27.4		15.7		138.9

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 2 / Modification of Aircraft

P-1 Item Nomenclature: MODIFICATIONS < $5.0M (AA0725)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	27.2	1.8	1.7	1.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	34.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	27.2	1.8	1.7	1.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	34.6
Initial Spares												
Total Proc Cost	27.2	1.8	1.7	1.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	34.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This modification line updates and modernizes aircraft communication, navigation, surveillance, and safety equipment to current international standards, allowing worldwide deployments, and upgrade capability for continued safe operations into the 21st Century. This line will update the C-23, and other Fixed Wing aircraft to meet future avionics requirements resulting from worldwide navigation transition to Global Positioning System and the Chairman of the Joint Chief of Staff Master Navigation Plan requirements.

JUSTIFICATION: Funds for FY 01 are required for the Army's Fixed Wing aircraft to remain current and have unrestricted access to the rapidly changing Air Traffic Management airspace. Worldwide deployments using modern navigation, communications and surveillance equipment is required by evolving international regulations. During deployments in support of Desert Storm/Desert Shield/Provide Comfort, only selected aircraft with non-standard modifications were capable of being deployed to and within the theater. Elimination of obsolete communication and navigation systems will enhance reliability and maintainability by employing current commercial systems thereby improving aircraft availability and cockpit standardization.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 3 / Spares and Repair Part

P-1 Item Nomenclature: SPARE PARTS (AIR) (AA0950)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	18.8	27.5	15.9	15.2	23.8	38.7	23.3	23.0	0.0	186.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	18.8	27.5	15.9	15.2	23.8	38.7	23.3	23.0	0.0	186.1
Initial Spares												
Total Proc Cost	0.0	0.0	18.8	27.5	15.9	15.2	23.8	38.7	23.3	23.0	0.0	186.1
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Provides for procurement of spares to support initial fielding of new or modified end items.

JUSTIFICATION: The funds in this account procure depot level reparable (DLR) secondary items from the Supply Management, Army activity of the Army Working Capital Fund. To provide initial support, funds are normally required in the same year that end items are fielded. Initial spares breakout:

	FY 1999	FY 2000	FY 2001
UH-60	3481		
Quickfix	768		
Guardrail	1819	5802	
Avionics	4078	1998	2027
ASE	581		
Longbow	16759	8134	13140
Total	27486	15934	15167

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Item Nomenclature: AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	916.0	0.3	8.0	11.0	15.3	0.0	32.3	13.3	13.2	16.0	0.0	1025.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	916.0	0.3	8.0	10.4	15.3	0.0	32.3	13.3	13.2	16.0	0.0	1024.8
Initial Spares												
Total Proc Cost	916.0	0.3	8.0	10.4	15.3	0.0	32.3	13.3	13.2	16.0	0.0	1024.8
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: A3504 is a summary rollup for ASET IV, AZ3506, AN/AVR-2, AZ3508 and AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC).

The Aircraft Survivability Equipment Trainer IV (ASET IV) is a ground based, mobile aviation threat emitter simulation and training system, which enables aircrews to recognize surface-to-air-missiles (SAM) and anti-aircraft artillery (AAA) threats in order to employ the correct aircraft threat avoidance tactics. Eight systems have been produced and are being upgraded to simulate the most current SAM and AAA threats, as well as to locate, identify, and track aircraft at night through the use of night vision cameras. The AN/AVR-2A, AZ3508, is a passive threat laser warning system that alerts the aircrew that they are being targered by threat forces allowing the aircrew to engage the target or maneuvers to break the targeting. The SIRFC, AZ3508, consists of the Advanced Threat Warning Receiver (ATRWR) and the Advanced Threat Radar Jammer (ATRJ). The SIRFC will replace the current the Aircraft Survivability Equipment (ASE) AN/APR-39, AN/APR-144, AN/ALQ-136 and AN/ALQ-162. SIRFC is an ASE project with OSD oversight and high joint interest. The Air Force Special Operations Command has selected SIRFC to be its bus controller and sensor fusion processor for the CV-22. It has application to other Air Force and Navy aircraft.

JUSTIFICATION:

The SIRFC system is required to enhance the surviviability Army aircraft against the newer, more capable threat air defense systems employing the latest and proliferated improvements in millimeter wave, pulse Doppler, and multi-spectral radar. The current requirement is for SIRFC systems to equip all Army aircraft (3156 SIRFC systems). FY00 funding provides for project management, ASET IV nonrecurring engineering and system upgrades and AN/AVR-2A acquisition and fielding.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)			Weapon System Type:			Date: February 2000		
Aircraft Cost Elements	ID CD	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
1. AZ3506 - ASE WARNING RECEIVERS													
AN/TPQ-45 ASE Trainer IV (ASET IV)													
Nonrecurring Engineering & Upgrades		6742			6772			11640					
Project Management Support & Fielding of ASE Systems		1298			628			613					
SUBTOTAL		**8040**			**7400**			**12253**					
2. AZ3508 - ASE RADAR CM													
Suite of Integrated Radio Freq CMS (SIRFC) B-Kit for SOA													
Nonrecurring Engineering					2820								
Project Management					216			86					
SUBTOTAL					**3036**			**86**					
AN/AVR-2 Laser Warning													
System acquisition and fielding								2794					
Project Management								147					
SUBTOTAL								**2941**					
TOTAL		**8040**			**10436**			**15280**					

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities

Weapon System Type:

P-1 Line Item Nomenclature: AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
AN/TPQ-45 ASET IV Mod Kits										
FY 99	Sierra Technologies, Inc	Option	AMCOM, Huntsville, AL	Sep-98	Feb-00			Yes	No	
FY 00**		Option	AMCOM, Huntsville, AL	Apr-00	Oct-01			Yes	No	
AN/ALQ-211, Suite of Integrated Radio Frequency CMS										
FY01*	ITT Corp, Clifton, NJ	C/FFP	CECOM, Ft. Monmouth, NJ	Aug-01	Mar-03			Yes	N/A	

REMARKS:

* Contract award is contingent upon receipt of CV-22 funds as directed for Commander-in-Chief Special Operations Command.

** Upgrades for 8 Radio Frequency Surface -Air-to-Ground Missiles to eight ASET IV's and upgrade of FLIR Cameras.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities

P-1 Item Nomenclature: AVIONICS SUPPORT EQUIPMENT (AZ3000)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty	2076	34										2110
Gross Cost	115.7	9.9	2.6	2.5	8.9	0.0	0.0	0.0	0.0	0.0	0.0	139.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	115.7	9.9	2.6	2.5	8.9	0.0	0.0	0.0	0.0	0.0	0.0	139.6
Initial Spares	4.4											4.4
Total Proc Cost	120.1	9.9	2.6	2.5	8.9	0.0	0.0	0.0	0.0	0.0	0.0	144.0
Flyaway U/C	0.047	0.287	0.000	0.000								0.055
Wpn Sys Proc U/C	0.056	0.291	0.000	0.000								0.062

DESCRIPTION: AN/AVS-6, Aviators' Night Vision Imaging System (ANVIS) is a binocular, helmet mounted system for Aviation crew members. The original ANVIS was procured, with third generation image intensification, over the period of FY82-FY93. Since that time, substantial improvements have been made in image intensification (I2) technology and fourth generation image intensification is now available. Fourth generation I2 provides a 60% improvement in visual acuity at low light level and a 60% improvement in range performance as compared with currently fielded AN/AVS-6 systems. The AN/AVS-6(V) 3 is an enhanced night vision goggle with fourth generation image intensification designed for aviation use, to include nap-of-the-earth mission, down to overcast starlight conditions. The increased range performance results in improved safety of flight, thereby expanding the conditions under which nighttime operations can be conducted effectively.

Heads Up Display (HUD) AN/AVS-7 is a system which works in conjunction with the Aviator's Night Vision Imaging System (ANVIS) AN/AVS-6. The ANVIS/HUD collects critical flight information from aircraft sensors/cockpit displays and converts this information into visual imagery that is overlaid on the imagery viewed through the night vision goggles. This system allows continuous heads up flight by the pilot without needing to look inward at the instrument panel. This provides significant operational and safety enhancements to night vision goggle flight. The HUD is made up of two subsystems, an aircraft integration kit (brackets, wiring harness, etc.) [A Kit] and an interface box, control panels and two optical displays per aircraft [B Kit]. The entire System weight ranges from 32 to 40 pounds per aircraft. The display unit head weight is approximately 140 grams. HUD is being installed on the CH-47D and UH-60 helicopters.

JUSTIFICATION: There are no FY 2001 funds.

Exhibit P-5, Weapon Aircraft Cost Analysis	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Line Item Nomenclature: ANVIS/HUD (K35601)	Weapon System Type:	Date: February 2000

Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
AN/AVS-6(V)3	A							6850	963	7			
Installation					2018			500					
Flat Panel Upgrade								400					
Fielding					337			394					
Government Engineering					59			233					
Project Management					134			473					
Gross P-1 End Cost					2548			8850					
Less: Prior Year Adv Proc													
Net P-1 Full Funding Cost					2548			8850					
All ANVIS/HUD systems for the Army have been procured. Army funding in FY99 was required to install those systems.													
TOTAL					**2548**			**8850**					

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		ANVIS/HUD (K35601)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
AN/AVS-6(V)3										
FY 00	LITTON, TEMPE, AZ	OPTION	CECOM	Jan-00	Nov-00	578	7	YES		
FY 00	ITT, ROANOKE, VA	OPTION	CECOM	Jan-00	Nov-00	385	7	YES		

REMARKS:

FY 2000 / 2001 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: ANVIS/HUD (K35601)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 OCT	NOV	DEC	Calendar Year 00 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Fiscal Year 01 OCT	NOV	DEC	Calendar Year 01 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	LATER
AN/AVS-6(V)3																															
	1	FY 00	A	578	0	578				A										50	50	50	100	100	100	100	28				
	2	FY 00	A	385	0	385				A										50	50	50	100	100	35						

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
	LITTON	25	50	100	
	ITT	25	50	100	

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.	REMARKS
1	INITIAL	00	1	3	10	13	
	REORDER						
2	INITIAL	00	1	3	10	13	
	REORDER						
	INITIAL						
	REORDER						
	INITIAL						
	REORDER						
	INITIAL						
	REORDER						

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Item Nomenclature: COMMON GROUND EQUIPMENT (AZ3100)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	459.8	20.5	21.8	21.8	20.0	11.9	16.5	16.5	17.4	17.4	0.0	623.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	459.8	20.5	21.8	21.8	20.0	11.9	16.5	16.5	17.4	17.4	0.0	623.6
Initial Spares												
Total Proc Cost	459.8	20.5	21.8	21.8	20.0	11.9	16.5	16.5	17.4	17.4	0.0	623.6
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION:

Aviation Ground Support Equipment (AGSE) is necessary to make an aircraft, or one of its associated systems or subsystems, operational in its intended environments. This includes all equipment required to guide, control, inspect, test, adjust, calibrate, assess, gauge, assemble, disassemble, handle, transport, store, actuate, service, repair and/or overhaul the aircraft system or subsystems. Included are such items as aviation ground power units, hydraulic test stands, etc.

Airfield Support Equipment (Air Traffic Control (ATC) requirements will be met through a vast array of high technology solutions resulting in a highly reliable and safe air traffic control system. The Federal Aviation Administration(FAA) and the DoD are currently modernizing the National Airspace System (NAS) to include upgrading and automating the complete infrastructure, systematically replacing antiquated analog systems (radars, communications switching systems) and installing state of the art digital technology. Army fixed base ATC systems must therefore be fully interoperable with the FAA systems so existing analog systems will be replaced with new generation systems. These include the Voice Communication Switching System (VCSS), the DoD Advanced Automation System (DAAS), the Airfield Status Automation Systems (ASAS) and the Digital Airport Surveillance Radar (DASR). The Fixed Base Precision Approach Radar (FBPAR) provides the Army's primary ground controlled precision approach capability to recover aircraft to fixed base facilities, ensuring safe landing in adverse weather conditions. Ancillary equipment includes a host of generic ground-based navigation aides (Non-Directional Beacons, Distance Measuring Equipment, Instrument Landing Systems), digital radios and wind measuring equipment. These types of ancillary equipment support requirements tailored to specific aviation stationing plans throughout the world.

JUSTIFICATION:

Aviation Ground Support Equipment (AGSE): FY 01 funding will achieve and sustain the operational readiness of all Army aviation field units, which are operating AH-64, UH-60, CH-47, OH-58D and other Army aircraft. Aviation Ground Support Equipment (AGSE) also provides a means to correct safety-of-flight discrepancies which endanger both life and property. With more aircraft being added to the Army inventory, the fielding of new aviation units and the diversification of aviation missions creates an ever increasing requirement for AGSE. The Unit Maintenance Aerial Recovery Kit (UMARK) will provide Aviation Intermediate Maintenance (AVIM) and Aviation Unit Maintenance (AVUM) organizations the capability to quickly rig for aerial recovery, aircraft on the battlefield that cannot be repaired, nonflyable aircraft undergoing maintenance, heavily damaged aircraft, and crash damaged aircraft. AVIM Shop Set Complexes provide a transportable aviation intermediate and limited depot level maintenance capability in force projection or contingency operations. Containerization and Modernization Program (CAMP) provides “one lift” 50% deployability of AVIM Shop Set Complexes using organic vehicles operated by aircraft mechanics thus meeting the requirement to conduct split operations in a developing theater. International Standardization Organization (ISO) one-side expandable shelters house AVIM Shop Sets Complexes. ISO shelters provide the capability for maritime shipboard movement through commercial ports and are compatible with military/commercial roll-on/roll-off (RO/RO) ships and military/commercial ground transportation.

Exhibit P-5, Weapon Aircraft Cost Analysis	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Line Item Nomenclature: COMMON GROUND EQUIPMENT (AZ3100)	Weapon System Type:	Date: February 2000

Aircraft Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)					12,782			10,634			11,926		
AIRFIELD SUPPORT EQUIPMENT (AZ1710)					9,055			9,443			-		
TOTAL		**-**			**21,837**			**20,077**			**11,926**		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities

P-1 Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	338.6	17.2	14.3	12.8	10.8	11.9	15.6	15.6	16.4	16.4	0.0	469.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	338.6	17.2	14.3	12.7	10.6	11.9	15.6	15.6	16.4	16.4	0.0	469.4
Initial Spares												
Total Proc Cost	338.6	17.2	14.3	12.7	10.6	11.9	15.6	15.6	16.4	16.4	0.0	469.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Aviation Ground Support Equipment (AGSE) is necessary to make an aircraft, or one of its associated systems or subsystems, operational in its intended environments. This includes all equipment required to guide, control, inspect, test, adjust, calibrate, assess, gauge, assemble, disassemble, handle, transport, store, actuate, service, repair and/or overhaul the aircraft system or subsystems. Included are such items as aviation ground power units, hydraulic test stands, etc.

JUSTIFICATION: FY 01 funding will achieve and sustain the operational readiness of all Army aviation field units, which are operating AH-64, UH-60, CH-47, OH-58D and other Army aircraft. Aviation Ground Support Equipment (AGSE) also provides a means to correct safety-of-flight discrepancies which endanger both life and property. With more aircraft being added to the Army inventory, the fielding of new aviation units and the diversification of aviation missions creates an ever increasing requirement for AGSE. The Unit Maintenance Aerial Recovery Kit (UMARK) will provide Aviation Intermediate Maintenance (AVIM) and Aviation Unit Maintenance (AVUM) organizations the capability to quickly rig for aerial recovery, aircraft on the battlefield that cannot be repaired, nonflyable aircraft undergoing maintenance, heavily damaged aircraft, and crash damaged aircraft. AVIM Shop Set Complexes provide a transportable aviation intermediate and limited depot level maintenance capability in force projection or contingency operations. Containerization and Modernization Program (CAMP) provides “one lift” 50% deployability of AVIM Shop Set Complexes using organic vehicles operated by aircraft mechanics thus meeting the requirement to conduct split operations in a developing theater. International Standardization Organization (ISO) one-side expandable shelters house AVIM Shop Sets Complexes. ISO shelters provide the capability for maritime shipboard movement through commercial ports and are compatible with military/commercial roll-on/roll-off (RO/RO) ships and military/commercial ground transportation.

Exhibit P-5, Weapon Aircraft Cost Analysis	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)	Weapon System Type:	Date: February 2000

Aircraft Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Nondestructive Test Equipment(NDTE)	A												
Fielding					62								
Accessories					65								
Flexible Engine Diagnostic System(FEDS) (A08701)	A												
Fielding					7			7					
Production Engineering					45								
Depot Workload Cost Increase					1,652								
Shop Equipment Contact Maintenance (SECM)	A												
Fielding					2								
ASIOE					1,070								
Aircraft Vibration Analyzer (AVA)	A												
Hardware Upgrade								1,662					
Generic Aircraft Nitrogen Generator (GANG)	A												
Hardware								2,430	54	45			
Fielding								30					
Program Management Support								50					
New Aviation Tool Set (NATS)	A												
Hardware					1,479	834	2						
Fielding					32								
Program Management Support								50					
Aviation Ground Power Unit (AGPU)	A												
MWO					500								
Upgrade								546					
AVIM Shop Sets	A												
Hardware					5,799	7	828	1,740	2	870	3,480	4	870
Fielding					18			20			20		

Exhibit P-5, Weapon Aircraft Cost Analysis	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)	Weapon System Type:	Date: February 2000

Aircraft Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
ISO Shelters	A												
Hardware					1,260	21	60	1,330	19	70	2,870	41	70
Refurbishment					691								
Containerization and Modernization Program (CAMP) Shop Sets	A												
Hardware											1,800	2	900
Program Management Support								50					
Unit Maintenance Aerial Recovery Kit (UMARK)	A												
Hardware								1,440	32	45	3,735	83	45
Fielding								17			21		
Production Engineering					100								
Program Management Support								50					
Fuel Quantity Gauge Tester	A												
Hardware								212	32	7			
Helicopter External Lift Enhancer (Congressional Plus-Up)	A												
Hardware								1,000	22	45			
TOTAL		-			**12,782**			**10,634**			**11,926**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities

Weapon System Type:

P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)

WBS Cost Elements: / Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Generic Aircraft Nitrogen Generator (GANG)										
FY 00	TBS	C/FP	Kelly Air Force Base	Jan-00	Jan-01	54	45	Yes	No	
New Aviation Tool Set (NATS)										
FY 98	Rock Island Arsenal (RIA)	MIPR	AMCOM	Feb-98	Sep-98	11733	* 1	Yes	No	
FY 99	RIA	MIPR	AMCOM	Dec-98	Jul-99	834	* 2	Yes	No	
AVIM Shop Sets										
FY 99	Rock Island Arsenal (RIA)	MIPR	AMCOM	Jan-99	Jun-99	7	828	Yes	No	
FY 00	RIA	MIPR	AMCOM	Jan-00	Jun-00	2	870	Yes	No	
FY 01	RIA	MIPR	AMCOM	Jan-01	Jun-01	4	870	Yes	No	
ISO Shelters										
FY 99	USA Soldier and Biological	MIPR	AMCOM	Apr-99	Jun-99	21	60	Yes	No	
FY 00	Chemical Command	MIPR	AMCOM	Jan-00	Apr-00	19	70	Yes	No	
FY 01	Natick, MA	MIPR	AMCOM	Jan-01	Apr-01	41	70	Yes	No	
Containerization and Modernization Program (CAMP) Shop Sets										
FY 01	Rock Island Arsenal	MIPR	AMCOM	Jan-01	Aug-01	2	900	Yes	No	
Unit Maintenance Aerial Recovery Kit (UMARK)										
FY 00	TBS	C/FP	AMCOM	Jun-00	Jun-01	32	45	Yes	No	
FY 01	TBS	C/FP-O	AMCOM	Jan-01	Jan-02	83	45	Yes	No	
Fuel Quantity Gauge Tester										
FY00	TBS	C/FP	Kelly Air Force Base	Jan-00	Jul-00	32	7	Yes	No	
Helicopter External Lift Enhancer										
FY00	TBS	C/FP	AMCOM	Dec-00	Sep-01	22	45	Yes	N0	

REMARKS: * More than one type of New Aviation Tool Set is being procured, so unit prices are an average.

Exhibit P-40, Budget Item Justification Sheet												Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities								P-1 Item Nomenclature: AIRFIELD SUPPORT EQUIPMENT (AZ1710)				
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	121.1	3.3	7.5	9.1	9.4	0.0	0.0	0.0	0.0	0.0	0.0	150.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	121.1	3.3	7.5	9.1	9.4							150.4
Initial Spares												
Total Proc Cost	121.1	3.3	7.5	9.1	9.4	0.0	0.0	0.0	0.0	0.0	0.0	150.4
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Airfield Support Equipment (Fixed Base Air Traffic Control (ATC)) requirements will be met through a vast array of high technology solutions resulting in a highly reliable and safe air traffic control system. The Federal Aviation Administration(FAA) and the DoD are currently modernizing the National Airspace System (NAS) to include upgrading and automating the complete infrastructure, systematically replacing antiquated analog systems (radars, communications switching systems) and installing state of the art digital technology. Army fixed base ATC systems must therefore be fully interoperable with the FAA systems so existing analog systems will be replaced with new generation systems. These include the Voice Communication Switching System (VCSS), the DoD Advanced Automation System (DAAS), the Airfield Status Automation Systems (ASAS) and the Digital Airport Surveliance Radar (DASR). The Fixed Base Precision Approach Radar (FBPAR) provides the Army's primary ground controlled precision approach capability to recover aircraft to fixed base facilities, ensuring safe landing in adverse weather conditions. Ancillary equipment includes a host of generic ground-based navigation aides (Non-Directional Beacons, Distance Measuring Equipment, Instrument Landing Systems), digital radios and wind measuring equipment. These types of ancillary equipment support requirements tailored to specific aviation stationing plans throughout the world.

Exhibit P-5, Weapon Aircraft Cost Analysis	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Line Item Nomenclature: AIRFIELD SUPPORT EQUIPMENT (AZ1710)	Weapon System Type:	Date: February 2000

Aircraft Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
1. Precision Approach Radar													
Hardware					4,366	2	2,183	5,808	3	1,936			
Production Start Up Costs					1,081								
Interim Contractor Support					250								
Engineer, Furnish, & Install (EF&I)								2,103					
Fielding					154			57					
Testing													
Other Costs					217								
2. Voice Communication Switching System (VCSS)													
Hardware					1,081	5	216	472	3	157			
Engineer, Furnish, & Install (EF&I)					467			291					
Fielding													
Other Costs					33			12					
3. DoD Advanced Automation System (DAAS)													
Hardware													
Interim Contractor Support													
Engineer, Furnish, & Install (EF&I)								200					
Fielding													
4. Airfield Status Automation System (ASAS)													
Hardware													
Interim Contractor Support													
Engineer, Furnish, & Install (EF&I)													
Fielding													
5. Digital Airport Survelliance Radar (DASR)													
Site Surveys								450					
5. Ancillary Equipment					206			50					
6. USAF Air National Guard Tower Equipment					1,200								
TOTAL		**-**			**9,055**			**9,443**			**-**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities

Weapon System Type:

P-1 Line Item Nomenclature: AIRFIELD SUPPORT EQUIPMENT (AZ1710)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. Precision Approach Radar										
FY99	Raytheon Cambridge, MA	C/FP-O	CECOM	Aug-99	Nov-00	2	2,183	Yes	No	
FY 00	Raytheon Cambridge, MA	C/FP-O	CECOM	Mar-00	Jun-01	3	1,936	Yes	No	
2. Voice Communication Switching System (VCSS)										
FY99	Federal Aviation Administration (FAA)	MIPR	FAA	Jan-99	Jul-99	5	216	Yes	No	
FY00	Federal Aviation Administration (FAA)	MIPR	FAA	Feb-00	Aug-00	3	157	Yes	No	

REMARKS:

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)
Program Elements for Code B Items:	Code: / Other Related Program Elements: RDTE 643801 (DB45) and 654801 (DC45)

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	41.9	11.3	8.0	9.0	17.2	3.5	22.2	34.1	56.6	56.5		260.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	41.9	11.3	8.0	9.0	17.2	3.5	22.2	34.1	56.6	56.5		260.2
Initial Spares												
Total Proc Cost	41.9	11.3	8.0	9.0	17.2	3.5	22.2	34.1	56.6	56.5		260.2
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Aircrew Integrated Systems (ACIS) addresses those items of equipment that are used to sustain Army aircrews and troops throughout the flight profile, enhancing mission performance and aircrew survivability during operational missions, training, aircraft crash, and the post crash period prior to rescue. The ACIS items that accomplish the aircrew-aircraft integration functions include aircraft cockpit air bags, chemical/biological protective mask blowers, helicopter oxygen systems, nuclear flash and laser eye protection, helmets, flotation devices, survival kits and equipment, NBC warning, sound attenuation devices, and decontamination and filtration systems. A Nondevelopmental Item demonstration program for Digital Source Collector (flight data and voice recorder) for bussed and non-bussed Army rotary wing aircraft was also funded in this Standard Study Number. Basic Air Warrior ensembles will be procured to integrate aircrew equipment for maximum aircrew effectiveness by increased mission performance and safety, reduction of equipment weight and bulk, and increased tailorability to specific missions, threats, and the various aircraft platforms operated. The results of future development efforts will be applied as product improvements to the basic Air Warrior ensemble production as new technologies evolve.

JUSTIFICATION: Aircraft Procurement, Army (APA) funding for all ACIS programs and projects is included in this budget line item. The FY 00 and FY 01 CABS funding will provide for acquisition of the Cockpit Air Bag System (CABS) for UH-60 Blackhawk helicopters to improve crash survivability and reduce potential injuries and fatalities. The CABS includes aircraft modification that provides for adaptation of CABS to the aircraft, e.g., electrical power, hard points and miscellaneous attachment hardware and CABS common components, including crewmember system modules containing gas generators and the crash sensor and system packaging. Funding will permit incorporation of CABS into the UH-60 Blackhawk aircraft. The FY 00 Digital Source Collector funding will integrate data collection interfaces into the ANVIS HUD. Funding increases during FY 02 and beyond resource the Air Warrior basic ensemble production and aircraft platform integration that commences in FY 02.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)			Weapon System Type:			Date: February 2000		
Aircraft	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
Hardware:													
Cockpit Air Bag System (CABS):													
AH-64 Apache - Inertia Reels		1452	1550	1									
UH-60 Blackhawk - Inertia Reels		421	450	1									
UH-60 Blackhawk - LRIP					4800	150	32						
UH-60 Blackhawk -Production								6194	177	35	1245	36	35
Digital Source Collector (DSC) interface into ANVIS HUD:													
Hardware								1405	300	5			
Helmets - HGU-56/P:													
National Guard								3137	3853	1			
PRC-112 survival radios & spt equipment								2200	275	8			
Laser Eye Protective Visors								336	1000				
Subtotal Hardware Costs		**1873**			**4800**			**13272**			**1245**		
ECP, Sys Int. & Admin Costs													
Engineering Change Proposal - CABS:													
UH-60 Blackhawk		3200											
CABS P3I ECPs					1728			1000					
Systems Integration Engineering		1642			1028			1000			1000		
Project Management Administration		975			1200			1295			800		
Subtotal ECP, Sys Int, & Admin Costs		**5817**			**3956**			**3295**			**1800**		
Support Cost													
Fielding		260			216			600			445		
Subtotal Support Cost		**260**			**216**			**600**			**445**		
TOTAL		**7950**			**8972**			**17167**			**3490**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities

Weapon System Type:

P-1 Line Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Cockpit Air Bag System (CABS):										
AH-64 Apache - Inertia Reels										
FY 98	H. Koch and Sons, Inc Anaheim CA	C/FP	AMCOM, Huntsville, AL	Jun-98	Aug-98	1550	1	Yes		
UH-60 Blackhawk - Inertia Reels										
FY 98	H. Koch and Sons, Inc Anaheim CA	C/FP	AMCOM, Huntsville, AL	Sep-98	Sep-99	450	1	Yes		
UH-60 Blackhawk - LRIP										
FY 99	Simula, Inc., Phoenix, AZ	SS/FP	AATD, Ft. Eustis,VA.	Sep-99	May-00	150	32	Yes		
UH-60 Blackhawk -Production										
FY 00	Simula, Inc., Phoenix, AZ	SS/FP	AATD, Ft. Eustis, VA	Jun-00	Dec-00	177	35	Yes		
FY 01	Unknown	C/FP	AMCOM, Huntsville, AL	Nov-00	Feb-01	36	35	Yes		
Digital Source Collector (DSC):										
DSC integration of data collection interfaces into ANVIS HUD										
FY 00	BAE Systems	SS/FP	PM Night Vision Ft. Belvoir, VA	Mar-00	Sep-00	300	5	Yes		
Helmets - HGU-56/P (National Guard)										
FY 00	DLA Ft. Belvoir, VA	Reqn	DLA Ft. Belvoir, VA	Mar-00	Sep-00	3853	1	Yes		
PRC-112 survival radios & spt eqp, FY 00	CECOM, Ft. Monmouth, NJ	Reqn	CECOM, Ft. Monmouth, NJ	Jun-00	Jun-01	240	8	Yes		
Laser Eye Protective Visors	Various	Various	AMCOM, ACALA	Aug-00	Aug-01	1000		Yes		

REMARKS: FY99 CABS buy is sole source to Simula, Inc. (RDT&E Developer).

Exhibit P-40, Budget Item Justification Sheet										Date: February 2000		
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities						P-1 Item Nomenclature: AIR TRAFFIC CONTROL (AA0050)						
Program Elements for Code B Items:				Code:	Other Related Program Elements:							
	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	56.9	13.6	9.6	16.8	8.7	74.1	74.6	70.3	67.6	58.3	0.0	450.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	56.9	13.6	9.6	16.8	8.7	74.1	74.6	70.3	67.6	58.3	0.0	450.5
Initial Spares												
Total Proc Cost	56.9	13.6	9.6	16.8	8.7	74.1	74.6	70.3	67.6	58.3	0.0	450.5
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: Fixed Base Air Traffic Control requirements will be met through a vast array of high technology solutions resulting in a highly reliable and safe air traffic control system. The Joint DoD/Federal Aviation Administration (FAA) program will modernize the National Airspace System (NAS) to include upgrading and automating the complete infrastructure, systematically replacing antiquated analog systems (radars, communications switching systems) and installing state of the art digital technology. These include the Voice Communication Switching System (VCSS), the DoD Advanced Automation System (DAAS), the Airfield Status Automation Systems (ASAS) and the Digital Airport Surveillance Radar. The Fixed Base Precision Approach Radar (FBPAR) provides the Army's primary ground controlled precision approach capability to recover aircraft to fixed base facilities, ensuring safe landing in adverse weather conditions. Ancillary equipment includes a host of generic ground-based navigation aides (Non-Directional Beacons, Distance Measuring Equipment, Instrument Landing Systems), digital radios and wind measuring equipment.

Tactical Air Traffic Control equipment includes Tactical Terminal Control System (TTCS), Air Traffic Navigation Integration and Coordination System (ATNAVICS), and the Tactical Airspace Integration System (TAIS). The TTCS is providing secure, jam-resistant radio communications to remote landing and pickup zones along the forward edge of the battle area. The ATNAVICS will provide all weather instrument flight capabilities to include enroute, terminal and radar precision approach and landing services to all Army, other services, and allied aircraft. The TAIS is a highly mobile airspace synchronization and deconfliction system providing Army Airspace Command and Control (A2C2) and air traffic control capabilities to the First Digitized Division/Corps and the ground maneuver commander on the future digitized battlefield. It will interface with the Army Battle Command System (ABCS) and the Army Tactical Command and Control System (ATCCS) while providing ground commanders with automated A2C2 capability to support all Corp/Division digitization initiatives into the next century.

Exhibit P-40C Budget Item Justification Sheet		Date: February 2000
Appropriation / Budget Activity/Serial No.: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Item Nomenclature: AIR TRAFFIC CONTROL (AA0050)	
Program Elements for Code B Items	Code	Other Related Program Elements

JUSTIFICATION: FY 01 funds will provide the Army the joint service capability to procure specific fixed base Air Traffic Control (ATC) systems required for the Federal Aviation Administration (FAA) modernization and upgrade of the National Airspace System. These systems will save significant Operational and Support (O&S) costs through the replacement of old, obsolete, antiquated analog radars, switches, and automation systems with new, state of the art, highly reliable ATC systems in towers and approach control facilities. Funding will also ensure interoperability between Army and FAA systems. These new fixed base systems will be relatively easy to maintain and will provide commonality for both operational and maintenance training. Commonality and interoperability will ensure jointness among the Services and participating host nations.

For tactical ATC this funding will provide for the production of the ATNAVICS, continued upgrades and production of the TAIS. This new family of tactical Air Traffic Control systems will replace current generation equipment that is obsolete and not economically supportable. These systems will be compact, highly mobile, and relatively easy to install, and will be able to keep pace with the fast tempo of the modern battlefield. The continued acquisition of these Air Traffic Control systems will support present and future warfighting capabilities and assist the manuever commander/Army aviator by providing vast improvements in the areas of secure communications, automated data processing, equipment reliability, survivability, and transportability.

NOTE: FY 00 and prior funds for Fixed Base ATC systems were on the Airfield Support Equipment budget line (AZ1710). FY 99 Kosovo supplemental funds of $1.3M are being reprogrammed to RDTE.

Exhibit P-5, Weapon Aircraft Cost Analysis	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Line Item Nomenclature: AIR TRAFFIC CONTROL (AA0050)	Weapon System Type:	Date: February 2000

Aircraft Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
1. Precision Approach Radar													
Hardware											5,808	3	1,936
Production Start Up Costs													
Interim Contractor Support											335		
Engineer, Furnish & Install (EF&I)											1,728		
Fielding											224		
Data											189		
2. Voice Communication Switching System (VCSS)													
Hardware											1,929	12	161
Interim Contractor Support											30		
Engineer, Furnish, & Install (EF&I)											1,464		
Fielding											198		
3. DoD Advanced Automation System (DAAS)													
Hardware											5,400	5	1,080
Interim Contractor Support													
Engineer, Furnish, & Install (EF&I)											483		
Fielding													
4. Airfield Status Automation System (ASAS)													
Hardware											799	5	160
Engineer, Furnish, & Install (EF&I)											920		
Interim Contractor Support											162		
Fielding											25		
5. Digital Airport Surevelliance Radar (DASR)													
Hardware													
Interim Contractor Support													
Engineer, Furnish, & Install (EF&I)											1,402		
Fielding													
Ancillary Equipment											75		

Exhibit P-5, Weapon Aircraft Cost Analysis	Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Line Item Nomenclature: AIR TRAFFIC CONTROL (AA0050)	Weapon System Type:	Date: February 2000

Aircraft Cost Elements	ID CD	FY 98			FY 99			FY 00			FY 01		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
7. Tactical Terminal Control System (TTCS) (W614)													
Fielding					108								
Other Costs													
8. Tactical Airspace Integration System (TAIS)													
Hardware					6,070	1	6,070				18,000	6	3,000
Production Software Support					4,991			4,857			8,890		
GFE					1,182						4,278		
Testing					110			25			250		
Fielding					95			62			240		
Interim Contractor Support								274			478		
Training					362								
Other					422						398		
9. Air Traffic Navigation and Integration System (ATNAVICS)													
Hardware								3,337	1	3,337	16,959	7	2,423
GFE					144						1,315		
Production Start Up Costs					2,059						1,458		
Interim Contractor Support											132		
Testing (FAT)											472		
Fielding								129			103		
Other -FY 99 Kosovo Supplemental being reprogrammed to RDTE					1,300								
TOTALS		**-**			**16,843**			**8,684**			**74,144**		

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		AIR TRAFFIC CONTROL (AA0050)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
1. Precison Approach Radar										
FY 01	Raytheon Cambridge, MA	C/FP-O	CECOM	Jan-01	Apr-02	3	1,936	Yes	No	
2. Voice Communication Switching System (VCSS)										
FY 01	Federal Aviation Administration (FAA)	MIPR	FAA	Jan-01	Jul-01	12	161	Yes	No	
3. DoD Advanced Automation System (DAAS)										
FY 01	Federal Aviation Administration (FAA)	MIPR	FAA	Jan-01	Jan-02	5	1,080	Yes	No	
4. Airfield Status Automation System (ASAS)										
FY 01	NAVY	MIPR	NAVY	Jan-01	Jan-02	5	160	Yes	No	
5. Tactical Airspace InegrationSystem (TAIS)										
FY 99	Motorola, Huntsville, AL	C/FP	AMCOM	Feb-99	Aug-00	1	6,070	Yes	No	
FY 01	TBD	C/FP	AMCOM	Feb-01	May-02	6	3,000	Yes	No	
6. Air Traffic Navigation and Integration System (ATNAVICS)										
FY 00	Raytheon Cambridge, MA	C/FP-O	CECOM	Mar-00	Jun-01	1	3,336	Yes	No	
FY 01	Raytheon Cambridge, MA	C/FP-O	CECOM	Jan-01	Apr-02	7	2,423	Yes	No	

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2000

Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities

P-1 Item Nomenclature: INDUSTRIAL FACILITIES (AZ3300)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	0.0	2.0	1.5	1.5	1.4	1.6	1.6	2.2	2.2	0.0	13.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	0.0	0.0	2.0	1.5	1.5	1.4	1.6	1.6	2.2	2.2	0.0	13.9
Initial Spares												
Total Proc Cost	0.0	0.0	2.0	1.5	1.5	1.4	1.6	1.6	2.2	2.2	0.0	13.9
Flyaway U/C												
Wpn Sys Proc U/C												

DESCRIPTION: This program provides for the replacement of production test equipment. Funds are used to replace equipment that is old and becoming increasingly difficult to maintain. Instrumentation and equipment to be acquired consists of standard instrumentation recorders, tranducers, signal conditioners, encoders, computer systems, and related components in support of Aircraft systems. The program also provides funding for the Value Engineering (VE) program to stimulate activity for reducing manufacturing, acquisition, operation and support costs.

JUSTIFICATION: The FY01 request will provide the Aviation Technical Test Center with production support equipment in testing the APACHE, Black Hawk, and other aviation systems. Funding also supports rebuilds, upgrades and equipment rehabilitation of government owned equipment at the Ft. Rucker Test Facilities and value engineering support and training on all aviation systems in production.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: INDUSTRIAL FACILITIES (AZ3300)			Weapon System Type:			Date: February 2000		
Aircraft Cost Elements	ID CD	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
VALUE ENGINEERING PROGRAM PROVIDES FOR THE TRAINING OF AVIATION ENGINEERS IN THE CONCEPTS OF VALUE ENGINEERING FOR VARIOUS ARMY AIRCRAFT. ALSO PAYS FOR THE ADMINISTRATION OF THE VALUE ENGINEERING PROGRAM					836			817			801		
PROVISION OF INDUSTRIAL FACILITIES PROVIDES FOR REPLACEMENT AND UPGRADE TO PRODUCTION ACCEPTANCE TEST EQUIPMENT AND INSTRUMENTATION AT VARIOUS TEST CENTERS.					645			632			618		
TOTAL					**1481**			**1449**			**1419**		

Exhibit P-40, Budget Item Justification Sheet	Date: February 2000
Appropriation / Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities	P-1 Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)
Program Elements for Code B Items:	Code: / Other Related Program Elements:

	Prior Years	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Prog
Proc Qty												
Gross Cost	46.6	37.8	45.4	41.9	43.2	0.0	19.7	14.1	11.6	11.6	0.0	271.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	46.6	37.8	45.4	41.9	43.2	0.0	19.7	14.1	11.6	11.6	0.0	271.9
Initial Spares												
Total Proc Cost	46.6	37.8	45.4	41.9	43.2	0.0	19.7	14.1	11.6	11.6	0.0	271.9
Flyaway U/C												
Wpn Sys Proc U/C												

Description:

The AN/ARC-220/VRC-100 High Frequency (HF) Radio Program answers Army Aviation's critical long-standing requirement for a Non-Line-of-Sight (NLOS) communications capability. The HF radio system allows continuous and reliable secure/non-secure communication between Army aircraft flying Nap-of-the-Earth (NOE) maneuvers and at NLOS distances with Aviation Tactical Operations Centers (TOC) and other Army aircraft. The radio incorporates Automatic Link Establishment (ALE) to eliminate manual searches for workable frequencies reducing pilot workload and enhancing communication connectivity. The AN/ARC-220/VRC-100 also provides a frequency hopping capability and is night vision compatible. The AN/ARC-220/VRC-100 provides a position reporting and data capability enhancing situational awareness and command and control.

Justification:

Supports Required Operation Capability (ROC) for NOE Communications dated 7 May 1980 and updated in approved Operationl Requirement Document for the NOE Communications System dated 26 February 1994. The AN/ARC-220/VRC-100 answers Non-Line-of-Sight communication deficiency for Apache aircraft as identified by Task Force Hawk. FY02 and out procures 98 Apache A/D, 271 UH-60/EH-60, and 113 OH-58D A-Kits. The AN/ARC-220 supports digitization of the battlefield and enhances Joint Services communications. The AN/ARC-220/VRC-100 communications system supports the five (5) Army modernization objectives; protect and sustain the force, protect the force, win the battlefield information war, conduct precision strikes throughout the battlefield and dominate the maneuver battle.

Exhibit P-5, Weapon Aircraft Cost Analysis		Appropriation/ Budget Activity/Serial No: AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities			P-1 Line Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)			Weapon System Type:			Date: February 2000		
Aircraft	ID	**FY 98**			**FY 99**			**FY 00**			**FY 01**		
Cost Elements	CD	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO	$OOO	Each	$OOO
AN/ARC-220 NOE HF RADIO													
Recurring Costs													
A. Airborne Radio					11783	506	23	11339	494	23			
B. VRC-100 Ground Radio					2906	100	29	1969	66	30			
C. A-Kits					5278	854	6	7900	464	17			
D. A-Kit Installation					1413			11937					
SUBTOTAL					**21380**			**33145**					
Non-Recurring Costs													
A-kit Integration					14172			1200					
Other System Test					584			50					
SUBTOTAL					**14756**			**1250**					
Support Cost													
Fielding Support					3698			6970					
Program Management					2070			1818					
SUBTOTAL					**5768**			**8788**					
TOTAL					**41904**			**43183**					

Exhibit P-5a, Budget Procurement History and Planning

Date: February 2000

Appropriation / Budget Activity/Serial No:	Weapon System Type:	P-1 Line Item Nomenclature:
AIRCRAFT PROCUREMENT / 4 / Support Equipment and Facilities		AIRBORNE COMMUNICATIONS (AA0705)

WBS Cost Elements: Fiscal Years	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost $OOO	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
AN/ARC-220 HF Airborne Radio		C/FP								
FY99	Rockwell International, IA	Option	CECOM	Feb-99	Dec-99	506	23	Yes		
FY00	Rockwell International, IA	Option	CECOM	Feb-00	May-01	494	23	Yes		
FY01	Rockwell International, IA	Option	CECOM							
AN/VRC-100 Ground Radio		C/FP								
FY99	Rockwell International, IA	Option	CECOM	Feb-99	Deb 99	100	29	Yes		
FY00	Rockwell International, IA	Option	CECOM	Feb-00	Aug-01	66	30	Yes		
FY01	Rockwell International, IA	Option	CECOM							

REMARKS:

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	FY 98 OCT	FY 98 NOV	FY 98 DEC	CY 98 JAN	CY 98 FEB	CY 98 MAR	CY 98 APR	CY 98 MAY	CY 98 JUN	CY 98 JUL	CY 98 AUG	CY 98 SEP	FY 99 OCT	FY 99 NOV	FY 99 DEC	CY 99 JAN	CY 99 FEB	CY 99 MAR	CY 99 APR	CY 99 MAY	CY 99 JUN	CY 99 JUL	CY 99 AUG	CY 99 SEP	LATER
AN/ARC-220 Airborne HF Radio	1	99	A	506	0	506																A								506
AN/ARC-220 Airborne HF Radio	1	00	A	494	0	494																								494
AN/VRC-100 Ground HF Radio	2	99	A	100	0	100																A								100
AN/VRC-100 Ground HF Radio	2	00	A	66	0	66																								66

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Rockwell International - Collins Avionics Division	30	70	100	
	Cedar Rapids, IA				
2	Rockwell International - Collins Avionics Division	5	15	20	
	Cedar Rapids, IA				

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	X		6	6	12
	REORDER	X		3	6	9
	INITIAL					
	REORDER					
2	INITIAL	X		6	6	12
	REORDER	X		3	6	9
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 00 / Calendar Year 00												Fiscal Year 01 / Calendar Year 01										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
AN/ARC-220 Airborne HF Radio	1	99	A	506	0	506			3	40	40	33	30	30	30	30	30	30	30	30	30	30	30	30							
AN/ARC-220 Airborne HF Radio	1	00	A	494	0	494					A														30	30	30	30	30	344
AN/VRC-100 Ground HF Radio	2	99	A	100	0	100			5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
AN/VRC-100 Ground HF Radio	2	00	A	66	0	66					A																	5	5	56

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Rockwell International - Collins Avionics Division	30	70	100	
	Cedar Rapids, IA				
2	Rockwell International - Collins Avionics Division	5	15	20	
	Cedar Rapids, IA				

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	X		6	6	12
	REORDER	X		3	6	9
2	INITIAL					
	REORDER	X		6	6	12
	INITIAL	X		3	6	9
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS

FY 00 / 01 BUDGET PRODUCTION SCHEDULE

P-1 Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)

Date: February 2000

COST ELEMENTS	MFR	FY	SERV	PROC QTY Each	ACCEP. PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Fiscal Year 02 / Calendar Year 02												Fiscal Year 03 / Calendar Year 03										LATER
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
AN/ARC-220 Airborne HF Radio	1	99	A	506	506																								
AN/ARC-220 Airborne HF Radio	1	00	A	494	150	344	30	30	30	30	30	30	30	30	30	30	30	14											
AN/VRC-100 Ground HF Radio	2	99	A	100	100																								
AN/VRC-100 Ground HF Radio	2	00	A	66	10	56	5	5	5	5	5	5	5	5	5	5	5	1											

MFR	NAME / LOCATION	PRODUCTION RATES MIN.	1-8-5	MAX.	REACHED D +
1	Rockwell International - Collins Avionics Division	30	70	100	
	Cedar Rapids, IA				
2	Rockwell International - Collins Avionics Division	5	15	20	
	Cedar Rapids, IA				

MFR Number			ADMIN LEAD TIME Prior 1 Oct.	ADMIN LEAD TIME After 1 Oct.	MFR After 1 Oct.	TOTAL After 1 Oct.
1	INITIAL	X		6	6	12
	REORDER	X		3	6	9
	INITIAL					
	REORDER	X		6	6	12
2	INITIAL	X		3	6	9
	REORDER					
	INITIAL					
	REORDER					
	INITIAL					
	REORDER					

REMARKS