

# DEPARTMENT OF THE ARMY

## Procurement Programs



Committee Staff Procurement Backup Book  
FY 2002 Amended Budget Submission

### **AIRCRAFT PROCUREMENT, ARMY**

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APPROPRIATION

June 2001

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## **Unit Set Fielding**

### Notification

The Army is committed to displaying future budget requests in Unit Set Fielding format. We will move toward this type of display beginning with our FY03 budget request.

The display of Unit Set Fielding will define a capability vice a piece of equipment.

### Unit Set Fielding Definition

Unit Set Fielding (USF) is the process that modernizes and transforms the Army **by unit sets** primarily at brigade and division levels. The USF schedule synchronizes the fielding of new and upgraded systems, along with supporting enablers, to units in specified windows of generally 6 months per brigade. The intent of this process is to field systems and enablers in sets to provide increased unit operational capability that supports the Army Vision and priorities established by the Army. This approach shifts the focus away from development and fielding of individual systems and to integrated combat capabilities. In order to effectively accomplish USF, the scope of synchronization extends to encompass requirements for manning units, training those units, sustaining those units, and includes installation requirements in support of unit requirements. USF is fully integrated into the Army Transformation Campaign Plan and is clearly the most effective means to synchronize the development and fielding of interim brigades and the objective force of the future.

The Army will work with Congress as we develop Unit Set Fielding displays to assure all required information is included.

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APPROPRIATION SUMMARY

DOLLARS IN THOUSANDS

APPROPRIATION

Aircraft Procurement, Army

TOTAL PROCUREMENT PROGRAM

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>PAGE</u>
Aircraft Procurement, Army	1,507,223	1,557,391	1,925,491	3
TOTAL PROCUREMENT PROGRAM	<u>1,507,223</u>	<u>1,557,391</u>	<u>1,925,491</u>	

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APPROPRIATION    Aircraft Procurement, Army ACTIVITY		DOLLARS IN THOUSANDS			PAGE
		FY 2000	FY 2001	FY 2002	
01	Aircraft	251,113	241,096	201,421	4
02	Modification of aircraft	1,124,689	1,176,543	1,518,043	5
03	Spares and repair parts	14,290	15,028	5,331	7
04	Support equipment and facilities	117,131	124,724	200,696	8
<b>APPROPRIATION TOTALS</b>		<b>1,507,223</b>	<b>1,557,391</b>	<b>1,925,491</b>	

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APPROPRIATION Aircraft Procurement, Army

ACTIVITY 01 Aircraft

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2000		FY 2001		FY 2002	
			QTY	COST	QTY	COST	QTY	COST
	<i>FIXED WING</i>							
1	ARL (TIARA) (A11500)			30000				
2	UTILITY F/W (MR) AIRCRAFT (A11300)		1	5293	1	7530		
	<i>SUB-ACTIVITY TOTAL</i>			<u>35,293</u>		<u>7,530</u>		
	<i>ROTARY</i>							
3	UH-60 BLACKHAWK (MYP) (AA0005) Less: Advance Procurement (PY)		19	(199266)	18	(204416)	12	(196439)
				<u>199,266</u>		<u>(-16554)</u>		<u>(-21924)</u>
4	UH-60 BLACKHAWK (MYP) (AA0005) Advance Procurement (CY)			16554		21924		26906
5	HELICOPTER NEW TRAINING (A06500)					23780		
	<i>SUB-ACTIVITY TOTAL</i>			<u>215,820</u>		<u>233,566</u>		<u>201,421</u>
	<b>ACTIVITY TOTAL</b>			<u>251,113</u>		<u>241,096</u>		<u>201,421</u>

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APPROPRIATION Aircraft Procurement, Army

ACTIVITY 02 Modification of aircraft

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2000		FY 2001		FY 2002	
			QTY	COST	QTY	COST	QTY	COST
<i>MODIFICATIONS OF AIRCRAFT</i>								
6	GUARDRAIL MODS (TIARA) (AZ2000)			23555		22419		8827
7	ARL MODS (TIARA) (AZ2050)	A		5777		6493		12322
8	AH1F MODS (AA0150)			428		419		
9	AH-64 MODS (AA6605)	A		57559		35686		38473
10	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252) Less: Advance Procurement (PY)			(114899)		(90048)		(303420) (-25960)
11	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252) Advance Procurement (CY)						25960	17722
12	CH-47 ICH (AA0254)					83061		
13	UTILITY/CARGO AIRPLANE MODS (AA0270)			11965		11794		16095
14	OH-58 MODS (AA0400)			464		458		463
15	AIRCRAFT LONG RANGE MODS (AA0560)			754		745		753
16	Longbow (AA6670) Less: Advance Procurement (PY)			(792247) (-43154)		(755676) (-35392)		(923240) (-34679)
17	Longbow (AA6670) Advance Procurement (CY)						720,284	888,561
18	UH-1 MODS (AB0602)			2648		4258		
19	UH-60 MODS (AA0480)			12654		23305		52269
20	KIOWA WARRIOR (AZ2200)			41940		41531		42600

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APPROPRIATION Aircraft Procurement, Army

ACTIVITY 02 Modification of aircraft

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2000		FY 2001		FY 2002		
			QTY	COST	QTY	COST	QTY	COST	
21	PROPHET AIR (TIARA) (AB3000)			16					
22	AIRBORNE AVIONICS (AA0700)			43771		60977			78421
23	ASE MODS (SIRFC) (AA0720)			8793		4446			
24	ASE MODS (ATIRCM) (AA0722)			4901					
25	GATM (AA0701)			9878		9980			
26	GATM Rollup (AA0711)								54551
27	MODIFICATIONS < \$5.0M (AA0725)			202					
	<i>SUB-ACTIVITY TOTAL</i>			<u>1,124,689</u>		<u>1,176,543</u>			<u>1,518,043</u>
	<b>ACTIVITY TOTAL</b>			<b>1,124,689</b>		<b>1,176,543</b>			<b>1,518,043</b>

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APPROPRIATION Aircraft Procurement, Army

ACTIVITY 03 Spares and repair parts

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2000		FY 2001		FY 2002	
			QTY	COST	QTY	COST	QTY	COST
	<i>SPARES AND REPAIR PARTS</i>							
28	SPARE PARTS (AIR) (AA0950)			14290		15028		5331
	<i>SUB-ACTIVITY TOTAL</i>			<u>14,290</u>		<u>15,028</u>		<u>5,331</u>
	<b>ACTIVITY TOTAL</b>			<b>14,290</b>		<b>15,028</b>		<b>5,331</b>

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APPROPRIATION Aircraft Procurement, Army      ACTIVITY 04 Support equipment and facilities

LINE NO	ITEM NOMENCLATURE	ID	DOLLARS IN THOUSANDS					
			FY 2000		FY 2001		FY 2002	
			QTY	COST	QTY	COST	QTY	COST
	<i>GROUND SUPPORT AVIONICS</i>							
29	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)			15280		9908		32780
30	ASE INFRARED CM (AZ3507)						12	36653
	<i>SUB-ACTIVITY TOTAL</i>			<u>15,280</u>		<u>9,908</u>		<u>69,433</u>
	<i>OTHER SUPPORT</i>							
31	AVIONICS SUPPORT EQUIPMENT (AZ3000)			8850		9908		7544
32	COMMON GROUND EQUIPMENT (AZ3100)			12351		11817		19113
33	AIRCREW INTEGRATED SYSTEMS (AZ3110)			17167		10294		10253
34	AIR TRAFFIC CONTROL (AA0050)			18410		73464		68887
35	INDUSTRIAL FACILITIES (AZ3300)			1449		1406		707
36	LAUNCHER, 2.75 ROCKET (A50100)							4960
37	AIRBORNE COMMUNICATIONS (AA0705)			43183		7927		19799
38	CLOSED ACCOUNT ADJUSTMENT (AZ9999)			441				
	<i>SUB-ACTIVITY TOTAL</i>			<u>101,851</u>		<u>114,816</u>		<u>131,263</u>
	<b>ACTIVITY TOTAL</b>			<u>117,131</u>		<u>124,724</u>		<u>200,696</u>
	<b>APPROPRIATION TOTAL</b>			<u>1,507,223</u>		<u>1,557,391</u>		<u>1,925,491</u>

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AA6605	9	5	AH-64 MODS (AA6605)
AA0150	8	5	AH1F MODS (AA0150)
AA0050	34	8	AIR TRAFFIC CONTROL (AA0050)
AA0700	22	6	AIRBORNE AVIONICS (AA0700)
AA0705	37	8	AIRBORNE COMMUNICATIONS (AA0705)
AA0560	15	5	AIRCRAFT LONG RANGE MODS (AA0560)
AZ3504	29	8	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)
AZ3110	33	8	AIRCREW INTEGRATED SYSTEMS (AZ3110)
A11500	1	4	ARL (TIARA) (A11500)
AZ2050	7	5	ARL MODS (TIARA) (AZ2050)
AZ3507	30	8	ASE INFRARED CM (AZ3507)
AA0722	24	6	ASE MODS (ATIRCM) (AA0722)
AA0720	23	6	ASE MODS (SIRFC) (AA0720)
AZ3000	31	8	AVIONICS SUPPORT EQUIPMENT (AZ3000)
AA0252	10	5	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)
AA0252	11	5	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)
AA0254	12	5	CH-47 ICH (AA0254)
AZ9999	38	8	CLOSED ACCOUNT ADJUSTMENT (AZ9999)
AZ3100	32	8	COMMON GROUND EQUIPMENT (AZ3100)
AA0701	25	6	GATM (AA0701)
AA0711	26	6	GATM Rollup (AA0711)
AZ2000	6	5	GUARDRAIL MODS (TIARA) (AZ2000)
A06500	5	4	HELICOPTER NEW TRAINING (A06500)
AZ3300	35	8	INDUSTRIAL FACILITIES (AZ3300)
AZ2200	20	5	KIOWA WARRIOR (AZ2200)
A50100	36	8	LAUNCHER, 2.75 ROCKET (A50100)
AA0005	3	4	Less: Advance Procurement (PY)
AA0252	10	5	Less: Advance Procurement (PY)
AA6670	16	5	Less: Advance Procurement (PY)
AA6670	16	5	Longbow (AA6670)
AA6670	17	5	Longbow (AA6670)
AA0725	27	6	MODIFICATIONS < \$5.0M (AA0725)
AA0400	14	5	OH-58 MODS (AA0400)
AB3000	21	5	PROPHET AIR (TIARA) (AB3000)
AA0950	28	7	SPARE PARTS (AIR) (AA0950)

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SSN	LINE	PAGE	NOMENCLATURE
AB0602	18	5	UH-1 MODS (AB0602)
AA0005	3	4	UH-60 BLACKHAWK (MYP) (AA0005)
AA0005	4	4	UH-60 BLACKHAWK (MYP) (AA0005)
AA0480	19	5	UH-60 MODS (AA0480)
A11300	2	4	UTILITY F/W (MR) AIRCRAFT (A11300)
AA0270	13	5	UTILITY/CARGO AIRPLANE MODS (AA0270)

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A11300	2	4	UTILITY F/W (MR) AIRCRAFT (A11300)
A11500	1	4	ARL (TIARA) (A11500)
A50100	36	8	LAUNCHER, 2.75 ROCKET (A50100)
AA0005	3	4	UH-60 BLACKHAWK (MYP) (AA0005)
AA0005	3	4	Less: Advance Procurement (PY)
AA0005	4	4	UH-60 BLACKHAWK (MYP) (AA0005)
AA0050	34	8	AIR TRAFFIC CONTROL (AA0050)
AA0150	8	5	AH1F MODS (AA0150)
AA0252	10	5	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)
AA0252	10	5	Less: Advance Procurement (PY)
AA0252	11	5	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)
AA0254	12	5	CH-47 ICH (AA0254)
AA0270	13	5	UTILITY/CARGO AIRPLANE MODS (AA0270)
AA0400	14	5	OH-58 MODS (AA0400)
AA0480	19	5	UH-60 MODS (AA0480)
AA0560	15	5	AIRCRAFT LONG RANGE MODS (AA0560)
AA0700	22	6	AIRBORNE AVIONICS (AA0700)
AA0701	25	6	GATM (AA0701)
AA0705	37	8	AIRBORNE COMMUNICATIONS (AA0705)
AA0711	26	6	GATM Rollup (AA0711)
AA0720	23	6	ASE MODS (SIRFC) (AA0720)
AA0722	24	6	ASE MODS (ATIRCM) (AA0722)
AA0725	27	6	MODIFICATIONS < \$5.0M (AA0725)
AA0950	28	7	SPARE PARTS (AIR) (AA0950)
AA6605	9	5	AH-64 MODS (AA6605)
AA6670	16	5	Longbow (AA6670)
AA6670	16	5	Less: Advance Procurement (PY)
AA6670	17	5	Longbow (AA6670)
AB0602	18	5	UH-1 MODS (AB0602)
AB3000	21	5	PROPHET AIR (TIARA) (AB3000)
AZ2000	6	5	GUARDRAIL MODS (TIARA) (AZ2000)
AZ2050	7	5	ARL MODS (TIARA) (AZ2050)
AZ2200	20	5	KIOWA WARRIOR (AZ2200)
AZ3000	31	8	AVIONICS SUPPORT EQUIPMENT (AZ3000)

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SSN	LINE	PAGE	NOMENCLATURE
AZ3100	32	8	COMMON GROUND EQUIPMENT (AZ3100)
AZ3110	33	8	AIRCREW INTEGRATED SYSTEMS (AZ3110)
AZ3300	35	8	INDUSTRIAL FACILITIES (AZ3300)
AZ3504	29	8	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)
AZ3507	30	8	ASE INFRARED CM (AZ3507)
AZ9999	38	8	CLOSED ACCOUNT ADJUSTMENT (AZ9999)

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## Exhibit P-1M, Procurement Programs - Modification Summary

<u>System/Modification</u>	<u>2000 &amp; Prior</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>To Complete</u>	<u>Total Program</u>
<b>GUARDRAIL MODS (TIARA) (AZ2000)</b>										
System 2 Block Upgrade	263.1									
GUARDRAIL Information Node (GRIFN)		17.6								
System 4 Remote Relay		4.8								
SIGINT Transition Program (STP)			5.1							
Interference Cancellation Sys/Radio Relay Sys			3.7							
JTT Upgrades										
DMS Upgrade										
<b>Total</b>	<b>263.1</b>	<b>22.4</b>	<b>8.8</b>							
<b>ARL MODS (TIARA) (AZ2050)</b>										
Superhawk Software Integ Trouble Rpts	2.0	1.3								
Upgrade to IMINT Suite	3.8	0.5								
B-Kits for Workstations		2.2								
Upgrade to DAMA Compliant Radio		2.5	3.4							
Airspace 2000			3.2							
Upgrade ARL-M4 & M5 IMINT Suites			3.3							
COMINT Upgrades			2.4							
Radar Replacement										
Tactical Common Data Link										
Aircraft Standardization										
Aircraft Survivability Equipment (ASE)										
Joint Tactical Terminal (JTT) Integration										
<b>Total</b>	<b>5.8</b>	<b>6.5</b>	<b>12.3</b>							
<b>AH-64 MODS (AA6605)</b>										
Backup Control System (BUCS)	19.7		3.6							
Airframe Modifications	25.2	3.8	7.4							

## Aircraft Procurement, Army Exhibit P-1M, Procurement Programs - Modification Summary

<u>System/Modification</u>	<u>2000 &amp; Prior</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>To Complete</u>	<u>Total Program</u>
TADS/PNVIS Upgrades	19.2	9.0	7.4							
MISC Mods and R&S Mods \$5M or less (No P3a set)	550.4	22.9	20.1							
National Guard Fielding										
<b>Total</b>	<b>614.5</b>	<b>35.7</b>	<b>38.5</b>							
<b>CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)</b>										
Total Ownership Cost Reduction		1.7	1.2							
Improved Battery		2.5	0.3							
Engine Filtration System			4.1							
Extended Range Fuel System	19.9	8.2	19.5							
Engine Upgrade to T55-GA-714A Configuration	263.9	99.3	124.1							
APU Upgrade	6.0	3.5	1.1							
Installation of Modifications Kits Various	30.2	0.8	0.9							
CH-47D Flight Simulator Upgrade			5.4							
CH-47F			121.0							
Component Recapitalization										
Low Maintenance Rotor Head										
Engine Fire Extinguisher (Halon Replacement)										
<b>Total</b>	<b>320.0</b>	<b>116.0</b>	<b>277.5</b>							
<b>CH-47 ICH (AA0254)</b>										
Improved Cargo Helicopter		53.4	126.4							
<b>Total</b>		<b>53.4</b>	<b>126.4</b>							
<b>UTILITY/CARGO AIRPLANE MODS (AA0270)</b>										
Avionics System Cockpit Upgrade	35.2	11.8	16.1							
<b>Total</b>	<b>35.2</b>	<b>11.8</b>	<b>16.1</b>							
<b>Longbow Apache Mods (AA6607)</b>										
Longbow Apache Mods	2075.9	608.4	768.6							

## Aircraft Procurement, Army Exhibit P-1M, Procurement Programs - Modification Summary

<u>System/Modification</u>	<u>2000 &amp; Prior</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>To Complete</u>	<u>Total Program</u>
<b>Total</b>	<b>2075.9</b>	<b>608.4</b>	<b>768.6</b>							
<b>UH-60 BLACK HAWK MODS (AA0492)</b>										
Crashworthy External Fuel System (CEFS)		3.0	17.3							
Search and Rescue (SAR) MODS	9.9	14.5								
Fire Hawk Kits	2.0	3.0								
UH-60M Selected Upgrade										
UH-60M Medical Equipment Package (MEP)										
Battery/Power Light Relocate (SLAB)	7.9	2.3	5.0							
UH-60Q MEDEVAC Upgrade			30.0							
Advanced Transmission Lubricant										
NVG Lighting Lower Console	10.2	0.5								
<b>Total</b>	<b>30.0</b>	<b>23.3</b>	<b>52.3</b>							
<b>KIOWA WARRIOR (AZ2200)</b>										
Crew Station Mission Equipment Trainer (CSMET)	19.0	1.3								
Safety Enhancement Program (SEP)	165.7	40.3	42.6							
<b>Total</b>	<b>184.7</b>	<b>41.5</b>	<b>42.6</b>							
<b>AIRBORNE AVIONICS (AA0700)</b>										
Doppler GPS Navigation System (DGNS) (AN/ASN-128B)	91.8	0.8								
Improved Data Modem (IDM)	80.6	32.2	42.9							
Advanced Avionics Technology Insertion (AATI)										
Aviation Mission Planning System (AMPS)	48.7	9.0	7.1							
Embedded GPS Inertial Navigation System (EGI) P3I	4.2	16.3	20.5							
DGNS (AN/ASN-128B) P3I		2.7	7.9							
<b>Total</b>	<b>225.3</b>	<b>61.0</b>	<b>78.4</b>							
<b>ASE MODS (SIRFC) (AA0720)</b>										
AN/ALQ-211 Suite of Integrated Radio Frequency CMS	141.0	4.4								

## Aircraft Procurement, Army Exhibit P-1M, Procurement Programs - Modification Summary

<u>System/Modification</u>	<u>2000 &amp; Prior</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>To Complete</u>	<u>Total Program</u>
Laser Detecting Set AN/AVR-2A(V)	30.6									
Advanced Threat Infrared Countermeasures (ATIRCM)	20.2									
<b>Total</b>	<b>191.9</b>	<b>4.4</b>								
<b>ASE MODS (ATIRCM) (AA0722)</b>										
Advanced Threat Infrared Countermeasures	4.9									
<b>Total</b>	<b>4.9</b>									
<b>GATM (AA0701)</b>										
Global Air Traffic Management - RW	2.9	3.2								
Global Air Traffic Management - FW	7.0	6.8								
<b>Total</b>	<b>9.9</b>	<b>10.0</b>								
<b>GATM - FIXED WING AIRCRAFT (AA0703)</b>										
Global Air Traffic Management - FW					25.9					
<b>Total</b>					<b>25.9</b>					
<b>Grand Total</b>	<b>3961.1</b>	<b>994.5</b>	<b>1447.4</b>							

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /1/AIRCRAFT

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	4											
Gross Cost	152.8	13.0	30.0									
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	152.8	13.0	30.0									
Initial Spares												
Total Proc Cost	152.8	13.0	30.0									
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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 CINC 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 Moving Target Indicator/Synthetic Aperture Radio (MTI/SAR). This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /1/AIRCRAFT

P-1 Item Nomenclature  
UTILITY F/W (MR) AIRCRAFT (A11300)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	17	5	1	1								
Gross Cost	73.4	26.8	5.3	7.5								
Less PY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Plus CY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Net Proc (P-1)	73.4	26.8	5.3	7.5								
Initial Spares												
Total Proc Cost	73.4	26.8	5.3	7.5								
Flyaway U/C												
Wpn Sys Proc U/C		5.4	5.3	7.5								

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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:**

FY 03 is funded to procure one aircraft. The UC-35 is the number one procurement program for the Fixed Wing PMO investment strategy and the Army's Aviation Modernization Plan. This aircraft fills the void for the Army's medium range aircraft requirement. Total program requires sixty-seven (67) aircraft. Continuation of this procurement program will greatly enhance the theater commander's medium range transportation capabilities. Furthermore, the UC-35 supports the transformation campaign plan by being a Legacy-to-Objective system.

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 1 / AIRCRAFT			P-1 Line Item Nomenclature: UTILITY F/W (MR) AIRCRAFT (A11300)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Aircraft Flyaway Costs													
Airframes/CFE		4900	1	4900	7000	1	7000						
Avionics		200			334								
<b>Subtotal Flyaway Costs</b>		<b>5100</b>			<b>7334</b>								
<b>Total Flyaway</b>		<b>5100</b>			<b>7334</b>								
<b>Support Cost</b>													
Peculiar Training Equipment													
Publications Tech/Data		1			1								
Other (specify) Net/ICS/Mfxsupt		192			195								
<b>Subtotal Support Costs</b>		<b>193</b>			<b>196</b>								
Gross P-1 End Cost													
Net P-1 Full Funding Cost													
Initial Spares													
<b>Total</b>		<b>5293</b>			<b>7530</b>								

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty		29	19	18	12							
Gross Cost	7962.2	294.7	199.3	204.4	196.4							
Less PY Adv Proc	2348.4	23.2	0.0	16.6	21.9							
Plus CY Adv Proc	2371.6	0.0	16.6	21.9	26.9							
Net Proc (P-1)	7985.5	271.5	215.8	209.8	201.4							
Initial Spares	417.8	3.5										
Total Proc Cost	8403.3	274.9	215.8	209.8	201.4							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

UH-60 BLACK HAWK and associated equipment.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /1/AIRCRAFT

P-1 Item Nomenclature  
UH-60 BLACK HAWK (MYP) (A05002)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	1480	29	19	18	12							
Gross Cost	7922.8	294.7	199.3	204.4	196.4							
Less PY Adv Proc	2348.4	23.2	0.0	16.6	21.9							
Plus CY Adv Proc	2371.6	0.0	16.6	21.9	26.9							
Net Proc (P-1)	7946.0	271.5	215.8	209.8	201.4							
Initial Spares	417.8	3.5										
Total Proc Cost	8363.8	274.9	215.8	209.8	201.4							
Flyaway U/C												
Wpn Sys Proc U/C		10181.0	10488.0	11356.0	16370.0							

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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 in 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:**

FY02 and FY03 funds are required for the procurement of aircraft, continuation of fielding, and to provide for PMO operations. The BLACK HAWK budget is predicated on the firm fixed prices in the FY97-01 Airframe multiservice multiyear contract. A follow-on multiservice, multiyear contract is being planned, with Economic Order Quantity funding commencing in FY 2001. The multiyear contract was approved by the House and Senate Authorization committees in their deliberations on the FY01 Budget request. Multiyear exhibits will be submitted after contract prices have been negotiated.

Weapon System Procurement U/C includes Gross Weapon System Cost and Initial Spares.  
Flyaway U/C is for the recurring portion only.

UH-60 Flight Simulators were previously procured on SSN A09400, but their upgrade (in FY02 (\$37.0M) and FY03 (\$16.6M)) is funded SSN A05002, affecting Weapon System Procurement Unit Cost.

Due to the absence of FY99 Advance Procurement funding, FY98 and FY99 Production funds were used for long lead GFE (including engines) to support the FY00/01 aircraft. This has the effect of artificially reducing the unit prices of these aircraft.

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 1 / AIRCRAFT			P-1 Line Item Nomenclature: UH-60 BLACK HAWK (MYP) (A05002)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>Aircraft Flyaway Costs</b>													
Airframes/CFE		144215	19	7590	127119	18	7062	101538	12	8462			
Engines/Accessories		4203	7	600				15680	24	653			
Avionics (GFE)		914			7852			5307					
Other GFE		539						2583					
Armament													
ECO (All FLYAWAY Components)		1215			5583			1960					
Other Costs (Mission Kits)		3			16179			2500					
<b>Subtotal Recurring FLYAWAY Costs</b>		<b>151089</b>			<b>156733</b>			<b>129568</b>					
<b>Non-Recurring Costs</b>													
Tooling Equipment													
Other Nonrecurring Cost		14585			16175								
<b>Total FLYAWAY</b>		<b>165674</b>			<b>172908</b>			<b>129568</b>					
<b>Support Cost</b>													
Airframe PGSE		277											
Engine PGSE													
Peculiar Training Equipment		1988						36967					
Publications/Tech Data		4173			5394			2799					
Engineering Change Orders													
PM Administration		24196			23202			23125					
Fielding		2958			2912			3980					
<b>Subtotal Support Cost</b>		<b>33592</b>			<b>31508</b>			<b>66871</b>					
<b>Gross P-1 End Item Cost</b>		<b>199266</b>			<b>204416</b>			<b>196439</b>					
Less: Prior Year Adv Proc					16554			21924					
<b>Net P-1 Full Funding Cost</b>		<b>199266</b>			<b>187862</b>			<b>174515</b>					
Plus: P-1 CY Adv Proc		16554			21924			26906					
Initial Spares													
<b>Total</b>		<b>215820</b>			<b>209786</b>			<b>201421</b>					

# Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / AIRCRAFT		Weapon System Type:			P-1 Line Item Nomenclature: UH-60 BLACK HAWK (MYP) (A05002)					
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Airframes/CFE</b>										
FY 2000	Sikorsky Aircraft Stratford CT	SSM/FP	AMCOM	Dec 99	Jun 00	9	6636	Yes		
FY 2000	Sikorsky Aircraft Stratford CT	SSM/FP	AMCOM	Mar 00	Jul 00	5	5730	Yes		
FY 2000	Sikorsky Aircraft Stratford CT	SSM/FP	AMCOM	Jul 00	Jan 01	5	11168	Yes		
FY 2001	Sikorsky Aircraft Stratford CT	SSM/FP	AMCOM	Nov 00	Dec 01	6	5761	Yes		
FY 2001	Sikorsky Aircraft Stratford CT	SSM/FP	AMCOM	DEC 00	APR 02	7	6505	Yes		
FY 2001	Sikorsky Aircraft Stratford CT	SSM/FP	AMCOM	APR 01	JUN 02	5	9405	Yes		
FY 2002	Sikorsky Aircraft Stratford CT	SSM/FP	AMCOM	Dec 01	Jul 02	12	8462	Yes		Sep 00
<b>Engines/Accessories</b>										
FY 2000	General Electric Lynn MA	SS/FP	AMCOM	Jun 00	Nov 00	7	600	Yes		
FY 2002	General Electric Lynn MA	SS/FP	AMCOM	Dec 00	Feb 01	14	637	Yes		
FY 2002	General Electric Lynn MA	SS/FP	AMCOM	Dec 01	Feb 03	10	676	Yes		

REMARKS: December 1999 and November 2000 Airframe awards for FY00 and FY01 respectively include both UH-60L hardware as well as the associated System/Project Management; March 2000 and December 2000 airframe contract awards reflect the exercise of aircraft options and include no System/Project Management. July 2000 and April 2001 contract awards involve both the exercising of options as well as the procurement of contract in line production modifications to convert to Congressionally directed HH-60L MEDEVAC and Fire Fighting configurations. FY02 and FY03 engine requirements are funded using a combination of prior year advance procurement and current year dollars.









# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc	2371.6	0.0	16.6	21.9	26.9							
Net Proc (P-1)	2371.6		16.6	21.9	26.9							
Initial Spares												
Total Proc Cost	2371.6		16.6	21.9	26.9							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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

**Justification:**

Advance Procurement requested for the airframe in FY00 supports the current FY97-01 multiyear contract. FY01 funding is for long lead items required to support the airframes being procured in FY02. Funding in FY02 and FY03 is for both EOQ and long lead items on the proposed FY02-06 multiyear contract. Advance procurement is also required for the procurement of GFE items, including the T700-GE-700 engine, APU, Crew Seats, and HIRSS, since their leadtime exceeds the leadtime of the aircraft (with long lead funding).

<b>Advance Procurement Requirements Analysis-Funding (P10A)</b>	First System Award Date:	First System Completion Date:	Date: June 2001
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Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army /1/AIRCRAFT	P-1 Line Item Nomenclature / Weapon System UH-60 BLACKHAWK (MYP)
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(\$ in Millions)														
	PTL (mos)	When Rqd (mos)	Pr Yrs	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	To Comp	Total
End Item Quantity			1480	29	19	18	10							1556
CFE Airframe	18	6	1459.2		16.3	11.0	15.4							1501.9
Engines	14	3	652.1			8.9	9.5							670.5
Avionics		3	124.3		0.3									124.6
Auxiliary Power Unit	15	3	42.9			0.8	0.8							44.5
Armored Crew Seat	12	3	21.1			0.5	0.6							22.2
Hover Infrared Suppressor	14	3	28.9			0.7	0.7							30.3
Elastomeric Bearings	10	3	1.5											1.5
Miscellaneous		3	41.6											41.6
<b>Total Advance Procurement</b>			2371.6	0.0	16.6	21.9	26.9	0.0	0.0	0.0	0.0	0.0	0.0	2437.0

Leadtime shown is the manufacturing (production) leadtime, i e the time from contract award to first delivery. 'When required' reflects the number of months after funding is received (December)that delivery is required. GFE delivery to prime contractor is required at least three months prior to end item delivery. CFE airframe is termination liability funding of both long leadtime as well Economic Order Quantity (EOQ) items. Engines are fully funded. Due to low production rates, avionics items are now being requisitioned from stock. Avionics and miscellaneous items are for numerous items with differing lead times.

**Advance Procurement Requirements Analysis-Funding (P10B)**

Date: June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /1/AIRCRAFT

P-1 Line Item Nomenclature / Weapon System  
UH-60 BLACKHAWK (MYP)

(\$ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2002			2003		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
CFE Airframe	18	1		10	Dec 01	15.4			
Engines	14	2	0.7	14	Dec 01	9.5			
Auxiliary Power Unit	15	1	0.1	10	Dec 01	0.8			
Armored Crew Seat	12	2	0.0	20	Dec 01	0.6			
Hover Infrared Suppressor	14	1	0.1	10	Dec 01	0.7			
<b>Total Advance Procurement</b>						27.0			0.0

Airframe will be procured on an FY02 through FY06 joint service multitear contract. The funding requested is for the termination liability associated with the procurement of parts in Economic Order Quantities (EOQ). Engine is being procured on an Indefinite Delivery, Indefinite Quantity (IDIQ) contract with option prices established by the calendar year of delivery. Firm option will be negotiated for APU, Armored Crew Seat, and HIRSS. Advance procurement funding is required for GFE, since engines, APUs, Crew Seats, and HIRSS are required at the contractor's facility three months after funding becomes available. The production leadtime of these items, coupled with the projected contract award date, necessitates the use of advance procurement funding. Unit price shown is the anticipated price of the item on the FY02 contract. Unit price not included for airframe (price is on P5), since funding requested is for termination liability.

**Advance Procurement Requirements Analysis-Funding (P10C)**

Date: June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /1/AIRCRAFT

P-1 Line Item Nomenclature / Weapon System  
UH-60 BLACKHAWK (MYP)

(\$ in Millions)

	Pr Yrs	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	To Comp	Total
<b>Proposal w/o AP</b>												
Then Year Cost				5	53							58
Constant Year Cost				5	52							57
Present Value				5	49							54
<b>AP Proposal</b>												
Then Year Cost				5	52							58
Constant Year Cost				5	52							57
Present Value				5	49							54
<b>AP Savings (Difference)</b>												
Then Year Cost				0	-0							-0
Constant Year Cost					-0							-0
Present Value					-0							-0

Costs shown are total program outlays. The AP proposal represents the current budget, including the Advance Procurement necessary to execute an FY02-06 airframe multiyear contract. Proposal without AP represents the estimated cost of single year contracting over the same time span. Constant dollars shown are FY01. A 4% discount factor was applied to the constant year dollars. It should be noted that even assuming single year contracting, some AP is required, since actual production lead time is greater than the effective production lead time. GFE items procured using Advance Procurement funds are not included, since they provide no cost benefit--they are procured in advance in order to support the airframe delivery schedule.

## Advance Procurement Requirements Analysis-Execution (P10D)

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /1/AIRCRAFT

P-1 Line Item Nomenclature / Weapon System  
UH-60 BLACKHAWK (MYP)

(\$ in Millions)

	PTL (mos)	2000					2001					2002		2003	
		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
End Item Quantity															
CFE Airframe	18	6	Feb 00	Feb 00	16.3	16.3	10	Dec 00	Dec 00	11.0	11.0	10	Dec 01		
Engines	14						14	Dec 00	Dec 00	8.9	8.9	14	Dec 01		
Avionics		10		Feb 00	0.3	0.3									
Auxiliary Power Unit	15						10	Mar 01	Dec 00	0.8	0.8	10	Dec 01		
Armored Crew Seat	12						20		Dec 00	0.5	0.5	20	Dec 01		
Hover Infrared Suppressor	14						10	Mar 01	Dec 00	0.7	0.7	10	Dec 01		
Elastomeric Bearings	10														
Miscellaneous															
<b>Total Advance Procurement</b>					16.6	16.6				21.9	21.9				

Airframe funding is for termination liability of long lead and Economic Order Quantity parts. The FY00 President's Budget requested \$13.1M for airframe termination liability and \$3.6M for the procurement of 6 engines with FY00 Advance procurement funds, and projected both contract awards in December, 1999. The FY01 President's Budget requested \$10.8M in FY01 for termination liability funding in support of 9 aircraft to be procured in FY02, \$7.4M to buy 12 T700-GE-701C engines, as well as funding to buy all known future program requirements for the Auxiliary Power Unit (25/\$1.9M) and the Hover Infrared Suppressor System (31/\$2.0M). Quantities have changed due to changes made to the outyear program in the Army Program Objective Memorandum (POM). Avionics, Elastomeric Bearings, and Miscellaneous GFE items are now requisitioned from the supply system using current year funds.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /1/AIRCRAFT

P-1 Item Nomenclature  
HELICOPTER NEW TRAINING (A06500)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	137			17								
Gross Cost	118.2			23.8								
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	118.2			23.8								
Initial Spares												
Total Proc Cost	118.2			23.8								
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The TH-67 Creek is a non-developmental commercial, three-seated, single engine, training helicopter with two main rotor blades. It is a variant of the Bell 206B-3 commercial helicopter. The aircraft is used exclusively at the US Army Aviation Center (USAAVNC), Fort Rucker for Initial Entry Rotor Wing (IERW) training. It is designed to provide safe, effective, and economical in-flight training when used to demonstrate and practice basic helicopter pilot skills.

This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 1 / AIRCRAFT			P-1 Line Item Nomenclature: HELICOPTER NEW TRAINING (A06500)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AIRCRAFT					22559	17	1327						
SUPPORT COSTS					1221								
<b>Total</b>					<b>23780</b>								

# Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 1 / AIRCRAFT

Weapon System Type:

P-1 Line Item Nomenclature:  
HELICOPTER NEW TRAINING (A06500)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>AIRCRAFT</b> FY 2001	Bell Helicopter Ft. Worth, TX	SS/FP	Redstone Arsenal, AL	Mar 01	Sep 01	17	1327			Oct 00

REMARKS:



# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	605.5	43.5	23.6	22.4	8.8							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	605.5	43.5	23.6	22.4	8.8							
Initial Spares	9.3	1.8	5.2									
Total Proc Cost	614.8	45.3	28.8	22.4	8.8							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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. It provides intelligence data via CTT/JTT to other INTEL users, such as Common Ground Station (CGS) and All Source Analysis System (ASAS) via the Tactical Information Broadcast Service (TIBS) and Tactical Reconnaissance Intelligence Exchange System (TRIXS), etc networks. The Army's GUARDRAIL/Common Sensor (GRCS) system 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 locations, 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-12H/K/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. This system supports the Legacy path of the Transformation Campaign Plan (TCP).

**Justification:**

FY02 funds provide for the purchase of three Interference Cancellation Systems (ICS)/Radio Relay Systems (RRS) for System 3 to round out the 3 RC-12 aircraft in Korea, and initiation of the SIGINT Transition Program (STP) that will integrate advanced signal intelligence upgrades into the fielded GUARDRAIL Systems. FY03 funds provide for replacement of the Commander's Tactical Terminal (CTT-1) reporting terminals in the GRCS Reporting subsystem with the Joint Tactical Terminal (JTT). FY03 funds also provide for continuing STP efforts.

**Exhibit P-40M, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
System 2 Block Upgrade											
1-96-666-6666		263.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	263.1
GUARDRAIL Information Node (GRIFN)											
1-01-111-1111	Operational	0.0	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6
System 4 Remote Relay											
1-01-222-2222		0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
SIGINT Transition Program (STP)											
1-02-111-1111		0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	5.1
Interference Cancellation Sys/Radio Relay Sys											
1-02-222-2222		0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	3.7
JTT Upgrades											
1-03-111-1111		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DMS Upgrade											
1-04-111-1111		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals		263.1	22.4	8.8	0.0	0.0	0.0	0.0	0.0	0.0	294.3

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: SIGINT Transition Program (STP) [MOD 4] 1-02-111-1111

MODELS OF SYSTEM AFFECTED: GUARDRAIL/Common Sensor Systems 1, 2, & 4

DESCRIPTION/JUSTIFICATION:

This modification integrates advanced signal intelligence (SIGINT) upgrades into the fielded GUARDRAIL systems. The modification includes hardware and software upgrades to handle advanced digital communication signals including: wideband commercial communications, the expanded set of LPI signals and the communications systems expected to make up the Integrated Battle Area Communications System (IBACS). This effort will extend the useful life of GRCS systems. Hardware and software will be developed under the Guardrail/ACS R&D line (D028). Items selected for fielding will include hardware and software which will provide the biggest payback in increasing capabilities. STP upgrades will have application to other Army INTEL collection efforts, such as Air Reconnaissance - Low (ARL), Prophet and the future ISR platform Aerial Common Sensor (ACS). There is potential application for other DoD INTEL collection platforms, including Rivet Joint, EP-3 and Senior Scout. Funding in FY02 will purchase data transport kits. Funding in FY 03 thru FY 05 will purchase Precision Embedded COMINT System (PECS) and Common SIGINT Product (CSP) equipment and installation to meet above-referenced threats.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contract Award Sys 4&1 Data Transport	1QFY02
Install Data Transport Sys 4&1	2-3QFY03
Contract Award CSP/PECS Sys 4	1QFY03
Contract Award CSP/PECS Sys 1&2	1QFY04
Contract Award CSP	1QFY05
Install CSP & PECS Sys 1,2,4	3QFY03-4QFY05

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:		ADMINISTRATIVE LEADTIME:	2 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002		FY 2003		FY 2004
Delivery Date:	FY 2002		FY 2003		FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): SIGINT Transition Program (STP) [MOD 4] 1-02-111-1111

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits																				
Equipment -Data Transport					16	4.9														4.9
Equipment - PECS																				
Equipment - CSP																				
Ancillary Equip - Data Transport																				
Ancillary Equipment PECS																				
Ancillary Equipment - CSP																				
Gov't In House/Program Mgmt						0.2														0.2
Test and Integration																				
Training and Logistics																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip																				
FY 2003 Equip																				
FY 2004/2005 Equip																				
FY 2005 Equip -- Kits																				
Fielding																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		0.0		5.1		0.0		0.0		0.0		0.0		0.0		0.0		5.1

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Interference Cancellation Sys/Radio Relay Sys [MOD 5] 1-02-222-2222

MODELS OF SYSTEM AFFECTED: GUARDRAIL/Common Sensor System 3

DESCRIPTION/JUSTIFICATION:

Funding provides for purchase of three Interference Cancellation Systems/Radio Relay Systems (ICS/RRS) for System 3. Funding allows for round out of the three RC-12D aircraft in Korea to give the 3rd MI nine CTT/JTT TRIXS-capable aircraft. Because the RC-12 H system currently has base capability, no additional data or training will be required.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contract Award 1QFY02  
 Installation 3QFY03

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002 ADMINISTRATIVE LEADTIME: 1 Months PRODUCTION LEADTIME: 15 Months  
 Delivery Date: FY 2002 FY 2003 FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Interference Cancellation Sys/Radio Relay Sys [MOD 5] 1-02-222-2222

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits					3	0.1														0.1
Installation Kits, Nonrecurring						0.2														0.2
Equipment						2.8														2.8
Equipment, Nonrecurring						0.5														0.5
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Fielding																				
Gov't In House/Program Mgmt						0.1														0.1
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		0.0		3.7		0.0		0.0		0.0		0.0		0.0		0.0		3.7

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
ARL MODS (TIARA) (AZ2050)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost			5.8	6.5	12.3							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)			5.8	6.5	12.3							
Initial Spares												
Total Proc Cost			5.8	6.5	12.3							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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 CINC 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 COMINT 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 COMINT and near real time IMINT collection support to Joint Task Force (JTF) Commanders. ARL is a multi-echelon level, multi-INT (combined COMINT 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 Moving Target Indicator/Synthetic Aperture Radio (MTI/SAR). ARL is configured to allow interoperability with other Army and DOD communications networks such as, Common Ground Station (CGS), the Tactical Exploitation System (TES) and other networks using Tactical Common Data Links (TCDLs). This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

**Exhibit P-40C, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature

ARL MODS (TIARA) (AZ2050)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

**Justification:**

JUSTIFICATION: FY02 will provide funding for the procurement and installation of Demand Assigned Multiple Access (DAMA) compliant radios mandated for Tactical Satellite communications on the ARL-C and four ARL-M. FY 02 funds will also provide for further software retrofits and improvements to existing COMINT suites, Airspace 2000 compliance for ARL-C, and upgrades for the ARL M4 & M5 IMINT Suites. FY03 funds will provide further COMINT upgrades, aircraft standardization, Aircraft Survivability Equipment (ASE), Joint Tactical Terminal (JTT) Integration and Tactical Control Data Link (TCDL) hardware procurement and begin ARL radar replacement.

# Exhibit P-40M, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
ARL MODS (TIARA) (AZ2050)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Superhawk Software Integ Trouble Rpts											
0-00-00-0000	Operational	2.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Upgrade to IMINT Suite											
1-11-11-0000	Operational	3.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
B-Kits for Workstations											
2-22-22-0000	Operational	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Upgrade to DAMA Compliant Radio											
3-33-333-0000	Operational	0.0	2.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	6.0
Airspace 2000											
4-44-44-0000	Operational	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	3.2
Upgrade ARL-M4 & M5 IMINT Suites											
5-55-55-0000	Operational	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	3.3
COMINT Upgrades											
6-66-66-0000	Operational	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	2.4
Radar Replacement											
7-77-00-0000	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tactical Common Data Link											
8-88-88-0000	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aircraft Standardization											
9-99-99-0000	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Exhibit P-40M, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
ARL MODS (TIARA) (AZ2050)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Aircraft Survivability Equipment (ASE)											
0-10-00-0000	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Joint Tactical Terminal (JTT) Integration											
0-11-00-0000	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals		5.8	6.5	12.4	0.0	0.0	0.0	0.0	0.0	0.0	24.7

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Upgrade to DAMA Compliant Radio [MOD 4] 3-33-333-0000

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

DESCRIPTION/JUSTIFICATION:

This modification replaces the current LST-5 radios in the ARL with Demand Assigned Multiple Access (DAMA) radios. This modification also provides for the upgrade of communications suites including all required hardware and software modifications. The modifications will be accomplished by contractor at the systems field site. FY01 funds for the purchase of equipment and rack changes required for the two ARL-C aircraft. FY02 funds the modification of the 3 ARL-M aircrafts (M1, M2, M3) and installation of the radios and system flight test. This 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
Contract Option	3QFY01	1QFY02
System Status Review	3QFY01	1QFY02
Airframe Modification	1QFY02	3QFY02
Radio integration and Test	4QFY02	2QFY03
System acceptance	4QFY02	2QFY03

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals					1															
Inputs					2		3													
Outputs								2												

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002  
 Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

1 Months  
 FY 2003  
 FY 2003

PRODUCTION LEADTIME:

12 Months  
 FY 2004  
 FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Upgrade to DAMA Compliant Radio [MOD 4] 3-33-333-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits			2	0.4	3	0.6														1.0
Installation Kits, Nonrecurring				0.3																0.3
Equipment				0.6		0.9														1.5
Govt In-House/Program Mgt				0.2		0.2														0.4
Engineering Change Orders				0.2		0.1														0.3
Data				0.3																0.3
Training Equipment				0.1																0.1
Support Equipment/Other				0.2		0.3														0.5
Contractor Engineering				0.2		0.2														0.4
Test						0.6														0.6
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits					2	0.6														0.6
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>		0.0		0.0	2	0.6		0.0		0.0		0.0		0.0		0.0		0.0		0.6
<b>Total Procurement Cost</b>		0.0		2.5		3.5		0.0		0.0		0.0		0.0		0.0		0.0		6.0

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Airspace 2000 [MOD 5] 4-44-44-0000

MODELS OF SYSTEM AFFECTED: ARL-C

DESCRIPTION/JUSTIFICATION:

Certain avionics systems are needed to operate in the Republic of Korea (ROK) and European airspace. Airspace 2000 provides cockpit modifications necessary to comply with these overseas airspace requirements. FY02 funds the modification of the ARL-C to the common flight status configuration baseline including TCAS-2, 8.33 KHz radio frequency spacing (FANS/GATM). Without this modification air traffic regulations will restrict the deployment of ARL.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contract Option	1QFY02
Design Review	2QFY02
Integrated System Test	4QFY02
Fielding(s)	4QFY02

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs								2												
Outputs								2												

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002  
 Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

1 Months  
 FY 2003  
 FY 2003

PRODUCTION LEADTIME:

6 Months  
 FY 2004  
 FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Airspace 2000 [MOD 5] 4-44-44-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits					2	0.4														0.4
Installation Kits, Nonrecurring																				
Equipment						0.9														0.9
Equipment, Nonrecurring						0.2														0.2
Software Modifications						0.3														0.3
Data						0.2														0.2
Training/Fielding						0.4														0.4
Testing						0.2														0.2
Gov't In-House/Prog Mgt						0.1														0.1
Contractor Engineering						0.2														0.2
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits					2	0.3														0.3
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>		0.0		0.0	2	0.3		0.0		0.0		0.0		0.0		0.0		0.0		0.3
<b>Total Procurement Cost</b>		0.0		0.0		3.2		0.0		0.0		0.0		0.0		0.0		0.0		3.2

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Upgrade ARL-M4 & M5 IMINT Suites [MOD 6] 5-55-55-0000

MODELS OF SYSTEM AFFECTED: ARL-M

DESCRIPTION/JUSTIFICATION:

FY02 funds upgrade of the ARL-M4 and M5 Imagery Intelligence (IMINT), Electro-optics/Infrared (EO/IR) capabilities to latest standards. The upgrade will provide increased target location accuracy, target acquisition and tracking. It will also increase resolution and avoid obsolescence issues. The upgrade is required to maintain operational effectiveness and prevent subsystem obsolescence.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contract Option	1QFY02
Design Review	2QFY02
Integrated System Test	4QFY02
Fielding(s)	4QFY02

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs								2												
Outputs								2												

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:		ADMINISTRATIVE LEADTIME:	1 Months	PRODUCTION LEADTIME:	6 Months
Contract Dates:	FY 2002		FY 2003		FY 2004
Delivery Date:	FY 2002		FY 2003		FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Upgrade ARL-M4 & M5 IMINT Suites [MOD 6] 5-55-55-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits					2	0.2														0.2
Installation Kits, Nonrecurring																				
Equipment						0.6														0.6
Equipment, Nonrecurring																				
Software Modifications						1.5														1.5
Data						0.2														0.2
Training Equipment						0.1														0.1
Testing						0.3														0.3
Gov't In-House/Program Mgt						0.1														0.1
Contractor Engineering						0.1														0.1
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits					2	0.2														0.2
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>		0.0		0.0	2	0.2		0.0		0.0		0.0		0.0		0.0		0.0		0.2
<b>Total Procurement Cost</b>		0.0		0.0		3.3		0.0		0.0		0.0		0.0		0.0		0.0		3.3

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: COMINT Upgrades [MOD 7] 6-66-66-0000

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

DESCRIPTION/JUSTIFICATION:

Funding provides for modifications to the communications intelligent (COMINT) subsystem in the ARL fleet to expand intercept and direction finding capabilities, e.g., SRE. FY02 funds will procure this upgrade for the first two ARLs. FY03 thru FY05 funds will procure and install these upgrades into the other ARL platforms to complete the fleet upgrade. FY04-FY05 will fund additional software/equipment to increase range and frequency through insertion of COTS products. (FY05 Final Year of funding for ARL; \$.8 of FY05 will be used to support installation of final two COMINT upgrades in FY06.)

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Contract Option	1QFY02	1QFY03	1QFY04	1QFY05
System Review	2QFY02	2QFY03	2QFY04	2QFY05
Integrated System Test	1QFY03	1QFY04	1QFY05	1QFY06
Field Modification	2QFY03	2QFY04	2QFY05	2QFY06

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002

Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

FY 2003

FY 2003

3 Months

PRODUCTION LEADTIME:

FY 2004

FY 2004

10 Months

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): COMINT Upgrades [MOD 7] 6-66-66-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits					2	0.2														0.2
Installation Kits, Nonrecurring						0.1														0.1
Equipment						0.8														0.8
Data						0.5														0.5
Software/ECO's																				
Testing						0.2														0.2
Training						0.1														0.1
Support Equipment						0.1														0.1
Gov't In-House/Program Mgt						0.2														0.2
Contractor Engineering						0.2														0.2
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
<b>Total Procurement Cost</b>		0.0		0.0		2.4		0.0		0.0		0.0		0.0		0.0		0.0		2.4

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
AH-64 MODS (AA6605)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

AA6607, AA6608, AA0978, PE23744 D508 & 50A

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	506.7	50.3	57.6	35.7	38.5							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	506.7	50.3	57.6	35.7	38.5							
Initial Spares												
Total Proc Cost	506.7	50.3	57.6	35.7	38.5							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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.

This system supports the Legacy ("L") transition path of the Transformation Campaign Plan (TCP).

**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 FY02/03 is for the Backup Control System (BUCS), airframe modifications, TADS/PNVS upgrades, misc mods \$5M or less, and National Guard (NG) fielding.

# Exhibit P-40M, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
AH-64 MODS (AA6605)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

AA6607, AA6608, AA0978, PE23744 D508 & 50A

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Backup Control System (BUCS)											
1-86-01-2025		19.7	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	23.3
Airframe Modifications											
1-95-01-2007		25.2	3.8	7.4	0.0	0.0	0.0	0.0	0.0	0.0	36.4
TADS/PNVS Upgrades											
1-94-01-2005		19.2	9.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	35.6
MISC Mods and R&S Mods \$5M or less (No P3a set)											
NA		550.4	22.9	20.1	0.0	0.0	0.0	0.0	0.0	0.0	593.4
National Guard Fielding											
NA		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals		614.5	35.7	38.5	0.0	0.0	0.0	0.0	0.0	0.0	688.7

**INDIVIDUAL MODIFICATION**

Date: June 2001

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

MODELS OF SYSTEM AFFECTED: AH-64 Apache

DESCRIPTION/JUSTIFICATION:

Operational requirement.

This modification is required to bring all AH-64 Apache aircraft to a BUCS active configuration. Modification includes a redesign of the BUCS. The redesign has been accomplished on Longbow aircraft, Lots 2-4 (134 a/c), as part of D Model remanufacture effort. Additionally, twenty-four (24) Longbow Apache Lot I aircraft have been retrofitted (and Lots 5-10 are funded by the Longbow reman line).

Finally, 241 A Model aircraft will be retrofitted to a BUCS active configuration in FY 02-07. This quantity represents those A Model Apaches that will not be remanufactured to the Longbow configuration.

Installation costs are included in the contract and are not broken out separately.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Initial 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	158							6												
Outputs	158							6												

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2002 Dec 01

ADMINISTRATIVE LEADTIME:

2 Months

PRODUCTION LEADTIME:

8 Months

Delivery Date:

FY 2002 Aug 02

FY 2003 Dec 02

FY 2003 Aug 03

FY 2004 Dec 03

FY 2004 Aug 04

**INDIVIDUAL MODIFICATION**

Date: June 2001

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
<b>RDT&amp;E</b>																					
<b>Procurement</b>																					
Kit Quantity	24				26																
Installation Kits		2.0				3.6															5.6
Installation Kits, Nonrecurring																					
Equipment	134	7.5																			7.5
Equipment, Nonrecurring		7.6																			7.6
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other		0.1																			0.1
Interim Contractor Support		2.5																			2.5
<b>Installation of Hardware</b>																					
FY 2000 & Prior Equip -- Kits	158																				
FY 2001 -- Kits																					
FY 2002 Equip -- Kits					6																
FY 2003 Equip -- Kits																					
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
<b>Total Installment</b>	158	0.0		0.0	6	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	0.0
<b>Total Procurement Cost</b>		19.7		0.0		3.6		0.0		0.0		0.0		0.0		0.0		0.0		0.0	23.3

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Airframe Modifications [MOD 2] 1-95-01-2007

MODELS OF SYSTEM AFFECTED: AH- 64 Apache

DESCRIPTION/JUSTIFICATION:

Operational and logistical improvement.

These modifications provide for the strengthening of 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 330 AH-64A aircraft retrofitted.

In addition, starting in FY 02, 241 AH-64A aircraft that will not be remanufactured into Longbows will be retrofitted with additional airframe modifications to include spider mount, wing pylon upgrade, and FS176 upgrade.

Installation costs are 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 330 AH-64A Apaches. An additional 241 AH-64A Apaches that are not being remanufactured to Longbow configuration will be retrofitted with three additional airframe modifications starting in FY 02.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	205	19	19	20	20	11	12	12	12													
Outputs	161	31	31	30	30	11	12	12	12													

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002 Dec 01

ADMINISTRATIVE LEADTIME: 2 Months

FY 2003 Dec 02

PRODUCTION LEADTIME: 6 Months

FY 2004 Dec 03

Delivery Date: FY 2002 Jul 02

FY 2003 Jul 03

FY 2004 Jul 04

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Airframe Modifications [MOD 2] 1-95-01-2007

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity	283		47		75															
Installation Kits		23.3		3.8		7.4														34.5
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring Engineering Change Orders Data																				
Training Equipment Support Equipment Other																				
Interim Contractor Support		1.9																		1.9
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits	161		122																	
FY 2001 -- Kits					47															
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>	161	0.0	122	0.0	47	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
<b>Total Procurement Cost</b>		25.2		3.8		7.4		0.0		0.0		0.0		0.0		0.0		0.0		36.4

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: TADS/PNVS Upgrades [MOD 3] 1-94-01-2005

MODELS OF SYSTEM AFFECTED: AH-64 Apache

DESCRIPTION/JUSTIFICATION:

Operational, and logistical improvement.

Provides for system upgrade through new/updated hardware integration into Lots III thru XII TADS/PNVS systems. Facilitates maintainers' access to TADS/PNVS systems thereby allowing for accelerated application of outstanding ECPs. Additionally, satisfies program growth and life extension requirements and provides for offsite contractor support for upgrades/integration of hardware in the TADS/PNVS. Provides 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 modification of 241 A Model Apaches that will not be remanufactured into Longbows (in the FY 05-08 time frame).

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 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	203	18	11	15	15	15	15	15	15													
Outputs	143	15	15	15	15	17	17	15	15													

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2002 Dec 01

ADMINISTRATIVE LEADTIME:

2 Months

FY 2003 Dec 02

PRODUCTION LEADTIME:

7 Months

FY 2004 Dec 03

Delivery Date:

FY 2002 Jul 02

FY 2003 Jul 03

FY 2004 Jul 04

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): TADS/PNVS Upgrades [MOD 3] 1-94-01-2005

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	<b>RDT&amp;E</b>																				
<b>Procurement</b>																					
Kit Quantity	207		68		68																
Time & Mtls/CFE		15.3		5.5		5.9															26.7
Installation Kits, Nonrecurring																					
Equipment (GFE)		2.5		3.5		1.5															7.5
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data																					
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support		1.4																			1.4
<b>Installation of Hardware</b>																					
FY 2000 & Prior Equip -- Kits	143		60		4																
FY 2001 -- Kits					60																
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits																					
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
<b>Total Installment</b>	143	0.0	60	0.0	64	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	0.0
<b>Total Procurement Cost</b>		19.2		9.0		7.4		0.0		0.0		0.0		0.0		0.0		0.0		0.0	35.6

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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:

RDTE PE 0203744A

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	3757.6	80.4	114.9	90.0	303.4							
Less PY Adv Proc	940.0	0.0	0.0	0.0	26.0							
Plus CY Adv Proc	940.0	0.0	0.0	26.0	17.7							
Net Proc (P-1)	3757.6	80.4	114.9	116.0	295.2							
Initial Spares	260.4											
Total Proc Cost	4017.9	80.4	114.9	116.0	295.2							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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 integrates in a system of systems fashion to enhance 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. The CH-47F Operational Requirements Document (ORD) contains interoperability key performance parameters allowing the Chinook to operate on the digitized battlefield. The ORD is being revised to include the specific information exchange requirements. The budget line for SSN AA0254 has been consolidated with AA0252 starting in FY 02. The \$26.0M advanced procurement shown in FY 01 on AA0252 is from the AA0254 line for information only.

This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

(Note: An additional \$83.1 million of FY 2001 funding is contained on BLIN 12)

**Justification:**

FY 02 - 07 funding procures safety and operational modifications to the CH-47D fleet and trainers to maintain the latest configuration. Safety and operational modifications, to include component recapitalization, are planned for all fielded aircraft. These changes contribute to the effectiveness of heavy lift capability, maintainability, reliability, and aircraft/crew safety. The major modifications occurring during FY 02-07 are procurement of kits for Improved Battery, Conversion of the T55-L-712 to T55-GA-714A Engines, Auxiliary Power Unit Upgrade, Extended Range Fuel System, component recapitalization and conversion to CH-47F.

**Exhibit P-40M, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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:

RDTE PE 0203744A

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Total Ownership Cost Reduction											
0-00-00-0000	Operational	0.0	1.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	2.9
Improved Battery											
1-95-01-0822	Operational	0.0	2.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.8
Engine Filtration System											
1-93-01-0807	Operational	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Extended Range Fuel System											
1-97-01-822	Operational	19.9	8.1	19.5	0.0	0.0	0.0	0.0	0.0	0.0	47.5
Engine Upgrade to T55-GA-714A Configuration											
1-96-01-0828	Operational	263.9	99.5	124.2	0.0	0.0	0.0	0.0	0.0	0.0	487.6
APU Upgrade											
	Safety	6.0	3.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
Installation of Modifications Kits Various											
Various	Operational/Safety	30.2	0.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	31.9
CH-47D Flight Simulator Upgrade											
	Safety	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	5.4
CH-47F											
0-00-00-0000	Operational	0.0	0.0	121.0	0.0	0.0	0.0	0.0	0.0	0.0	121.0
Component Recapitalization											
0-00-00-0000	Reliability	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Exhibit P-40M, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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:

RDTE PE 0203744A

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Low Maintenance Rotor Head											
0-00-00-0000	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Engine Fire Extinguisher (Halon Replacement)											
0-00-00-0000	Operational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Totals		320.0	116.0	277.6	0.0	0.0	0.0	0.0	0.0	0.0	713.6

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Improved Battery [MOD 2] 1-95-01-0822

MODELS OF SYSTEM 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:

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

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005							
	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																
Outputs					58	58	59	59																

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:	Contract	ADMINISTRATIVE LEADTIME:	4 Months	PRODUCTION LEADTIME:	8 Months
Contract Dates:	FY 2002		FY 2003		FY 2004
Delivery Date:	FY 2002		FY 2003		FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Improved Battery [MOD 2] 1-95-01-0822

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Installation Kits			467	2.3																2.3
Batteries			467	0.2																0.2
Installation Kits, Nonrecurring																				
--																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits					234	0.3														0.3
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0	234	0.3		0.0		0.0		0.0		0.0		0.0		0.0		0.3
Total Procurement Cost		0.0		2.5		0.3		0.0		0.0		0.0		0.0		0.0		0.0		2.8

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Engine Filtration System [MOD 3] 1-93-01-0807

MODELS OF SYSTEM AFFECTED: CH-47D CHINOOK, MH-47E, and Trainers

DESCRIPTION/JUSTIFICATION:

Type of Improvement - Improved Operational Capability. This funding provides an engine filtration system to separate sand and dust at the engine inlet to allow clean air to flow into the engine. For missions requiring extended operation at very low altitudes over sand and dust terrain, separation of sand and dust at engine inlet is a necessity to assure normal engine life for sustained operations. Procurement of this system is essential to assure operation in sandy or dusty regions.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Design Review - Sep 99  
 Production Contract - Jan 02  
 Hardware Delivery - Sep 02  
 Field Instalation - Oct 02

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					
Outputs																					

METHOD OF IMPLEMENTATION:	Contract	ADMINISTRATIVE LEADTIME:	4 Months	PRODUCTION LEADTIME:	8 Months
Contract Dates:	FY 2002 Jan 02	FY 2003 Jan 03		FY 2004 Jan 04	
Delivery Date:	FY 2002 Sep 02	FY 2003 Sep 03		FY 2004 Sep 04	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Engine Filtration System [MOD 3] 1-93-01-0807

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
B-Kit Quantity					15	3.8														3.8
A-Kits					15	0.2														0.2
Logistics																				
PM Support						0.1														0.1
--																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		0.0		4.1		0.0		0.0		0.0		0.0		0.0		0.0		4.1

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Extended Range Fuel System [MOD 4] 1-97-01-822

MODELS OF SYSTEM 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 of 128 A-Kits, and 14 B-kits.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

- Production Contract Award - Aug 98
- Hardware Delivery - Jan 99
- Testing Completed - Jun 99
- Field Installation - Jun 99
- First Unit Equipped - Sep 99

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	148	30	30	30	30	25	25	25	23											
Outputs	148	30	30	30	30	25	25	25	23											

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:	Contract	ADMINISTRATIVE LEADTIME:	4 Months	PRODUCTION LEADTIME:	6 Months
Contract Dates:	FY 2002 Jan 02	FY 2003 Jan 03		FY 2004 Jan 04	
Delivery Date:	FY 2002 Jul 02	FY 2003 Jul 03		FY 2004 Jul 04	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Extended Range Fuel System [MOD 4] 1-97-01-822

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
ERFS II B-Kit	26	14.2	8	5.4	25	16.8														36.4
ERFS II A-Kit	177	2.1	60	0.8	66	0.9														3.8
Logistics		1.5		0.4		0.3														2.2
PM Admin Support		0.6		0.3		0.4														1.3
--																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits	148	1.5	120	1.2																2.7
FY 2001 -- Kits					98	1.1														1.1
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>	148	1.5	120	1.2	98	1.1		0.0		0.0		0.0		0.0		0.0		0.0		3.8
<b>Total Procurement Cost</b>		19.9		8.1		19.5		0.0		0.0		0.0		0.0		0.0		0.0		47.5

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Engine Upgrade to T55-GA-714A Configuration [MOD 5] 1-96-01-0828

MODELS OF SYSTEM 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: New 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:

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

Installation Schedule:

	Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
		Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	54	16	16	16	17	9	9	8	8														
Outputs	54	16	16	16	17	9	9	8	8														

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Inputs																							
Outputs																							

METHOD OF IMPLEMENTATION:	Contract	ADMINISTRATIVE LEADTIME:	4 Months	PRODUCTION LEADTIME:	18 Months
Contract Dates:	FY 2002 Jan 02	FY 2003 Jan 03		FY 2004 Jan 04	
Delivery Date:	FY 2002 Jun 03	FY 2003 Jun 04		FY 2004 Jun 05	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Engine Upgrade to T55-GA-714A Configuration [MOD 5] 1-96-01-0828

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
<b>RDT&amp;E</b>																					
<b>Procurement</b>																					
New Engines	276	187.3	87	76.7	104	98.0															362.0
Engine Fielding Kits	241	33.2	70	8.8	84	10.2															52.2
Airframe Kits	125	15.3	34	4.3	42	5.3															24.9
PM Admin Support		7.6		4.3		5.4															17.3
Logistics		18.2		2.7		3.8															24.7
--																					
--																					
--																					
--																					
--																					
<b>Installation of Hardware</b>																					
FY 2000 & Prior Equip -- Kits	54	2.3	65	2.7	6	0.3															5.3
FY 2001 -- Kits					28	1.2															1.2
FY 2002 Equip -- Kits																					
FY 2003 Equip -- Kits																					
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
<b>Total Installment</b>	54	2.3	65	2.7	34	1.5		0.0		0.0		0.0		0.0		0.0		0.0		0.0	6.5
<b>Total Procurement Cost</b>		263.9		99.5		124.2		0.0		0.0		0.0		0.0		0.0		0.0		0.0	487.6

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: APU Upgrade [MOD 6]

MODELS OF SYSTEM 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. Additionally, the APU goes through a recapitalization to increase the reliability and service life. The total buy of 540 kits includes the spare APUs that will be modified durring overhaul, 467 installations are on fielded aircraft. The containment shield 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:

Production Contract Award - Aug 99  
 Delivery Began - Jan 00  
 Installation Began - Jan 00

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	150	45	45	45	45	34	34	34	35													
Outputs	150	45	45	45	45	34	34	34	35													

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:	Contract	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	6 Months
Contract Dates:	FY 2002	FY 2003		FY 2004	
Delivery Date:	FY 2002	FY 2003		FY 2004	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): APU Upgrade [MOD 6]

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	360	4.1	180	2.1																6.2
Containment Sheilds	340	0.6																		0.6
PM Support		0.2		0.1		0.0														0.3
--																				
--																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits	150	1.1																		1.1
FY 2001 -- Kits			180	1.2																1.2
FY 2002 Equip -- Kits					137	1.0														1.0
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>	150	1.1	180	1.2	137	1.0		0.0		0.0		0.0		0.0		0.0		0.0		3.3
<b>Total Procurement Cost</b>		6.0		3.4		1.0		0.0		0.0		0.0		0.0		0.0		0.0		10.4

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Installation of Modifications Kits Various [MOD 7] Various

MODELS OF SYSTEM 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																					
Inputs	7349	185	185	185	185	145	145	145	145												
Outputs	7349	185	185	185	185	145	145	145	145												

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:	Contract	ADMINISTRATIVE LEADTIME:	0 Months	PRODUCTION LEADTIME:	0 Months
Contract Dates:	FY 2002		FY 2003		FY 2004
Delivery Date:	FY 2002		FY 2003		FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Installation of Modifications Kits Various [MOD 7] Various

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	8089	20.4																		20.4
--																				
--																				
--																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits	7349	9.8	740	0.8	580	0.9														11.5
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment	7349	9.8	740	0.8	580	0.9		0.0		0.0		0.0		0.0		0.0		0.0		11.5
Total Procurement Cost		30.2		0.8		0.9		0.0		0.0		0.0		0.0		0.0		0.0		31.9

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: CH-47D Flight Simulator Upgrade [MOD 8]

MODELS OF SYSTEM AFFECTED: CH-47D and Trainers

DESCRIPTION/JUSTIFICATION:

Type of Improvement - Safety. The six 2B31 flight simulators are based on 1970's technology and are very expensive to operate and maintain. This program upgrades the remaining four simulators not funded by other sources. Additionally, aircraft concurrency modifications to the simulator have fallen well behind the actual CH-47D aircraft, resulting in negative habit training transfer. Correction of this deficiency will reduce maintenance, resolve safety concerns, and increase reliability and maintainability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:	Contract	ADMINISTRATIVE LEADTIME:	4 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002 Jan 02	FY 2003 Jan 03		FY 2004 Jan 04	
Delivery Date:	FY 2002 Dec 02	FY 2003 Dec 03		FY 2004 Dec 04	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): CH-47D Flight Simulator Upgrade [MOD 8]

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Upgrade					1	5.0														5.0
Verification						0.4														0.4
--																				
--																				
--																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		0.0		5.4		0.0		0.0		0.0		0.0		0.0		0.0		5.4

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: CH-47F [MOD 9] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: CH-47D/F

DESCRIPTION/JUSTIFICATION:

The CH-47F is a rebuild program with selected upgrades. This program extends airframe service life, introduces an open electronic architecture that is compatible with the Army XXI digitized battlefield, and reduces 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 CH-47F. 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 CH-47F 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 431 CH-47D fleet.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

- EMD Contract Award - May 98
- Advanced Procurement/Plant Facilitation - Apr 01
- LRIP I Contract Award - Dec 01
- LRIP II Contract Award - Mar 03
- MS III Production Decision - Jan 04

Installation Schedule:

	Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005							
		Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs						1	3	3	3																
Outputs										1	3	3	3												
		FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals						
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
Inputs																									10
Outputs																									10

METHOD OF IMPLEMENTATION:	contract	ADMINISTRATIVE LEADTIME:	6 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002 Mar 02	FY 2003 Mar 03		FY 2004 Mar 04	
Delivery Date:	FY 2002 Feb 03	FY 2003 Feb 04		FY 2004 Feb 05	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): CH-47F [MOD 9] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
--																				
Recurring Production					10	66.9														66.9
Other Flyaway						11.0														11.0
Training Devices						29.0														29.0
Other Support						14.1														14.1
--																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		0.0		121.0		0.0		0.0		0.0		0.0		0.0		0.0		121.0

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
CH-47 CARGO HELICOPTER MODS (MYP)(Adv Proc) (AA0252)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc		0.0	0.0	26.0	17.7							
Net Proc (P-1)				26.0	17.7							
Initial Spares												
Total Proc Cost				26.0	17.7							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The CH-47F 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 CH-47F. 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 CH-47F 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. The budget line for SSN AA0254 has been consolidated with AA 0252 starting in FY02. The \$26.0M advanced procurement in FY01 on AA0252 is from the AA0254 line for information only. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

**Justification:**

FY 01-07 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 materials 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 (P10A)					First System Award Date:		First System Completion Date:		Date: June 2001					
Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT					P-1 Line Item Nomenclature / Weapon System CH-47 CARGO HELICOPTER MODS (MYP)									
(\$ in Millions)														
	PTL (mos)	When Rqd (mos)	Pr Yrs	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	To Comp	Total
Avionics	13	14				15.3	11.7							27.0
Airframe	15	16				10.7	6.0							16.7
<b>Total Advance Procurement</b>			0.0	0.0	0.0	26.0	17.7	0.0	0.0	0.0	0.0	0.0	0.0	43.7

**Advance Procurement Requirements Analysis-Funding (P10B)**

Date: June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Line Item Nomenclature / Weapon System  
CH-47 CARGO HELICOPTER MODS (MYP)

(\$ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2002			2003		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
End Item Quantity:									
Avionics	13	1	1.4	17	Jan	11.7			
Airframe	15	1	1.0	17	Jan	6.0			
<b>Total Advance Procurement</b>						17.7			0.0

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	26.0	9.2	12.0	11.8	16.1							
Less PY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Plus CY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Net Proc (P-1)	26.0	9.2	12.0	11.8	16.1							
Initial Spares												
Total Proc Cost	26.0	9.2	12.0	11.8	16.1							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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 Aircraft 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 02 and FY 03 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. 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. This SSN supports Legacy and Legacy-to-Objective Systems which relate to the Transformation Campaign Plan.



**INDIVIDUAL MODIFICATION**

Date: June 2001

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

MODELS OF SYSTEM AFFECTED: C-12F3, D1, D2, T, J, R; RC-12K, N, P, Q; C-26; UC-35A, B; C-23B, B+

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 Communications (SATCOM), Traffic Alert 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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	259	14	14	14		12	12	14												
Outputs	259			14	14	14	12	12												

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:

Contract Dates:	FY 2002	Dec 02	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	3 Months
Delivery Date:	FY 2002	Mar 02	FY 2003	Dec 03	FY 2004	Dec 04
			FY 2003	Mar 03	FY 2004	Mar 04

**INDIVIDUAL MODIFICATION**

Date: June 2001

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity																				
Installation Kits	259	28.8	42	8.6	38	12.7														50.1
Installation Kits, Nonrecurring Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data				0.1		0.1														0.2
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits	259	6.4																		6.4
FY 2001 -- Kits			42	3.1																3.1
FY 2002 Equip -- Kits					38	3.3														3.3
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>	259	6.4	42	3.1	38	3.3		0.0		0.0		0.0		0.0		0.0		0.0		12.8
<b>Total Procurement Cost</b>		35.2		11.8		16.1		0.0		0.0		0.0		0.0		0.0		0.0		63.1

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	323.2	0.1	0.5	0.5	0.5							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	323.2	0.1	0.5	0.5	0.5							
Initial Spares	1.2											
Total Proc Cost	324.4	0.1	0.5	0.5	0.5							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The OH-58A&C model helicopters are low silhouette, single rotor helicopters powered by a single gas turbine engine (T63-A-720) used for observation, scout (no weapons), 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 upgrades and state of the art instrumentation. The programs also provide for integration of the SINCGARS-VHF-FM Radio, Combat Lighting for Night Vision, an External Three-Micron Engine Oil Filter, Global Positioning Systems. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

**Justification:**

Programmed funds are for safety enhancements and/or operational improvements required to meet mission requirements until phase out. Failure to provide funding will result in the degradation of the aircraft and mission package, impacting safety, readiness and combat support capability.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	9.8	1.1	0.8	0.7	0.8							
Less PY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Plus CY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Net Proc (P-1)	9.8	1.1	0.8	0.7	0.8							
Initial Spares												
Total Proc Cost	9.8	1.1	0.8	0.7	0.8							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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. Furthermore, 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 02/03 funds will be used for upgrading C-20 Global Positioning Systems (GPS) and installation of navigation equipment needed to support the crew in meeting the demands of the future air navigation system. Funds will be used to meet evolving 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. The C-20 is a legacy system and the C-37 is a Legacy-to- Objective aircraft, in the Transformation Campaign Plan.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
LONGBOW (AA6670)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSNs AA6607/6608, PE 23744 D508

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	1400.6	610.2	792.2	755.7	923.2							
Less PY Adv Proc	164.2	36.9	43.2	35.4	34.7							
Plus CY Adv Proc	201.1	43.2	35.4	34.7	29.5							
Net Proc (P-1)	1437.5	616.4	784.5	755.0	918.1							
Initial Spares	15.4	16.7	7.3	13.0	1.4							
Total Proc Cost	1452.9	633.1	791.8	768.0	919.5							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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. Two hundred twenty-seven 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). Provides funding for the Modernized TADS/PNVS (M-TADS/PNVS, formally known as Second Generation FLIR, on 501 Longbow aircraft. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

**Justification:**

FY 02/03 funds buys 60/74 aircraft, 57 FCRs in FY02, and resolution of obsolescence issues in FY03, including associated support equipment, tooling, GFE, training devices, reman/retrofit of reliability/safety fixes, and focused component recap on Longbow aircraft. 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) was signed on 29 September 2000. Airframe quantities and funding reflect the multi-year (MY) scenario. Multiyear contracts for the FCR mission kit were signed in Nov 97. Quantities and funding reflect this multiyear scenario. 501 AH-64A Apaches will be remanufactured to the AH-64D configuration with 227 Longbows being equipped with the FCR kits and 701C engines.

Initial spares includes FCR components.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
LONGBOW APACHE MODS (AA6607)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSNs AA6670/6608, PE23744 D508

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	92	66	74	52	60							
Gross Cost	1073.5	501.3	666.4	632.8	794.7							
Less PY Adv Proc	106.7	26.4	32.2	24.4	26.2							
Plus CY Adv Proc	133.1	32.2	24.4	26.2	29.5							
Net Proc (P-1)	1099.8	507.1	658.6	634.6	798.1							
Initial Spares	15.4	16.7	7.3	13.0	1.4							
Total Proc Cost	1115.2	523.9	665.9	647.6	799.5							
Flyaway U/C												
Wpn Sys Proc U/C		7.7	8.9	12.2	13.3							

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

**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. Two hundred twenty seven (227) 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). Provides funding for Modernized TADS/PNVS (M-TADS/PNVS), formally known as Second Generation FLIR, on 501 Longbow aircraft. This system supports the Legacy transition path of the Transformation Campaign Plan.

**Justification:**

FY 02/03 procures 60/74 aircraft, and 57 FCRs and obsolescence issues, including associated support equipment, tooling, GFE, training devices, reman/retrofit reliability and safety fixes, and focused component recap on Longbow aircraft. 501 AH-64A Apaches will be remanufactured to the AH-64D configuration with 227 Longbow aircraft being equipped with the FCR kits and 701C engines.







**Exhibit P-40M, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
LONGBOW APACHE MODS (AA6607)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSNs AA6670/6608, PE23744 D508

Description

Fiscal Years

OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Longbow Apache Mods											
NA	NA	2075.7	608.5	768.6	0.0	0.0	0.0	0.0	0.0	0.0	3452.8
Totals		2075.7	608.5	768.6	0.0	0.0	0.0	0.0	0.0	0.0	3452.8

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Longbow Apache Mods [MOD 1] NA

MODELS OF SYSTEM AFFECTED: Longbow Apache

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, 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 capability. Provides funding for Modernized TADS/PNVS (M-TADS/PNVS), formally known as Second Generation FLIR, on 501 aircraft starting in FY03. Procures reman/retrofit reliability and safety fixes, and focused component recap on Longbow aircraft. Procures 23 Longbow Crew Trainers, and one Longbow Crew Trainer System.

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, 29 September 00  
 Funding Action for Lot VI, Dec 00

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs																				
Outputs																				

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:

Contract Dates:	FY 2002	Dec 01	ADMINISTRATIVE LEADTIME:	2 Months	PRODUCTION LEADTIME:	15 Months
Delivery Date:	FY 2002	Mar 03	FY 2003	Dec 02	FY 2004	Dec 03
			FY 2003	Mar 04	FY 2004	Mar 05

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Longbow Apache Mods [MOD 1] NA

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity	232		52		60															
Recurring		1301.2		332.7		383.4														2017.3
Other Flyaway		314.2		132.9		229.6														676.7
Training Devices		261.6		94.1		95.1														450.8
Other Support		198.7		48.8		60.5														308.0
Modernized TADS/PNVS																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		2075.7		608.5		768.6		0.0		0.0		0.0		0.0		0.0		0.0		3452.8

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
APACHE LONGBOW FCR (AA6608)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSNs AA6670/6607, PE23744 D508

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	41	40	45	44	57							
Gross Cost	327.1	108.9	125.9	122.9	128.5							
Less PY Adv Proc	57.5	10.6	11.0	11.0	8.5							
Plus CY Adv Proc	68.1	11.0	11.0	8.5	0.0							
Net Proc (P-1)	337.7	109.2	125.9	120.4	120.0							
Initial Spares												
Total Proc Cost	337.7	109.2	125.9	120.4	120.0							
Flyaway U/C												
Wpn Sys Proc U/C		2.7	2.8	2.7	2.1							

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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. Two hundred twenty-seven 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 obscuration. 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). This system supports the Legacy transition path of the Transformation Campaign Plan (TCP)

**Justification:**

FY 02/03 procures 57 and resolutions for obsolescence issues. FCR quantities and funding reflects multiyear procurements for FY 98-02. 501 AH-64A Apaches will be remanufactured to the AH-64D configuration with 227 Longbow aircraft being equipped with the FCR mission kits and 701C engines.

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



**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Apache Longbow FCR [MOD 1] NA

MODELS OF SYSTEM AFFECTED: Longbow Apache

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. Procures a total of 227 FCRs

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 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs																				
Outputs																				

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: Modification ADMINISTRATIVE LEADTIME: 2 Months PRODUCTION LEADTIME: 15 Months  
 Contract Dates: FY 2002 Nov 01 FY 2003 FY 2004  
 Delivery Date: FY 2002 Jan 03 FY 2003 FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Apache Longbow FCR [MOD 1] NA

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Quantity	126		44		57															
Recurring		482.8		111.8		120.0														714.6
Other Flyaway																				
Other																				
--																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		482.8		111.8		120.0		0.0		0.0		0.0		0.0		0.0		0.0		714.6

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
LONGBOW(Adv Proc) (AA6670)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSNs AA6607/6608, PE23744 D508

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc	201.1	43.2	35.4	34.7	29.5							
Net Proc (P-1)	201.1	43.2	35.4	34.7	29.5							
Initial Spares												
Total Proc Cost	201.1	43.2	35.4	34.7	29.5							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The Longbow program encompasses modification to 501 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 the radar frequency (RF) missile. Longbow provides an adverse weather fire-and-forget missile capability that increases 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. This system supports the Legacy transition path of the Transformation Campaign Plan (TCP)

**Justification:**

FY 02/03 procures long lead items for AH-64D aircraft. Five hundred one (501) AH-64A Apaches will be remanufactured to the AH-64D configuration with 227 Longbow aircraft being equipped with the FCR and 701C engines. FY02 funds Advanced 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.

<b>Advance Procurement Requirements Analysis-Funding (P10A)</b>	First System Award Date:	First System Completion Date:	Date: June 2001
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Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT	P-1 Line Item Nomenclature / Weapon System LONGBOW
--	---

(\$ in Millions)														
	PTL (mos)	When Rqd (mos)	Pr Yrs	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07	To Comp	Total
End item Quantity			92	66	74	52	60							344
Airframe	12	12	133.1	32.2	24.4	26.2	29.5							245.3
GFE-FCR Kit	12	12	68.1	11.0	11.0	8.5								98.6
<b>Total Advance Procurement</b>			201.1	43.2	35.4	34.7	29.5	0.0	0.0	0.0	0.0	0.0	0.0	343.9

**Advance Procurement Requirements Analysis-Funding (P10B)**

Date: June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Line Item Nomenclature / Weapon System  
LONGBOW

(\$ in Millions)

	PLT (mos)	Quantity Per Assembly	Unit Cost	2002			2003		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
End Item Quantity:									
Airframe	12			74	Dec 01	29.5			
<b>Total Advance Procurement</b>						29.6			0.1

FY02/03 advanced procurement funding represents longlead requirements for FY03/04 procurement quantities.

### Advance Procurement Requirements Analysis-Execution (P10D)

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Line Item Nomenclature / Weapon System  
LONGBOW

(\$ in Millions)

	PTL (mos)	2000					2001 AA6607/6608, PE23744 D508					2002		2003	
		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
End item Quantity															
Airframe	12	52	Dec 99	Dec 99	24.4	24.4	60	Dec 00	Dec 00	26.2	26.2	74	Dec 01		
GFE-FCR Kit	12	44	Nov 99	Nov 99	11.0	11.0	57	Nov 00	Dec 00	8.5	8.5				
<b>Total Advance Procurement</b>					35.4	35.4				34.7	34.7				

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	487.5	21.2	12.7	23.3	52.3							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	487.5	21.2	12.7	23.3	52.3							
Initial Spares												
Total Proc Cost	487.5	21.2	12.7	23.3	52.3							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

UH-60 BLACKHAWK modifications and associated equipment.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
UH-60 BLACK HAWK MODS (AA0492)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

0203744A/Project 504

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	478.4	21.2	12.7	23.3	52.3							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	478.4	21.2	12.7	23.3	52.3							
Initial Spares												
Total Proc Cost	478.4	21.2	12.7	23.3	52.3							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The UH-60 BLACKHAWK will serve as the Army's utility helicopter in the objective force. It is a twin engine, single rotor, four bladed utility helicopter used for air assault, air cavalry, troop & equipment transport, command & control, and medical evacuation (MEDEVAC) in active and reserve component theater, corps, division, and Table of Distribution and Allowances (TDA) units. The UH-60 is joint force capable, provides 24 hour/day support including operations at night and in adverse weather conditions. The UH-60 is designed to carry a crew of four plus eleven combat equipped troops or an external load up to 9,000 pounds. The UH-60A entered service in fiscal year 1978 (FY78), and the newer model UH-60L in FY89. The Army continues to procure UH-60L helicopters today. The oldest UH-60As are now over 23 years old, and the average age of the UH-60A fleet is 18 years.

**Justification:**

FY02/03 funding procures and installs the Crashworthy External Fuel System (CEFS), the Battery/Power Light Relocate (SLAB) modification, and UH-60Q MEDEVAC kits on the fielded UH-60 fleet. CEFS is a safety modification that reduces the risk of a fire if the helicopter crashes or is hit by enemy small caliber fire. The SLAB battery modification replaces the existing maintenance intensive nickel cadmium battery with a new low cost, low maintenance, longer life battery that meets EPA environmental restrictions. The UH-60Q MEDEVAC kit upgrades a fielded UH-60A/L to an air ambulance providing en-route patient treatment which is critical to patient survival. Starting in FY04, provides funding for the recapitalization/upgrade of the legacy UH-60 fleet. This program will be accomplished using an evolutionary, block approach to transform the system. The Block 1 program will selectively upgrade the UH-60A/L fleet to the UH-60M configuration. The upgrade includes airframe service life extension, structural improvements, upgrade of the propulsion system (UH-60A T700-GE-700 engine and drivetrain to the UH-60L T700-GE-701C engine and drivetrain), and a digital cockpit. These upgrades will meet lift, range, survivability, and interoperability requirements while decreasing O&S costs and extending the useful life of these aircraft another 20 years, or through the FY25 time frame. The UH-60M provides a common platform for the modernized air ambulance MEDEVAC Mission Equipment Package (MEP).

**Exhibit P-40C, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature

UH-60 BLACK HAWK MODS (AA0492)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

0203744A/Project 504

This program addresses current UH-60 fleet aging problems such as decreasing OR and increasing O&S costs, including all top-ten cost drivers, and provides a common, modernized platform for the UH-60 Utility and MEDEVAC fleet of the future. This effort supports the Legacy-to-Objective (LO) path of the Transformation Campaign Plan (TCP).

**Exhibit P-40M, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
UH-60 BLACK HAWK MODS (AA0492)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

0203744A/Project 504

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Crashworthy External Fuel System (CEFS)											
TBD	Safety	0.0	3.0	17.3	0.0	0.0	0.0	0.0	0.0	0.0	20.3
Search and Rescue (SAR) MODS											
TBD	Operational	9.9	14.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.4
Fire Hawk Kits											
TBD	Operational	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
UH-60M Selected Upgrade											
TBD	Selected Upgrade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UH-60M Medical Equipment Package (MEP)											
TBD	Operational/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Battery/Power Light Relocate (SLAB)											
1-94-01-1953	RAM	7.9	2.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	15.2
UH-60Q MEDEVAC Upgrade											
TBD	Operational	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
Advanced Transmission Lubricant											
TBD	RAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NVG Lighting Lower Console											
1-90-01-1933	Operational/Safety	10.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7
Totals		30.0	23.3	52.3	0.0	0.0	0.0	0.0	0.0	0.0	105.6

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Crashworthy External Fuel System (CEFS) [MOD 1] TBD

MODELS OF SYSTEM AFFECTED: UH-60A/L/Q

DESCRIPTION/JUSTIFICATION:

The Crashworthy External Fuel System (CEFS) is a safety improvement to the external fuel tanks currently used on the UH-60 which are subject to rupture in the event of a crash, posing a safety risk to the flight crew and passengers. The existing external fuel tanks were designed for self-deployment missions and do not meet current battlefield doctrine that requires these helicopters to fly long-range missions into hostile environments. CEFS is critical to the safety and survivability of UH-60 helicopters. The Army Aviation Safety Center assessed the risk associated with continued routine flight operations using the current non-crashworthy tanks as high. Until the CEFS is fielded, unit commanders are faced with accepting high risk to meet mission requirements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Development is complete.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs						1	4	8														
Outputs							1	4														

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2002 Jan 02

ADMINISTRATIVE LEADTIME:

3 Months

FY 2003 Jan 03

PRODUCTION LEADTIME:

7 Months

FY 2004 Jan 04

Delivery Date:

FY 2002 Aug 02

FY 2003 Aug 03

FY 2004 Aug 04

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Crashworthy External Fuel System (CEFS) [MOD 1] TBD

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity			13	3.0	78	17.2														20.2
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- 13 Kits					13	0.1														0.1
FY 2002 Equip -- 78 Kits																				
FY 2003 Equip -- 44 Kits																				
FY 2004 Equip -- 53 Kits																				
FY 2005 Equip -- 59 Kits																				
FY 2006 Equip -- 83 Kits																				
FY 2007 Equip -- 81 Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0	13	0.1		0.0		0.0		0.0		0.0		0.0		0.0		0.1
Total Procurement Cost		0.0		3.0		17.3		0.0		0.0		0.0		0.0		0.0		0.0		20.3

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Battery/Power Light Relocate (SLAB) [MOD 6] 1-94-01-1953

MODELS OF SYSTEM AFFECTED: UH-60A/L and EH-60A/L

DESCRIPTION/JUSTIFICATION:

Provides the fleet with a low cost, low maintenance, and longer life battery, which replaces the existing maintenance intensive Nickel Cadmium battery. The new battery will meet EPA environmental health hazard restrictions, is recyclable, reduces operating and support costs, and reduces the maintenance burden in the field.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Development is complete.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	150	75	75	75	75	175	200	200	200												
Outputs				50	325	75	175	200	200												

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					
Outputs																					

METHOD OF IMPLEMENTATION:	OLR Teams	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	5 Months
Contract Dates:	FY 2002 Jan 02	FY 2003		FY 2004	
Delivery Date:	FY 2002 Jun 02	FY 2003		FY 2004	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Battery/Power Light Relocate (SLAB) [MOD 6] 1-94-01-1953

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity	1125	7.2	100	0.7	228	1.5														9.4
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment																				
Support Equipment																				
Other																				
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- 1125 Kits	150	0.7	300	1.6	675	3.0														5.3
FY 2001 -- 100 Kits					100	0.5														0.5
FY 2002 Equip -- 228 Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>	150	0.7	300	1.6	775	3.5		0.0		0.0		0.0		0.0		0.0		0.0		5.8
<b>Total Procurement Cost</b>		7.9		2.3		5.0		0.0		0.0		0.0		0.0		0.0		0.0		15.2

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: UH-60Q MEDEVAC Upgrade [MOD 7] TBD

MODELS OF SYSTEM AFFECTED: UH-60A/L

DESCRIPTION/JUSTIFICATION:

Upgrades UH-60A/L helicopters to UH-60Q/HH-60L air ambulances by adding a Mission Equipment Package (MEP) that provides the capability for en-route patient treatment which is critical to patient survivability. New capabilities of the UH-60Q/HH-60L include a medical oxygen generation system (eliminating the need for compressed oxygen cylinders), suction, integrated power, storage for medical equipment, modern medical interior, external electric hoist, and enhanced communication capabilities. These critical life saving capabilities are not available with the UH-60A helicopters currently being used. The UH-60Q/HH-60L supports the U.S. Army Surgeon General's number 1 priority of "clearing the battlefield" and supports the Army's objective force enabling a smaller footprint on the battlefield with rapid casualty evacuation over extended distances. It also supports joint operations with "shore to ship" medical evacuation and is the only dedicated tactical medical air evacuation platform in DOD. The Army will modify UH-60 helicopters to this MEDEVAC configuration until the UH-60M Selected Upgrade Program outputs helicopters. MEDEVAC requirements will then be shown under the UH-60M MEP P-3a exhibit.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Development is complete.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs							4	4												
Outputs																				

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:

Contract Dates:

FY 2002 Mar 02

ADMINISTRATIVE LEADTIME:

5 Months

PRODUCTION LEADTIME:

9 Months

Delivery Date:

FY 2002 Dec 02

FY 2003

FY 2004

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): UH-60Q MEDEVAC Upgrade [MOD 7] TBD

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
--																				
Non-Recurring Procurement																				
Recurring Procurement					8	30.0														30.0
Other Flyaway																				
Training Devices																				
Other Support																				
--																				
--																				
--																				
--																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		0.0		0.0		30.0		0.0		0.0		0.0		0.0		0.0		0.0		30.0

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty	28	28	22	22	24							
Gross Cost	2880.6	49.3	41.9	41.5	42.6							
Less PY Adv Proc	223.3	0.0	0.0	0.0	0.0							
Plus CY Adv Proc	223.3	0.0	0.0	0.0	0.0							
Net Proc (P-1)	2880.6	49.3	41.9	41.5	42.6							
Initial Spares	181.3											
Total Proc Cost	3061.9	49.3	41.9	41.5	42.6							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The OH-58D Kiowa Warrior is a two-seat, single-engine, observation, scout/attack helicopter with four main-rotor blades. It utilizes a thermal-imaging system and laser rangefinder/designator in a mast-mounted sight situated above the main-rotor system. Weapons provide air-to-air (Stinger) and air-to-ground capability. 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. Kiowa Warriors also perform National Guard missions and have vital Horizontal Technology Insertion (HTI) roles, participating in Task Force XXI and in the Division Capstone Exercise (DCX). A Safety Enhancement Program (SEP) incorporates upgraded engines and filters, crashworthy crew seats, cockpit airbags, digitization, and improved weapons interface. The SEP improves recognition and identification of time-sensitive, combat, 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; protects engines from corrosion from sand/dust; and adds digitization capabilities. Partial SEP improvements had been incorporated into the later lots of Bell Helicopter's Kiowa Warrior 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. Crew Station Mission Equipment Trainers are being procured to support flight crew training. The OH-58D Kiowa Warrior system supports the Legacy transition path of the Transformation Campaign Plan (TCP).

**Justification:**

FY02/03 procures continuing modification efforts allowing the Kiowa Warrior to safely serve as the Army's night, armed-reconnaissance, aviation capability until Comanche fielding begins and to complement the Comanche aircraft until displaced in approximately 2015.

**Exhibit P-40M, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Crew Station Mission Equipment Trainer (CSMET)											
0-00-00-0002	Training	19.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.3
Safety Enhancement Program (SEP)											
0-00-00-0003	Safety	165.6	40.2	42.5	0.0	0.0	0.0	0.0	0.0	0.0	248.3
Totals		184.6	41.5	42.5	0.0	0.0	0.0	0.0	0.0	0.0	268.6

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Safety Enhancement Program (SEP) [MOD 2] 0-00-00-0003

MODELS OF SYSTEM AFFECTED: OH-58D Kiowa Warrior

DESCRIPTION/JUSTIFICATION:

The Safety Enhancement Program (SEP) resolves safety issues and enables Kiowa Warrior performance as a digitized platform interfacing with the tactical internet. R3 Engines increase reliability, control responsiveness, and overcome a rotor droop anomaly by providing faster response time to power demands. Engine barrier filters improve engine reliability by reducing damage from sand/dust ingestion and by increasing engine meantime between overhaul. The Improved Master Controller Processor Unit (IMCPU) increases memory and throughput and reduces both aircraft empty weight and operating and support (O&S) costs. A Joint Variable Message Format (JVMF) capability is added to support fielding to First Digitized Division/Corps. Energy attenuating seats provide crew safety in case of vertical and horizontal impacts. Cockpit airbags increase crew protection in all modes of flight. Of the fleet of 382 Kiowa Warriors, 304 (including nine Category B trainers) will receive SEP modifications; 227 will be accomplished on the contractor's modification line and 77 additional aircraft had been partially equipped in prior remanufacture/retrofit lines. Three of those 77 have been lost to attrition. Equipment not installed at the contractor's facility will be applied via field retrofit. In order to complete the SEP, aircraft will be modified at the contractor's facility and some will have seats, airbags, and engine barrier filters installed in the field. A total of 382 aircraft will be equipped with engine barrier filters, seats, and airbags.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Note: Installation Schedule data not provided below. Majority of aircraft will be block-modified at the Bell Helicopter Textron, Inc. facility via an annual contract to modify aircraft to be delivered over a 12-month period. 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. Hardware installation dollars on page 2 of this form represent a compilation of the variety of field retrofit modifications. The block-modification installations on the contractor's modification line are not separately priced and therefore the dollars are embedded in the Recurring line for each year.

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs																				
Outputs																				

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:	Kr line & fld retrofit	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002 Jan 02	FY 2003 Jan 03		FY 2004 Jan 04	
Delivery Date:	FY 2002 Jan 03	FY 2003 Jan 04		FY 2004 Jan 05	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Safety Enhancement Program (SEP) [MOD 2] 0-00-00-0003

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Aircraft Modified - Bell Helicopter	78		22		24															
Nonrecurring		15.0		2.9		2.7														20.6
Recurring - Bell Helicopter		39.1		11.6		13.2														63.9
Government-Furnished Equipment		100.1		21.0		17.8														138.9
Engineering Change Orders		0.4		0.5		0.4														1.3
Aircraft Preparation		6.4		2.5		2.7														11.6
Fielding		0.7		0.5		0.9														2.1
Training/Training Devices						2.6														2.6
Other		2.6		0.6		1.1														4.3
Technical Support		1.1		0.6		0.9														2.6
<b>Installation of Hardware - Field</b>																				
FY 2000 & Prior Equip -- Kits		0.2																		0.2
FY 2001 -- Kits																				
FY 2002 Equip -- Kits						0.2														0.2
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>		0.2		0.0		0.2		0.0		0.0		0.0		0.0		0.0		0.0		0.4
<b>Total Procurement Cost</b>		165.6		40.2		42.5		0.0		0.0		0.0		0.0		0.0		0.0		248.3

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
AIRBORNE AVIONICS (AA0700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604201A

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	261.1	56.3	43.8	61.0	78.4							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	261.1	56.3	43.8	61.0	78.4							
Initial Spares	48.7	4.1	1.8	2.0	4.0							
Total Proc Cost	309.8	60.4	45.6	63.0	82.4							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The Airborne Avionics budget line includes the Global Positioning System (GPS), the Improved Data Modem (IDM), the Advanced Avionics Technology Insertion (AATI), and the Aviation Mission Planning System (AMPS). The GPS, IDM, AATI and AMPS are four of the aviation systems required to support the digitization of the battlefield. All of these systems support the Legacy-to-Objective transition path of the Transformation Campaign Plan.

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) and Anti-Jam (AJ) device. 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) and Fire Support (FS) Internet. This hardware/software solution allows Army Aviation interoperability with other weapon and ground systems. 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, UH-60Q/M, Aviation Tactical Operations Center (AVTOC), and Tactical Airspace Integration Systems (TAIS).

**Exhibit P-40C, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature

AIRBORNE AVIONICS (AA0700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604201A

The AATI is an integrated, multi-function avionics device that encapsulates real-time information exchange and information processing capabilities in a common chassis. AATI will provide the Aviation fleet (AH-64D, OH-58D, UH-60M, and CH-47F) with a cost effective, automated, flexible, electronic system which gives the user access to any required/directed information exchange and processing in support of battlespace command and control, navigation, identification, airspace traffic control, mission management, and aviation specific requirements.

AMPS is a mission planning/battle-synchronization tool that automates aviation mission planning tasks that include tactical command and control, mission planning, and flight planning. 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. This system generates mission data in either hard copy or electronic formats which is loaded onto the aircraft platforms, initializing the communication, navigation, and situational awareness systems on the modernized fleet aircraft. AMPS provides critical Command and Control (C2) connectivity for Army Aviation. Without AMPS, there is no automated extraction of critical C2 information from 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/M/Q Blackhawk.

**Justification:**

FY02-03 funding for GPS P3I provides for the procurement of modification kits for field retrofit on the AH-64A, AH-64D, and Special Operation Aircraft (SOA).

FY02-03 funding also provides for the procurement of 428 IDM-304 boxes and the retrofitting of 67 IDM-303 boxes to IDM-304 boxes for AH-64D, OH-58D, CH-47F, SOA,TAIS, AVTOC, and UH-60Q/M fielding requirements. The IDM improves Army Aviation's interoperability, lethality, and operational tempo through the exchange of fast and accurate data-burst communications, via the TI and FS Internet; providing a seamless capability to communicate across the digital battlefield.

FY02-03 funding for AMPS will provide for replacement of system hardware which is currently at end-of-life, as well as for upgrading the system software to support aviation fleet modernization programs and migration to the Joint Mission Planning System (JMPS).

**Exhibit P-40M, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
AIRBORNE AVIONICS (AA0700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

PE 0604201A

Description		Fiscal Years									
OSIP NO.	Classification	2000 & PR	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TC	Total
Doppler GPS Navigation System (DGNS) (AN/ASN-128B)											
	Legislative	91.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.6
Improved Data Modem (IDM)											
	Oper/Log	80.6	32.2	42.9	0.0	0.0	0.0	0.0	0.0	0.0	155.7
Advanced Avionics Technology Insertion (AATI)											
	Oper/Log	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Mission Planning System (AMPS)											
1-95-01-2185	Oper/Log	48.7	9.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	64.8
Embedded GPS Inertial Navigation System (EGI) P3I											
	Legislative	4.2	16.3	20.5	0.0	0.0	0.0	0.0	0.0	0.0	41.0
DGNS (AN/ASN-128B) P3I											
	Legislative	0.0	2.7	7.9	0.0	0.0	0.0	0.0	0.0	0.0	10.6
<b>Totals</b>		<b>225.3</b>	<b>61.0</b>	<b>78.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>364.7</b>

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Improved Data Modem (IDM) [MOD 2]

MODELS OF SYSTEM AFFECTED: IDM MD-1295/A; Aircraft: Longbow, Kiowa Warrior, Special Operations Aircraft, Chinook, Blackhawk

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 (C2), situational awareness (SA) through digital mapping of friendly and enemy positions, and modernized operations in joint service digitized environments. The IDM enhancement to incorporate Embedded Battle Command (EBC) minimizes changes to platform architecture, capitalizes on software reuse, and reduces platform software lifecycle costs. IDMs for AH-64D, CH-47F, UH-60Q/M, and TAIS will be incorporated in production. IDMs for fielded OH-58D aircraft will be installed by the Scout/Attack PM during implementation of the Safety Enhancement Program (SEP) at the contractor's facility. Approximately 529 OH58-Ds and AH-64Ds will require retrofit in the fields. Special Operations Aircraft (SOA) logistics contractors will install the IDMs at the contractor's facility for SOA platforms.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Total Ownership Cost Reduction(TOCR) Initiative-Planned Jul 00 thru Feb 02  
 Division Capstone Exercise(Limited C2)-Planned Apr 01  
 Limited Production Contract-Planned Feb 02  
 Full Rate Production Contract-Planned Feb 03  
 Second Digitized Division-Planned FY03  
 First Digitized Corps-Planned FY04

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs																				
Outputs																				

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:	Contractor Teams	ADMINISTRATIVE LEADTIME:	4 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002 Feb 02	FY 2003 Feb 03		FY 2004 Feb 04	
Delivery Date:	FY 2002 Feb 03	FY 2003 Feb 04		FY 2004 Feb 05	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Improved Data Modem (IDM) [MOD 2]

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity - B Kit	260	8.9			136	4.8														13.7
Mods - B Kit	120	1.8																		1.8
Installation Kits, Nonrecurring		4.1																		4.1
Aircraft Integration		27.8		18.4		29.3														75.5
H/W S/W, Nonrecurring		21.5		12.4		3.0														36.9
Engineering Change Orders		3.9																		3.9
Data		0.8																		0.8
System Test and Evaluation		0.4																		0.4
Support Equipment		0.4				0.1														0.5
Other - PM Adm & Matrix Spt		10.3		1.4		4.9														16.6
Training Equipment						0.2														0.2
Fielding		0.7				0.6														1.3
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
Total Procurement Cost		80.6		32.2		42.9		0.0		0.0		0.0		0.0		0.0		0.0		155.7

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Aviation Mission Planning System (AMPS) [MOD 4] 1-95-01-2185

MODELS OF SYSTEM AFFECTED: Apache (AH-64A Modernization/AH-64D), Blackhawk (UH-60A/L/Q), Chinook, Cobra, Comanche, Huey

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 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. This system generates mission data in either hard copy or electronic formats which is loaded on the aircraft platforms, initializing the communication, navigation, and situational awareness systems on 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:

IOTE - Mar/Apr 01

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					
Outputs																					

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002

Delivery Date: FY 2002

ADMINISTRATIVE LEADTIME:

FY 2003

FY 2003

0 Months

PRODUCTION LEADTIME:

FY 2004

FY 2004

0 Months

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Aviation Mission Planning System (AMPS) [MOD 4] 1-95-01-2185

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity	705	19.7																		19.7
Installation Kits																				
Installation Kits, Nonrecurring																				
Equipment		7.7		1.1																8.8
Equipment, Nonrecurring																				
Engineering Change Orders		17.1		6.7		5.9														29.7
Data																				
Training Equipment				0.2		0.2														0.4
Support Equipment																				
Other - PM Adm & Matrix Spt		3.4		0.5		0.4														4.3
Fielding		0.8		0.5		0.6														1.9
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
<b>Total Procurement Cost</b>		48.7		9.0		7.1		0.0		0.0		0.0		0.0		0.0		0.0		64.8

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Embedded GPS Inertial Navigation System (EGI) P3I [MOD 5]

MODELS OF SYSTEM 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. FY01 starts the aircraft integration of the GPS EGI Pre-Planned Product Improvement (P3I) interchangeable module, GPS Receiver Applications Module Selective Availability Anti-Spoofing Module (GRAM-SAASM), and AJ devices, in accordance with NAVWAR and civil airspace regulatory requirements. In FY01 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 modification kits will start in FY02 for field retrofit on the AH-64A, AH-64D and SOF in FY03. The remaining EGI equipped aircraft, Kiowa Warrior (OH-58D), will start field retrofit in FY05. Because 157 Longbow modified EGIs will be procured while Longbow is still in production, the modified EGIs exclude installation kits and installation cost.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Planned Contract Award - Aircraft Integration (Nonrecurring) - Jun 01  
 Planned Production Contract Award - Jun 02

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:	Contractor Teams	ADMINISTRATIVE LEADTIME:	9 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002 Jun 02	FY 2003 Mar 03		FY 2004 Mar 04	
Delivery Date:	FY 2002 Jun 03	FY 2003 Mar 04		FY 2004 Mar 05	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Embedded GPS Inertial Navigation System (EGI) P3I [MOD 5]

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	<b>RDT&amp;E</b>																			
<b>Procurement</b>																				
Kit Quantity - B Kit					76	3.6														3.6
Installation Kits - A Kit					64	0.2														0.2
Installation Kits, Nonrecurring Equipment			12.0			14.3														26.3
Equipment, Nonrecurring			2.1			1.1														3.2
Engineering Change Orders	4.0		1.5			0.2														5.7
Data						0.1														0.1
Training Equipment																				
Support Equipment																				
Other - PM Adm & Matrix Spt	0.2		0.7			1.0														1.9
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
<b>Total Procurement Cost</b>		4.2		16.3		20.5		0.0		0.0		0.0		0.0		0.0		0.0		41.0

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: DGNS (AN/ASN-128B) P3I [MOD 6]

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

DESCRIPTION/JUSTIFICATION:

GPS (DGNS) is one of the aviation systems required for Digitization of the Battlefield. FY02 starts the Pre-Planned Product Improvement (P3I) for the ASN-128B/DGNS nonrecurring box 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) and Anti-Jam (AJ) device. The AN/ASN-128B/DGNS P3I will provide for open, upgradable architecture and meet the requirements of NAVWAR and civil airspace regulations for the UH-60A/L and CH-47D aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

- Planned Contract Award - Box (Nonrecurring)- Jun 01
- Planned Contract Award - Aircraft Integration (Nonrecurring) - Nov 01
- Planned Production Contract Award - Mar 03

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

  

Pr Yr	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:	Contractor Team	ADMINISTRATIVE LEADTIME:	6 Months	PRODUCTION LEADTIME:	12 Months
Contract Dates:	FY 2002	FY 2003	Mar 03	FY 2004	Mar 04
Delivery Date:	FY 2002	FY 2003	Mar 04	FY 2004	Mar 05

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): DGNS (AN/ASN-128B) P3I [MOD 6]

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity - B Kit																				
Installation Kits - A Kit																				
Installation Kits, Nonrecurring Equipment							7.1													7.1
Equipment, Nonrecurring				2.6		0.4														3.0
Engineering Change Orders Data																				
Training Equipment																				
Support Equipment																				
Other - PM Adm & Matrix Spt				0.1		0.4														0.5
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits																				
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
<b>Total Installment</b>		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
<b>Total Procurement Cost</b>		0.0		2.7		7.9		0.0		0.0		0.0		0.0		0.0		0.0		10.6

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
ASE MODS (SIRFC) (AA0720)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSN AZ3508; PE/Project 0604270A/665

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	177.9	5.2	8.8	4.4								
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	177.9	5.2	8.8	4.4								
Initial Spares												
Total Proc Cost	177.9	5.2	8.8	4.4								
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

AA0720 is a summary for the AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC), Aircraft Survivability Equipment Trainer IV (ASET IV), and the Advanced Threat Infrared Countermeasures (ATIRCM). ASE modifications provide funding for Aircraft Survivability Equipment (ASE) upgrades by incorporation of the latest state-of-the-art technology needed to meet current and emerging threats to Army Aviation platforms. 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 achieves RF threat defeating capabilities. This budget item rolls up four modification efforts that test, procure, and install A-Kits on Army airframes and modifications to ASET IV. These systems support the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

**Justification:**

FY01 funding is required for the AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC) nonrecurring engineering integration program 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.

**Notes:**

FY02-07 funding was realigned into AZ3508, ASE Radar Countermeasures.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost			4.9									
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)			4.9									
Initial Spares												
Total Proc Cost			4.9									
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The Advanced Threat Infrared Countermeasures/Common Missile Warning System (ATIRCM/CMWS) is a U.S. Army 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. The system consists of Common Missile Warning System (CMWS), Advanced Threat Infrared Jammer, Advanced Threat Infrared Countermeasure Munitions (AIRCMM), and Electronic Control Unit (ECU). It is designed 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 integrates common missile warning on tactical aircraft and rotorcraft for IR guided missile threat warning. Integration on Navy platforms is scheduled beyond the POM. 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. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

**Justification:**

Beginning in FY 2002 funding for this effort was transferred to the ASE Infrared CM Program(AZ3507)during a program restructure.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
GATM (AA0701)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSN AA0711, SSN AA0704

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost			9.9	10.0								
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)			9.9	10.0								
Initial Spares												
Total Proc Cost			9.9	10.0								
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Global Air Traffic Management (GATM) 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 significant flight restrictions if not GATM equipped. GATM requirements cannot be met with a single piece of equipment. Meeting worldwide GATM requirements will entail the upgrading of some existing avionics and the procurement of new systems for both rotary and fixed wing fleets. GATM supports the Legacy-to-Objective transition path to the Transformation Campaign Plan.

**Justification:**

Beginning in FY 2002, program transferred to AA0711.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
GATM ROLLUP (AA0711)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSN AA0701, SSN AA0704

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost					54.6							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)					54.6							
Initial Spares												
Total Proc Cost					54.6							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Global Air Traffic Management (GATM) 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 significant flight restrictions if not GATM equipped. GATM requirements cannot be met with a single piece of equipment. Meeting worldwide GATM requirements will entail the upgrading of some existing avionics and the procurement of new systems for both rotary and fixed wing fleets. GATM supports the Legacy-to-Objective transition plath of the Transformation Campaign Plan.

**Justification:**

FY02/03 GATM Rotary Wing funding will procure avionics that will allow Rotary Wing aircraft to meet near-term GATM requirements. Europe mandates a Mode-S transponder for Instrument Flight Rules (IFR) flight after Mar 03 and for Visual Flight Rules (VFR) flight after Mar 05. Army aircraft will not be allowed to transit through or operate in European airspace affected by these mandates. The Mode-S transponder impacts over 300 European based aircraft as well as those deploying to Europe. Rotary Wing Mode-S transponder non-recurring aircraft integration continues in FY02 for the MH-60 and MH-47. The recurring procurement of Mode-S kits starts in FY02 and procurement and installations continue beyond the POM.

FY02/03 GATM Fixed Wing funding will procure GATM equipment for C-20, C-12, C-23, and RC-12 aircraft. Fixed Wing aircraft were purchased with current avionics and navigation equipment at the time of production. However, for the Army's Fixed Wing aircraft to remain current and have unrestricted access to the rapidly changing Air Traffic Management airspace, new communication, navigation and surveillance equipment will be needed to support GATM. Unless equipped, the Army's senior leadership will be limited in conducting their worldwide command and control missions because of potential airspace exclusion or routing delays.

**Exhibit P-40C, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature

GATM ROLLUP (AA0711)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSN AA0701, SSN AA0704

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. In addition, 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-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
GATM - FIXED WING AIRCRAFT (AA0703)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost					25.9							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)					25.9							
Initial Spares												
Total Proc Cost					25.9							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Global Air Traffic Management (GATM) 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 some level (altitude and location dependent) of flight restrictions if not GATM equipped. GATM requirements cannot be met with a single piece of equipment. Meeting worldwide GATM requirements will entail the upgrading of some existing avionics and the procurement of new systems for the fixed wing fleet. This SSN supports Legacy and Legacy-to-Objective Systems which relate to the Transformation Campaign Plan.

**Justification:**

FY02 and FY03 funding will procure GATM equipment for C-20, C-12, C-23, and RC-12 Fixed Wing aircraft. Fixed Wing aircraft were purchased with current avionics and navigation equipment at the time of production. However, for the Army's Fixed Wing aircraft to remain current and have unrestricted access to the rapidly changing Air Traffic Management airspace, new communication, navigation and surveillance equipment will be needed to support GATM. Unless equipped, the Army's senior leadership will be limited in conducting their worldwide command and control missions because of potential airspace exclusion or routing delays. In addition, elimination of obsolete communication and navigation systems will enhance reliability and maintainability by employing commercial systems thereby improving aircraft availability for mission requirements.



**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Global Air Traffic Management - FW [MOD 1] GATM-FW

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

DESCRIPTION/JUSTIFICATION:

This effort will update and modernize communication, navigation, and surveillance equipment to current international requirements, allow worldwide deployments and continued safe operations into the 21st Century.

As currently equipped, the aircraft are not suitable for worldwide deployment nor capable of using modern navigation and air traffic control capabilities. 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, 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 configuration vary based on the aircraft that they will be installed on. Consequently, kit unit and installation cost will vary significantly from year to year.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Development is not required for avionics system cockpit upgrades

Installation Schedule:

Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005					
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs						16	16	18														
Outputs							16	16														

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:

Contract Dates: FY 2002 Dec 01  
 Delivery Date: FY 2002 Mar 02

ADMINISTRATIVE LEADTIME: 3 Months  
 FY 2003 Dec 02  
 FY 2003 Mar 03

PRODUCTION LEADTIME: 3 Months  
 FY 2004 Dec 03  
 FY 2004 Mar 04

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Global Air Traffic Management - FW [MOD 1] GATM-FW

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
<b>RDT&amp;E</b>																					
<b>Procurement</b>																					
Kit Quantity																					
Installation Kits					50	20.1															20.1
Installation Kits, Nonrecurring																					
Equipment																					
Equipment, Nonrecurring																					
Engineering Change Orders																					
Data						0.1															0.1
Training Equipment																					
Support Equipment																					
Other																					
Interim Contractor Support																					
<b>Installation of Hardware</b>																					
FY 2000 & Prior Equip -- Kits																					
FY 2001 -- Kits																					
FY 2002 Equip -- Kits					50	5.8															5.8
FY 2003 Equip -- Kits																					
FY 2004 Equip -- Kits																					
FY 2005 Equip -- Kits																					
FY 2006 Equip -- Kits																					
FY 2007 Equip -- Kits																					
TC Equip- Kits																					
<b>Total Installment</b>		0.0		0.0	50	5.8		0.0		0.0		0.0		0.0		0.0		0.0		0.0	5.8
<b>Total Procurement Cost</b>		0.0		0.0		26.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	26.0

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /2/MODIFICATION OF AIRCRAFT

P-1 Item Nomenclature  
GATM - ROTARY WING AIRCRAFT (AA0704)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSN AA0701, SSN AA0711

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost					28.6							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)					28.6							
Initial Spares												
Total Proc Cost					28.6							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Global Air Traffic Management (GATM) 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 significant flight restrictions if not GATM equipped. GATM requirements cannot be met with a single piece of equipment. Meeting worldwide GATM requirements will entail the upgrading of some existing avionics and the procurement of new systems for rotary wing fleets. GATM supports the Legacy-to-Objective transition path of the Transformation Campaign Plan.

**Justification:**

In FY02/03 funding will procure avionics that will allow Rotary Wing aircraft to meet near-term GATM requirements. Europe mandates a Mode-S transponder for Instrument Flight Rules (IFR) flight after Mar 03 and for Visual Flight Rules (VFR) flight after Mar 05. Army aircraft will not be allowed to transit through or operate in European airspace affected by these mandates. The Mode-S transponder impacts over 300 European based aircraft as well as those deploying to Europe. Rotary Wing Mode-S transponder non-recurring aircraft integration continues in FY02 for the MH-60 and MH-47. The recurring procurement of Mode-S kits starts in FY02 and procurement and installations continue beyond the POM.



**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE: Global Air Traffic Management - RW [MOD 1] GATM-RW

MODELS OF SYSTEM AFFECTED: CH-47D, UH-60A/L, EH-60, MH-47D/E, MH-60L/K, A/MH-6, TH-67, AH-64/A/D

DESCRIPTION/JUSTIFICATION:

High priority requirements funding will address communications and surveillance equipment necessary for airspace access for rotary wing aircraft operations (peacetime and wartime missions) in Europe. The Mode-S transponders will be required for all IFR flights in Europe after 31 Mar 03. FY02/03 funding will complete the nonrecurring aircraft integration for the AH-64A/D, OH-58D, and SOF aircraft. Funding will also procure and install Mode-S transponders for all aircraft. The European based aircraft will be Mode-S equipped by FY05.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Planned Production Award (Mode S) - Dec 01  
 Planned Integration Award (Mode-S) - Mar 02

Installation Schedule:

	Pr Yr	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Totals																						
Inputs							51	51														
Outputs								64														

  

	FY 2006				FY 2007				FY 2008				FY 2009				To Complete	Totals				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
Inputs																						
Outputs																						

METHOD OF IMPLEMENTATION:	OLR Team	ADMINISTRATIVE LEADTIME:	3 Months	PRODUCTION LEADTIME:	6 Months
Contract Dates:	FY 2002 Dec 01	FY 2003 Dec 02		FY 2004 Dec 03	
Delivery Date:	FY 2002 Jun 02	FY 2003 Jun 03		FY 2004 Jun 04	

**INDIVIDUAL MODIFICATION**

Date: June 2001

MODIFICATION TITLE (Cont): Global Air Traffic Management - RW [MOD 1] GATM-RW

FINANCIAL PLAN: (\$ in Millions)

	FY 2000 and Prior		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		TC		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
<b>RDT&amp;E</b>																				
<b>Procurement</b>																				
Kit Quantity					204	5.6														5.6
Installation Kits					204	2.2														2.2
Installation Kits, Nonrecurring						18.1														18.1
Equipment																				
Equipment, Nonrecurring																				
Engineering Change Orders																				
Data																				
Training Equipment						0.2														0.2
Support Equipment																				
Other - PM Admin & Matrix Spt						1.4														1.4
Interim Contractor Support																				
<b>Installation of Hardware</b>																				
FY 2000 & Prior Equip -- Kits																				
FY 2001 -- Kits																				
FY 2002 Equip -- Kits					102	1.1														1.1
FY 2003 Equip -- Kits																				
FY 2004 Equip -- Kits																				
FY 2005 Equip -- Kits																				
FY 2006 Equip -- Kits																				
FY 2007 Equip -- Kits																				
TC Equip- Kits																				
Total Installment		0.0		0.0	102	1.1		0.0		0.0		0.0		0.0		0.0		0.0		1.1
Total Procurement Cost		0.0		0.0		28.6		0.0		0.0		0.0		0.0		0.0		0.0		28.6

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /3/SPARES AND REPAIR PARTS

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	6764.1	27.4	14.3	15.0	5.3							
Less PY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Plus CY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Net Proc (P-1)	6764.1	27.4	14.3	15.0	5.3							
Initial Spares												
Total Proc Cost	6764.1	27.4	14.3	15.0	5.3							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Provides for the 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.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /4/SUPPORT EQUIPMENT AND FACILITIES

P-1 Item Nomenclature  
AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

SSN AA0720; PE/Project 0604270A/665

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty					2							
Gross Cost	874.1	10.4	15.3	9.9	32.8							
Less PY Adv Proc	11.6											
Plus CY Adv Proc	11.6											
Net Proc (P-1)	874.1	10.4	15.3	9.9	32.8							
Initial Spares	51.9	0.6										
Total Proc Cost	926.0	11.0	15.3	9.9	32.8							
Flyaway U/C												
Wpn Sys Proc U/C					3.0							

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

AZ3504 is a summary rollup of SSN AZ3506, which includes the Aircraft Survivability Equipment Trainer IV (ASET IV), and SSN AZ3508, which includes the AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC) and the AN/AVR-2A, Laser Detecting Set.

The ASET IV is a ground based, mobile aviation threat emitter simulation and training system, which enables aircrews of Army Aviation Platforms a full capability 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 SIRFC consists of the Advanced Threat Warning Receiver and the Advanced Threat Radar Jammer. The SIRFC will replace the current Aircraft Survivability Equipment (ASE) AN/APR-39, AN/APR-44, 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, and SIRFC has application to other Air Force and Navy aircraft. The AN/AVR-2A is a passive threat laser warning system that alerts the aircrew that they are being targeted by threat forces allowing the aircrew to engage the target or maneuvers to break the targeting. These systems support the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

**Justification:**

FY02/03 procures SIRFC Low Rate Initial Production A&B Kits. The SIRFC system is required to enhance the survivability of Army Aviation aircraft against the newer, more capable threat air defense systems employing the latest and proliferated improvements in millimeter wave, pulse Doppler, and multi-spectrum radar. This system is essential to enable our modernized aircraft to provide dominance across the full spectrum of operations. The current requirement is for SIRFC systems to equip all Army aircraft (3156 SIRFC systems). FY03 unit costs and quantities reflect hardware variations due to platform unique requirements (i.e., number of line replaceable units per platform.)

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
ASE Warning Receivers		12253			3972								
ASE Radar CM		3027			5936			32780	2	3000			
<b>Total</b>		<b>15280</b>			<b>9908</b>			<b>32780</b>					

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /4/SUPPORT EQUIPMENT AND FACILITIES

P-1 Item Nomenclature  
ASE RADAR CM (AZ3508)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty					2							
Gross Cost	94.3	3.0	3.0	5.9	32.8							
Less PY Adv Proc	11.6											
Plus CY Adv Proc	11.6											
Net Proc (P-1)	94.3	3.0	3.0	5.9	32.8							
Initial Spares												
Total Proc Cost	94.3	3.0	3.0	5.9	32.8							
Flyaway U/C												
Wpn Sys Proc U/C					3.0							

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Aircraft Survivability Equipment Radar Countermeasure, LIN AZ3508, is a summary rollup for the AN/ALQ-211, Suite of Integrated Radio Frequency Countermeasures (SIRFC) and the Laser Detecting Set, AN/AVR-2A. The SIRFC consists of the Advanced Threat Warning Receiver and the Advanced Threat Radar Jammer. The SIRFC will replace the current Aircraft Survivability Equipment (ASE) AN/APR-39, AN/APR-44, 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, and SIRFC has application to other Air Force and Navy aircraft. The AN/AVR-2A is a passive threat laser warning system that alerts the aircrew that they are being targeted by threat forces allowing the aircrew to engage the target or maneuvers to break the targeting. These systems support the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

**Justification:**

FY02/03 procures SIRFC Low Rate Initial Production A&B Kits. The SIRFC system is required to enhance the survivability of Army Aviation aircraft against the newer, more capable threat air defense systems employing the latest and proliferated improvements in millimeter wave, pulse Doppler, and multi-spectrum radar. This system is essential to enable our modernized aircraft to provide dominance across the full spectrum of operations. The current requirement is for SIRFC systems to equip all Army aircraft (3156 SIRFC systems). FY03 unit costs and quantities reflect hardware variations due to platform unique requirements (i.e., number of line replaceable units per platform.)

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: ASE RADAR CM (AZ3508)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>AZ3508 - ASE RADAR COUNTERMEASURES Suite of Integrated Radio Freq CMS (SIRFC)</b>													
Nonrecurring Engineering								1705					
Facilitization/ECPs/Obsolescence								9193					
Platform Integration		61						11637					
Project Management		25						2145					
SIRFC Recurring Hardware (A Kit/B Kit)								6000	2	3000			
Contractor Logistics Support								2100					
<b>SUBTOTAL - SIRFC</b>		<b>86</b>						<b>32780</b>					
<b>AN/AVR-2A Laser Warning</b>													
System Acquisition and Fielding		2794			5636								
Project Management		147			300								
<b>SUBTOTAL - AN/AVR-2A</b>		<b>2941</b>			<b>5936</b>								
<b>Total</b>		<b>3027</b>			<b>5936</b>			<b>32780</b>					

# Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

P-1 Line Item Nomenclature:  
ASE RADAR CM (AZ3508)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>SIRFC Recurring Hardware (A Kit/B Kit)</b>										
FY 2002	ITT Corporation (B Kit) Clifton, NJ	C/FFP	CECOM, Ft. Monmouth, NJ	Feb 02	Feb 04	2	2600	Yes		
FY 2002	Boeing (A Kit) Mesa, AZ	C/FFP	AMCOM, Redstone Arsenal, AL	Jan 02	Jan 03	1	400	Yes		
FY 2002	TBD (A Kit) TBD	C/FFP	TBD	Jan 02	Jan 03	1	400	No		

REMARKS:

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /4/SUPPORT EQUIPMENT AND FACILITIES

P-1 Item Nomenclature

ASE INFRARED CM (AZ3507)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty					12							
Gross Cost	22.7				36.7							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	22.7				36.7							
Initial Spares												
Total Proc Cost	22.7				36.7							
Flyaway U/C												
Wpn Sys Proc U/C					3.1							

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The Advanced Threat Infrared Countermeasures/Common Missile Warning System (ATIRCM/CMWS) is a U.S. Army 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. The Suite of Integrated IR Countermeasures (SIIRCM) system consists of Common Missile Warning System (CMWS), Advanced Threat Infrared Jammer, 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 integrates common missile warning on tactical aircraft and rotorcraft for IR guided missile threat warning. Effective November 28, 2000, the Air Force officially withdrew from the production program. Integration on Navy platforms is scheduled beyond the POM. The ATIRCM/CMWS is the core systems of the U.S. Army's modular SIIRCM. The total objective for the ATIRCM/CMWS in support of Army aircraft is 1047. This system supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP). Related program funding: PE 64270 L20 (ATIRCM Development) and AA0722 (ATIRCM Mods).

**Justification:**

FY02/03 procures a total of 25 each ATIRCM/CMWS in support of the MH-60. The Army has the responsibility of providing active, directional countermeasures jamming and advanced dispensing capability utilizing AIRCMM 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.

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: ASE INFRARED CM (AZ3507)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Recurring Hardware	B							16180	12	1348			
Nonrecurring Engineering								5580					
System Engineering/Program Mgmt (SEPM)								3799					
Training													
Engineering Changes								72					
In-house/Matrix Support								6334					
Project Management								333					
System Support								4355					
<b>Total</b>								<b>36653</b>					

## Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

P-1 Line Item Nomenclature:  
ASE INFRARED CM (AZ3507)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Recurring Hardware</b> FY 2002	BAE Systems (Sanders) Nashua, NH	SS/FPIF	CECOM, Ft. Monmouth, NJ	Jan 02	Jul 03	12	1348	Yes		

REMARKS:





# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	507.8	2.5	8.9	9.9	7.5							
Less PY Adv Proc	5.0											
Plus CY Adv Proc	5.0											
Net Proc (P-1)	507.8	2.5	8.9	9.9	7.5							
Initial Spares	22.7											
Total Proc Cost	530.5	2.5	8.9	9.9	7.5							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Consists of a family of avionics support equipment. Current program consists of the Aviators' Night Vision Imaging System (ANVIS) and the Heads Up Display (HUD). This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /4/SUPPORT EQUIPMENT AND FACILITIES

P-1 Item Nomenclature

ANVIS/HUD (K35601)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	396.2	2.5	8.9	9.9	7.5							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	396.2	2.5	8.9	9.9	7.5							
Initial Spares	22.0											
Total Proc Cost	418.2	2.5	8.9	9.9	7.5							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

AN/AVS-6, Aviators' Night Vision Imaging System (ANVIS) is a binocular, helmet-mounted system for Aviation crew members. Substantial improvements have been made in image intensification (I2) technology since the original version of ANVIS was procured from 1985-1992. The AN/AVS-6(V)3 is an enhanced night vision goggle that combines state-of-the-art unfilmed I2 technology with a light-sensitive gated power supply in such a way that the useable dynamic range is significantly expanded to support operations in ambient conditions that vary from "overcast starlight" to strong urban lighting situations. The increased capability yields enhanced mission performance and improved safety of flight over what is now possible using currently-fielded AN/AVS-6 systems.

AN/AVS-7, Heads-Up Display (HUD) is a system, which works in conjunction with the Aviator's Night Vision Imaging System (ANVIS). The 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.), and a kit containing a Signal Data Converter, Converter Control Unit, and two Display Units per aircraft. The entire system weight ranges from 32 to 40 pounds per aircraft. The display unit head weight is approximately 1/4 pound. The HUD is being installed on the CH-47D and UH-60 helicopters and supports the legacy and interim force.

These systems support the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

**Justification:**

Systems procured in FY 2002 and FY 2003 will be used to field upgraded ANVISs to "first to fight units".

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: ANVIS/HUD (K35601)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
K35601 ANVIS/HUD													
ANVIS		7258	963	8	7521	963	8	5585	704	8			
Engineering Support		563			1235			1321					
Project Management Admin		188			412			440					
Engineering Change Orders		373											
Testing		112			740								
Fielding		356						198					
<b>Gross P-1 End Cost</b>		<b>8850</b>			<b>9908</b>			<b>7544</b>					
Less: Prior Year Adv Proc													
<b>Net P-1 Full Funding Cost</b>		<b>8850</b>			<b>9908</b>			<b>7544</b>					
<b>Total</b>		<b>8850</b>			<b>9908</b>			<b>7544</b>					

## Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

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

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>K35601 ANVIS/HUD</b>										
FY 2000	LITTON TEMPE, AZ	OPTION	CECOM	Jan 00	Jul 02	578	8	Yes		
FY 2000	ITT ROANOKE, VA	OPTION	CECOM	Jan 00	Jul 02	385	8	Yes		
FY 2001	LITTON TEMPE, AZ	OPTION	CECOM	Jun 01	Feb 03	578	8	Yes		
FY 2001	ITT ROANOKE, VA	OPTION	CECOM	Jun 01	Feb 03	385	8	Yes		
FY 2002	TBS	C/FFP	CECOM	Jan 02	Aug 03	704	8	Yes		

REMARKS: All FY00 and FY01 options are awarded under the existing competitively awarded omnibus contracts with Litton and ITT.







# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	739.6	22.4	12.4	11.8	19.1							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	739.6	22.4	12.4	11.8	19.1							
Initial Spares	4.9											
Total Proc Cost	744.5	22.4	12.4	11.8	19.1							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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 (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 systems. The Federal Aviation Administration (FAA) and 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 will be replaced with new generation systems. These include the Voice Communication Switching System (VCSS), the DoD Advanced Automation (DAAS), 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:**

FY 02/03 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.

**Exhibit P-40C, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /4/SUPPORT EQUIPMENT AND FACILITIES

P-1 Item Nomenclature

COMMON GROUND EQUIPMENT (AZ3100)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

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. The AVIM 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 Standardized Organization (ISO) one-sided expandable shelters house AVIM Shop Set Complexes and provide the capability of maritime shipboard movement through commercial ports and are compatible with military/commercial roll-on/roll-off ships and military/commercial ground transportation. Battle Damage Assessment Repair (BDAR) kits will provide an expeditious means of combat damage assessment, deferment, and/or repair for all Army helicopters. Used to perform necessary repairs to allow helicopter to return to combat usage. The Aircraft Cleaning and Deicing System (ACDS) will provide for dispensing of premixed cleaners, deicers and water through a nozzle and wand assembly at the temperature and pressure appropriate for the task. Aviation Ground Power Units (AGPU) will be capable of meeting Army helicopter servicing requirements into the next decade. Helicopter 400 hertz electrical servicing has been significantly increased by the introduction of the Apache Longbow (AH-64D). An Aviation Vibration Analyzer (AVA) enhancement will increase capabilities and incorporate industry standard Personal Computer (PC) features that will enhance aviation safety, increase readiness, and reduce operational and maintenance (O&M) costs. The New Aviation Tool System (NATS) retrofit will purge poor quality tools from the system and add commercial aviation grade tools with lifetime warranty.

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: COMMON GROUND EQUIPMENT (AZ3100)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Aviation Ground Support Equipment		9706			11817			19113					
Airfield Support Equipment		2645											
<b>Total</b>		<b>12351</b>			<b>11817</b>			<b>19113</b>					

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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:

63801/B32 63801/B33

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	370.1	13.1	9.7	11.8	19.1							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	370.1	13.1	9.7	11.8	19.1							
Initial Spares	4.9											
Total Proc Cost	375.0	13.1	9.7	11.8	19.1							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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 02/03 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. The AVIM Containerization and Modernization Program (CAMP) provides 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 Standardized Organization (ISO) one-sided expandable shelters house AVIM Shop Set Complexes and provide the capability of maritime shipboard movement through commercial ports and are compatible with military/commercial roll-on/roll-off ships and military/commercial ground transportation. Battle Damage Assessment Repair (BDAR) kits will provide an expeditious means of combat damage assessment, deferment, and/or repair for all Army helicopters. Used to perform necessary repairs to allow helicopter to return to combat usage.

**Exhibit P-40C, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /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:

63801/B32 63801/B33

The Aircraft Cleaning and Deicing System (ACDS) will provide for dispensing of premixed cleaners, deicers and water through a nozzle and wand assembly at the temperature and pressure appropriate for the task. Aviation Ground Power Units (AGPU) will be capable of meeting Army helicopter servicing requirements into the next decade. Helicopter 400 hertz electrical servicing has been significantly increased by the introduction of the Apache Longbow (AH-64D). An Aviation Vibration Analyzer (AVA) enhancement will increase capabilities and incorporate industry standard Personal Computer (PC) features that will enhance aviation safety, increase readiness, and reduce operational and maintenance (O&M) costs. The New Aviation Tool System (NATS) retrofit will purge poor quality tools from the system and add commercial aviation grade tools with lifetime warranty. The Digital Aircraft Weight Scales (DAWS), with roll-on, roll-off capability, will provide increased accuracy with digital read-out, thereby reducing operational and maintenance costs. This equipment supports Legacy and Legacy-to-Objective Systems which relate to the Transformation Campaign Plan.

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Nondestructive Test Equipment (NDTE) Accessories		307											
<b>Subtotal</b>		<b>307</b>											
Flexible Engine Diagnostic System (FEDS) Fielding		2											
Engine Correlation		18											
Software Upgrade								360					
Prototype Updates								600					
<b>Subtotal</b>		<b>20</b>						<b>960</b>					
Shop Equipment Contact Maintenance (SECM) Fielding		14			23								
<b>Subtotal</b>		<b>14</b>			<b>23</b>								
Aircraft Vibration Analyzer (AVA) MOD Hardware(AVA)								4000	404	10			
Software		1787											
Software Installation		329											
Site Certification		38											
Shipping		5											
Fielding		23			5								
<b>Subtotal</b>		<b>2182</b>			<b>5</b>			<b>4000</b>					
Generic Aircraft Nitrogen Generator (GANG) Hardware (GANG)		1839	54	35									
Fielding		17			20			10					
Accessories					32								
<b>Subtotal</b>		<b>1856</b>			<b>52</b>			<b>10</b>					
New Aviation Tool Set (NATS) Retrofit Retrofit					1301								
Fielding		5			10			5					

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>Subtotal</b>		<b>5</b>			<b>1311</b>			<b>5</b>					
Aviation Ground Power Unit (AGPU) MOD Hardware (AGPU) Refurbishment MWO		584 100			105			1000 13		77			
<b>Subtotal</b>		<b>684</b>			<b>105</b>			<b>1000</b>					
AVIM Shop Sets Hardware (AVIM Shop Sets) Fielding		1464 3	2	732	2592 10	3	864	4375 5	5	875			
<b>Subtotal</b>		<b>1467</b>			<b>2602</b>			<b>4380</b>					
ISO Shelters Hardware (ISO Shelters) Refurbishment S-280 Prep and Ship		1140 46	19	60	1974 228	33	60	2160 456	36	60			
<b>Subtotal</b>		<b>1186</b>			<b>2202</b>			<b>2616</b>					
Containerization and Modernization Program (CAMP) Shop Sets Hardware (CAMP)													
<b>Subtotal</b>													
Unit Maintenance Aerial Recovery Kit (UMARK) Hardware w/crossbar (UMARK) Hardware w/o crossbar (UMARK) Technical Services Fielding					1980 300 30 15	44 20	45 15	3870 555 11	86 37	45 15			
<b>Subtotal</b>					<b>2325</b>			<b>4436</b>					
Fuel Quantity Gauge Tester Hardware (Fuel Qty Gauge Tester)		478	72	7									

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>Subtotal</b>		<b>478</b>											
Helicopter External Lift Enhancer (HELE) (Congressional Plus-up)													
Hardware (HELE)		155	2	78									
Program Management Support		183											
Safety Release		182											
Test and Evaluation		480											
<b>Subtotal</b>		<b>1000</b>											
Battle Damage Assessment Repair Kit (BDAR)													
Hardware (BDAR)													
Fielding													
<b>Subtotal</b>													
Aircraft Cleaning and Deicing System (ACDS)													
Hardware (ACDS)													
<b>Subtotal</b>													
Digital Aircraft Weight Scales (DAWS) Hardware (DAWS)													
<b>Subtotal</b>													
AGSE Program Management Support		507			836			936					
<b>Subtotal</b>		<b>507</b>			<b>836</b>			<b>936</b>					
AGSE In-House Support					227			770					
<b>Subtotal</b>					<b>227</b>			<b>770</b>					
AWCF Quarterly Adjustment					2129								

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>Subtotal</b>					<b>2129</b>								
<b>Total</b>		<b>9706</b>			<b>11817</b>			<b>19113</b>					

**Exhibit P-5a, Budget Procurement History and Planning**

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

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

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Aircraft Vibration Analyzer (AVA) MOD</b> <b>Hardware(AVA)</b> FY 2002	Smith Industries Aerospace San Diego, CA	SS/FP	AMCOM	MAR 02	SEP 02	404	10	YES	NO	
<b>Generic Aircraft Nitrogen Generator (GANG)</b> <b>Hardware (GANG)</b> FY 2000	Pacific Industries, Inc. Santa Anna, CA	C/FP-O	Kelly AFB	MAR 00	MAY 00	54	35	YES	NO	
<b>Aviation Ground Power Unit (AGPU) MOD</b> <b>Hardware (AGPU)</b> FY 2002	Air Force Warner-Robbins AFB, GA	MIPR	AMCOM	DEC 01	JUN 02	13	77	YES	NO	
<b>AVIM Shop Sets</b> <b>Hardware (AVIM Shop Sets)</b> FY 2000	Rock Island Arsenal Rock Island, IL	MIPR	AMCOM	FEB 00	DEC 00	2	732	YES	NO	
FY 2001	Rock Island Arsenal Rock Island, IL	MIPR	AMCOM	DEC 00	OCT 01	3	864	YES	NO	
FY 2002	Rock Island Arsenal Rock Island, IL	MIPR	AMCOM	DEC 01	OCT 02	5	875	YES	NO	

REMARKS:

## Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

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

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>ISO Shelters</b>										
<b>Hardware (ISO Shelters)</b>										
FY 2000	Soldier & Biological Chem Comm Natick, MA	MIPR	AMCOM	FEB 00	AUG 00	19	60	YES	NO	
FY 2001	Soldier & Biological Chem Comm Natick, MA	MIPR	AMCOM	DEC 00	JUN 01	33	60	YES	NO	
FY 2002	Soldier & Biological Chem Comm Natick, MA	MIPR	AMCOM	DEC 01	JUN 02	36	60	YES	NO	
<b>Containerization and Modernization Program (CAMP) Shop Sets</b>										
<b>Hardware (CAMP)</b>										
<b>Unit Maintenance Aerial Recovery Kit (UMARK)</b>										
<b>Hardware w/crossbar (UMARK)</b>										
FY 2001	KAMAN Aerospace Corp Bloomfield, CT	SS/FP	AMCOM	JUN 01	JUN 02	44	45	YES	NO	
FY 2002	KAMAN Aerospace Corp Bloomfield, CT	SS/FP-O	AMCOM	DEC 01	DEC 02	86	45	YES	NO	
<b>Hardware w/o crossbar (UMARK)</b>										
FY 2001	KAMAN Aerospace Corp Bloomfield, CT	SS/FP	AMCOM	JUN 01	JUN 02	20	15	YES	NO	

REMARKS:

## Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

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

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 2002 <b>Fuel Quantity Gauge Tester Hardware (Fuel Qty Gauge Tester)</b>	KAMAN Aerospace Corp Bloomfield, CT	SS/FP-O	AMCOM	DEC 01	DEC 02	37	15	YES	NO	
FY 2000 <b>Helicopter External Lift Enhancer (HELE) (Congressional Plus-up) Hardware (HELE)</b>	Air Force Kelly AFB, TX	MIPR	AMCOM	FEB 00	MAY 00	72	7	YES	NO	
FY 2000 <b>Battle Damage Assessment Repair Kit (BDAR) Hardware (BDAR) Aircraft Cleaning and Deicing System (ACDS) Hardware (ACDS) Digital Aircraft Weight Scales (DAWS)</b>	Sky Hook Technologies Huntsville, AL	S/FP	AMCOM	JUN 00	JUL 00	2	78	YES	NO	

REMARKS:

# Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

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

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Hardware (DAWS)</b>										

REMARKS:

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	61.5	9.0	17.2	10.3	10.3							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	61.5	9.0	17.2	10.3	10.3							
Initial Spares												
Total Proc Cost	61.5	9.0	17.2	10.3	10.3							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Aircrew Integrated Systems (ACIS) programs provide improved aviator safety, survivability, and human performance that amplify the warfighting effectiveness of the Army Transformation. These programs address 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. ACIS programs include Air Warrior, the Cockpit Air Bag System (CABS) for the UH-60 Black Hawk aircraft and the Digital Source Collector (DSC). The Air Warrior program is a vital soldier system, is linked to the Land Warrior program through the Soldier Systems Capstone Requirements document and is one on the Army's 7 core programs for the objective force. Air Warrior provides a system level approach to Aviation Life Support Equipment including the flight helmet, laser eye protection and survival gear to be used in an escape and evade scenario, microclimate cooling, sound attenuation devices, over water equipment, night vision devices, extraction capability, chemical and biological protection, and the flight duty uniform. Air Warrior also includes the integration efforts on the UH-60L/M Blackhawk, AH-64A/D Apache, CH-47D/F Chinook, OH-58D Kiowa Warrior, and Special Operations aircraft. Block 1 Air Warrior ensembles will be procured to integrate aircrew equipment for maximum aircrew effectiveness by providing increased mission performance and safety, reduction of equipment weight and bulk, and increased tailorability to specific missions, threats, and the various aircraft platforms operated. Specifically, Air Warrior will enable the Army Aviation Warfighter to exceed the approved Operational Requirements Document Key Performance Parameter mission length of 5.3 hours, as opposed to the 1.6 hours of mission capability that exists today with aviators in full chemical/biological protective gear. The results of future development efforts will be applied as Block Improvements to the Block 1 Air Warrior ensembles production as new technologies evolve. A Nondevelopmental Item demonstration program for DSC (flight data and voice recorder) for non-bussed Army rotary wing aircraft was also funded in this Standard Study Number. This system supports the Legacy to Objective transition path of the Transformation Campaign Plan (TCP).

**Exhibit P-40C, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /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)

**Justification:**

FY02/03 procures the Air Warrior basic ensemble and aircraft platform integration and production. Aircraft Procurement, Army (APA) funding for all ACIS programs and projects is included in this budget line item. The FY00 and FY01 CABS funding will provide for acquisition of the CABS 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 Air Bag modules and the crash sensor and system packaging.

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>Hardware</b>													
<b>Cockpit Air Bag System (CABS)</b>													
CABS-Production		6194	177	35	1414	40	35						
Digital Source Collector (DSC) interface		1405	234	6									
Helmets - HGU-56/P:National Guard		3137	3433	1	4261	4133	1						
PRC-112 survival radios & spt equipment		2200	275	8									
Laser Eye Protective Devices		234	294	1	2378	3908	1						
Communications Ear Plugs		1102	7346	0									
Air Warrior Basic Ensembles													
<b>Subtotal Hardware Costs</b>		<b>14272</b>			<b>8053</b>								
CABS ECPs		1000											
Air Warrior ECP								7228					
Systems Integration Engineering					1441			1740					
Project Management Admin		1295			534			1185					
<b>Subtotal ECP, Sys Int, &amp; Admin Costs</b>		<b>2295</b>			<b>1975</b>			<b>10153</b>					
<b>Support Costs</b>													
Fielding		600			266			100					
<b>Total</b>		<b>17167</b>			<b>10294</b>			<b>10253</b>					

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /4/SUPPORT EQUIPMENT AND FACILITIES

P-1 Item Nomenclature

AIR TRAFFIC CONTROL (AA0050)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

0604633A/586 Air Traffic Control

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	80.6	15.1	18.4	73.5	68.9							
Less PY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Plus CY Adv Proc	0.0	0.0	0.0	0.0	0.0							
Net Proc (P-1)	80.6	15.1	18.4	73.5	68.9							
Initial Spares												
Total Proc Cost	80.6	15.1	18.4	73.5	68.9							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

Fixed Base Air Traffic Control requirements will be met through a vast array of high technology solutions resulting in highly reliable and safe Air Traffic Control systems. The Joint DoD/Federal Aviation (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 system) and installing state of the art digital technology. These include the Voice Communication Switching System (VCSS), the DoD Advanced Automation System (DAAS), 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.

Tactical Air Traffic Control equipment includes Air Traffic Navigation Integration and Coordination System (ATNAVICs), and the Tactical Airspace Integration System (TAIS). 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.

**Justification:**

FY 02/FY 03 funds for fixed base ATC systems will provide the Army the joint service capability to procure specific fixed base Air Traffic Control (ATC) systems required for the joint DoD 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.

**Exhibit P-40C, Budget Item Justification Sheet**

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /4/SUPPORT EQUIPMENT AND FACILITIES

P-1 Item Nomenclature

AIR TRAFFIC CONTROL (AA0050)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

0604633A/586 Air Traffic Control

Equipment quantity and configuration will be tailored to meet specific site requirements, which will result in varying unit costs. Funding will also ensure interoperability between the 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.

Funds for tactical ATC systems 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 previous 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 maneuver commander/Army aviator by providing vast improvements in the areas of secure communications, automated data processing, equipment reliability, survivability, and transportability. The transformation path for Air Traffic Control systems is Legacy-to-Objective as systems are critical to safety.

NOTE: FY 00 and prior funds for Fixed Base ATC systems were on the Airfield Support Equipment budget line (AZ1710).

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AIR TRAFFIC CONTROL (AA0050)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>Fixed Base Precision Approach Radar</b>													
Hardware-Precision Approach Radar					3872	2	1936	11453	6	1909			
Production Start Up Costs													
Interim Contractor Support (ICS)					124			332					
Engineer, Furnish & Install (EF&I)					2154			3479					
Testing					314								
Fielding					288			211					
Data					103			135					
<b>Subtotal Costs</b>					<b>6855</b>			<b>15610</b>					
<b>Voice Communication Switching Syst(VCSS)</b>													
Hardware-(VCSS)					3495	12	291	2249	8	281			
Interim Contractor Support					15			56					
Engineer, Furnish & Install (EF&I)					1611			1055					
Fielding					250			255					
<b>Subtotal Cost</b>					<b>5371</b>			<b>3615</b>					
<b>DoD Advanced Automation System (DAAS)</b>													
Hardware (DAAS)					2800	1	2800	4675	2	2338			
Hardware ( Remote Tower Only)					2587	4	647	1334	2	667			
Interim Contract Support (ICS)													
Engineer, Furnish & Install (EF&I)					922			1087					
<b>Subtotal Costs</b>					<b>6309</b>			<b>7096</b>					
<b>Digital Airport Surveillance Radar(DASR)</b>													
Hardware (DASR)								9208	2	4604			
Engineer, Furnish, & Install (EF&I)					1368			3376					
<b>Subtotal Costs</b>					<b>1368</b>			<b>12584</b>					
<b>Tactical Airspace Integration Sys (TAIS)</b>													
Hardware (TAIS)		3381	1	3381	15790	6	2632	8823	4	2206			
Production Software Support		10442			8812			5939					
GFE		713			4500			3050					
Interim Contractor Support (ICS)					481			721					
Logistics					2355								
Provisioning					885								

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AIR TRAFFIC CONTROL (AA0050)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Testing		8			250			200					
Fielding		208			323			577					
Training		150											
Other		75											
<b>Subtotal Costs</b>		<b>14977</b>			<b>33396</b>			<b>19310</b>					
<b>Air Traffic Navigation and Integration</b>													
Hardware (ATNAVICS)		3337	1	3337	16595	7	2371	5799	2	2900			
Production Start Up Costs					1458			3598					
GFE					1315			388					
Interim Contract Support (ICS)					125			532					
Training		21				7							
Testing					473								
Fielding		75			199			355					
<b>Subtotal Costs</b>		<b>3433</b>			<b>20165</b>			<b>10672</b>					
<b>Total</b>		<b>18410</b>			<b>73464</b>			<b>68887</b>					

## Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

P-1 Line Item Nomenclature:  
AIR TRAFFIC CONTROL (AA0050)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Hardware-Precision Approach Radar</b>										
FY 2001	Raytheon Cambridge, MA	C/FP-O	CECOM	Dec 00	Mar 02	2	1936	Yes	No	
FY 2002	Raytheon Cambridge, MA	C/FP-O	CECOM	Jan 02	Apr 03	6	1909	Yes	No	
<b>Hardware-(VCSS)</b>										
FY 2001	Litton/Denro Gaithersburg MD	C/FP-O	FAA	Nov 00	May 01	12	291	Yes	No	
FY 2002	Litton/Denro Gaithersburg MD	C/FP-O	FAA	Jan 02	Jul 02	8	281	Yes	No	
<b>Hardware (DAAS)</b>										
FY 2001	Raytheon Malborough MA	C/FP-O	FAA	April 01	Apr 02	1	2800	Yes	No	
FY 2002	Raytheon Malborough MA	C/FP-O	FAA	Jan 02	Jan 03	2	2338	Yes	No	
<b>Hardware (DASR)</b>										
FY 2002	Raytheon Malborough MA	C/FP	USAF	Jan 02	Jul 03	2	4604	Yes	No	
<b>Hardware (TAIS)</b>										
FY 2000	Motorola Huntsville, AL	C/FP-O	AMCOM	Feb 00	Dec 01	1	3381	Yes	No	
FY 2001	Motorola Huntsville, AL	C/FP-O	AMCOM	Dec 00	Mar 02	6	2632	Yes	No	
FY 2002	Motorola Huntsville, AL	C/FP-O	AMCOM	Jan 02	Jan 03	4	2206	Yes	No	

REMARKS:

# Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

P-1 Line Item Nomenclature:  
AIR TRAFFIC CONTROL (AA0050)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Hardware (ATNAVICS)</b>										
FY 2000	Raytheon Cambridge, MA	C/FP	CECOM	Feb 00	Jun 01	1	3337	Yes	No	
FY 2001	Raytheon Cambridge, MA	C/FP-O	CECOM	Dec 00	Dec 01	7	2371	Yes	No	
FY 2002	Raytheon Cambridge, MA	C/FP-O	CECOM	Jan 02	Jan 03	2	2900	Yes	No	

REMARKS:

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	402.0	1.5	1.4	1.4	0.7							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	402.0	1.5	1.4	1.4	0.7							
Initial Spares												
Total Proc Cost	402.0	1.5	1.4	1.4	0.7							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

This program provides funding to the Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC) to establish, modernize, expand or replace Army-owned industrial facilities used in production testing of Aircraft and Aircraft components. It sustains Army production test capabilities through upgrade and replacement of instrumentation and equipment that is technologically and/or economically obsolete. Modernization of test instrumentation and equipment generally provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. This project procures airborne instrumentation and support equipment to collect in-flight compatibility, reliability, and safety measurements of Army aircraft. Programmed funding will be used to upgrade or replace production test instrumentation and equipment at the Aviation Technical Test Center, Fort Rucker, AL. This project supports all transition paths of the Army Transformation Campaign Plan (TCP).

**Justification:**

FY02/03 procures: Global Positioning System transmitters and receivers used to determine aircraft position; vans for mobile telemetry data reception and processing; Personal Computer (PC) based workstations for data analysis and processing by test engineers; signal conditioners for on-board data collection by common instrumentation; local area network upgrade to distribute large volumes of voice, video and digital data; transducers for on-board data collection; ground-to-air radios; digital cameras and data recorders; pre-flight checkout and data processing equipment; high speed 20 mega bit per second digital data recorder; and PC based telemetry data acquisition equipment. This instrumentation is required to ensure complete and accurate test data is collected and safety and environmental hazards are minimized. The majority of the instrumentation being upgraded or replaced is obsolete and has met or exceeded it's economic life. Benefits of this project include increased test efficiencies and decreased costs and risks to Army Program Managers.

# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /4/SUPPORT EQUIPMENT AND FACILITIES

P-1 Item Nomenclature

LAUNCHER, 2.75 ROCKET (A50100)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	51.6				5.0							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	51.6				5.0							
Initial Spares												
Total Proc Cost	51.6				5.0							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

The U.S. Army Lightweight Launchers (LWL) are critical to the Legacy Force. The M261 19-tube and M260 7-tube rocket launchers are used to fire 2.75 Inch HYDRA 70 rockets from the following platforms: AH-64 Apache, OH-58D Kiowa Warrior, MH-60L Blackhawk, AH-1 Cobra, and AH-6J helicopters. The rocket and launcher system executes a crucial mission as part of the Legacy Force by maintaining a combat overmatch capability and ensuring a near-term warfighting readiness posture. The aluminum launchers are inexpensive enough to be disposable yet durable enough to be reused after as many as 32 firings. The weight savings, as compared to previous launchers, allow the Army to add other features to the aircraft and rocket system for improved performance. The launcher permits fuze-timing selection from the cockpit and will launch rockets using either the MK 40 or the MK 66 motors.

**Justification:**

This funding procures 19-tube and 7-tube rocket launchers for AH-64 Apache, OH-58D Kiowa Warrior, MH-60L Blackhawk, AH-1 Cobra, and AH-6J helicopters that have not been purchased since 1993. Funding replaces launchers expended as a result of annual rocket firings in training and replenishes the limited issuable stockage that has been depleted below levels acceptable to support training and war reserve requirements of Active Army, Special Operations Forces and Reserve Component usage.

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: LAUNCHER, 2.75 ROCKET (A50100)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>M260 (7-Tube Lightweight Launcher (LWL))</b>													
Hardware								4561	700	6.516			
Support Total								399					
<b>Total M260</b>								<b>4960</b>					
<b>Total</b>								<b>4960</b>		<b>7.086</b>			<b>7.227</b>

# Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

P-1 Line Item Nomenclature:  
LAUNCHER, 2.75 ROCKET (A50100)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>Hardware</b> FY 2002	TBS	C/FFP	TACOM-RI	Jun-02	Jun-03	700	6.516	Y		Jan-02

REMARKS:





# Exhibit P-40, Budget Item Justification Sheet

Date:

June 2001

Appropriation/Budget Activity/Serial No:

Aircraft Procurement, Army /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 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete	Total Prog
Proc Qty												
Gross Cost	129.8	41.9	43.2	7.9	19.8							
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (P-1)	129.8	41.9	43.2	7.9	19.8							
Initial Spares												
Total Proc Cost	129.8	41.9	43.2	7.9	19.8							
Flyaway U/C												
Wpn Sys Proc U/C												

**Description:**

**PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.**

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. ARC-220 supports the Legacy-to-Objective transition path of the Transformation Campaign Plan.

**Justification:**

FY02/03 procures 68 Apache A/D A-Kits. Supports Required Operation Capability (ROC) for NOE Communications dated 7 May 1980 and updated in approved Operational 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 33% of the A-Kits for the Apache aircraft as identified by Task Force Hawk. 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.

<b>Exhibit P-5, Weapon ACFT Cost Analysis</b>		Appropriation/Budget Activity/Serial No. Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES			P-1 Line Item Nomenclature: AIRBORNE COMMUNICATIONS (AA0705)			Weapon System Type:			Date: June 2001		
<b>ACFT Cost Elements</b>	ID CD	<b>FY 00</b>			<b>FY 01</b>			<b>FY 02</b>			<b>FY 03</b>		
		TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost	TotalCost	Qty	UnitCost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
<b>RECURRING COSTS</b>													
A. AN/ARC-220 NOE HF Airborne Radio		13560	594	23	1185	50	24						
B. AN/VRC-100 Ground Radio		2033	66	31									
C. A-Kits		5065	439	12	5253	50	105	4031	23	175			
D. A-Kit Installation		17180	1310	13	20	38	1	8055	539	15			
<b>SUBTOTAL</b>		<b>37838</b>			<b>6458</b>			<b>12086</b>					
<b>NON-RECURRING COSTS</b>													
A. A-Kit Intergration		224						3200					
B. Other System Test													
<b>SUBTOTAL</b>		<b>224</b>						<b>3200</b>					
<b>SUPPORT COST</b>													
A. Fielding Support		3417			1073			3523					
B. Program Management		1704			396			990					
<b>SUBTOTAL</b>		<b>5121</b>			<b>1469</b>			<b>4513</b>					
<b>Total</b>		<b>43183</b>			<b>7927</b>			<b>19799</b>					

## Exhibit P-5a, Budget Procurement History and Planning

Date:  
June 2001

Appropriation/Budget Activity/Serial No:  
Aircraft Procurement, Army / 4 / SUPPORT EQUIPMENT AND FACILITIES

Weapon System Type:

P-1 Line Item Nomenclature:  
AIRBORNE COMMUNICATIONS (AA0705)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Each	Unit Cost \$	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
<b>A. AN/ARC-220 NOE HF Airborne Radio</b>										
FY 2000	Rockwell International Cedar Rapids, IA	C/FP	CECOM	Feb 00	Feb 01	594	23	Yes		
FY 2001	Rockwell International Cedar Rapids, IA	C/FP	CECOM	Feb 01	Feb 02	50	24	Yes		
<b>B. AN/VRC-100 Ground Radio</b>										
FY 2000	Rockwell International Cedar Rapids, IA	C/FP	CECOM	Feb 00	Feb 01	66	31	Yes		

REMARKS:





## **End of P&R Forms Report**

Who: System Admin When: 10-Jul-01 10:54 AM