

DEPARTMENT OF THE ARMY

Procurement Programs



Committee Staff Procurement Backup Book
Fiscal Year 2012 Budget Estimate

AIRCRAFT PROCUREMENT, ARMY

APPROPRIATION

February 2011

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APPROPRIATION SUMMARY

DOLLARS IN THOUSANDS

APPROPRIATION

Aircraft Procurement, Army

TOTAL PROCUREMENT PROGRAM

<u>FY2010</u>	<u>FY2011</u>	<u>FY2012</u>	<u>FY2012 OCO</u>	<u>FY2012 Total</u>
6,649,187	7,350,670	7,061,381	423,400	7,484,781
6,649,187	7,350,670	7,061,381	423,400	7,484,781

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APPROPRIATION Aircraft Procurement, Army ACTIVITY		DOLLARS IN THOUSANDS					PAGE
		FY2010	FY2011	FY2012	FY2012 OCO	FY2012 Total	
01	Aircraft	3,713,755	4,184,374	5,127,916	118,000	5,245,916	4
02	Modification of aircraft	2,306,723	2,468,356	1,351,411	305,400	1,656,811	6
03	Spares and repair parts	28,013	7,328				8
04	Support equipment and facilities	600,696	690,612	582,054		582,054	9
APPROPRIATION TOTALS		6,649,187	7,350,670	7,061,381	423,400	7,484,781	

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APPROPRIATION Aircraft Procurement, Army		ACTIVITY 01 Aircraft		DOLLARS IN THOUSANDS									
LINE NO	ITEM NOMENCLATURE	ID	FY 2010		FY 2011		FY 2012		FY 2012 OCO		FY 2012 TOTAL		
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	
<i>FIXED WING</i>													
1	UTILITY F/W AIRCRAFT (A11300)									14,572		14,572	
2	C-12 CARGO AIRPLANE (A02700)	A		45,000	5	78,060			1	10,500	1	10,500	
3	AERIAL COMMON SENSOR (ACS) (MIP) (A02005)	A				88,483	18	539,574			18	539,574	
4	MQ-1 UAV (A00005)	A	24	439,650	29	506,310	36	658,798			36	658,798	
5	RQ-11 (RAVEN) (A00010)	A	876	84,340	312	37,582	1,272	70,762			1,272	70,762	
6	BCT Unmanned Aerial Veh (UAVS) Incr 1 (A00015)	A				44,206							
	<i>SUB-ACTIVITY TOTAL</i>			<u>568,990</u>		<u>754,641</u>		<u>1,283,706</u>		<u>10,500</u>		<u>1,294,206</u>	
<i>ROTARY</i>													
7	HELICOPTER, LIGHT UTILITY (LUH) (A05001)	A	54	325,034	50	305,272	39	250,415			39	250,415	
8	AH-64 APACHE BLOCK IIIA REMAN (A05111) Less: Advance Procurement (PY)	A	8	(195,383)	16	(563,084)	19	(411,005)			19	(411,005)	
				<u>195,383</u>		<u>493,831</u>		<u>411,005</u>				<u>411,005</u>	
9	AH-64 APACHE BLOCK IIIA REMAN (A05111) Advance Procurement (CY)			69,253				192,764				192,764	
10	AH-64 APACHE BLOCK IIIB NEW BUILD (A05133)	A							1	35,500	1	35,500	
11	AH-64 APACHE BLOCK IIIB NEW BUILD (A05133) Advance Procurement (CY)							104,263				104,263	
12	APACHE BLOCK II NEW BUILD (A05121)	A		34,600									
13	UH-60 BLACKHAWK M MODEL (MYP) (AA0005) Less: Advance Procurement (PY)		81	(1,519,304)	74	(1,392,991)	71	(1,426,198)	4	(72,000)	75	(1,498,198)	
				<u>(-134,530)</u>		<u>(-101,925)</u>		<u>(-100,532)</u>				<u>(-100,532)</u>	
				<u>1,384,774</u>		<u>1,291,066</u>		<u>1,325,666</u>		<u>72,000</u>		<u>1,397,666</u>	
14	UH-60 BLACKHAWK M MODEL (MYP) (AA0005) Advance Procurement (CY)			98,435		100,532		199,781				199,781	

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APPROPRIATION Aircraft Procurement, Army		ACTIVITY 01 Aircraft	DOLLARS IN THOUSANDS									
LINE NO	ITEM NOMENCLATURE	ID	FY 2010		FY 2011		FY 2012		FY 2012 OCO		FY 2012 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
15	CH-47 HELICOPTER (A05101) Less: Advance Procurement (PY)	A	37	(986,766)	42	(1,222,413)	47	(1,363,116)			47	(1,363,116)
						(-50,520)		(-57,756)				(-57,756)
				<u>986,766</u>		<u>1,171,893</u>		<u>1,305,360</u>				<u>1,305,360</u>
16	CH-47 HELICOPTER (A05101) Advance Procurement (CY)			50,520		57,756		54,956				54,956
17	HELICOPTER NEW TRAINING (A06500)					9,383						
	<i>SUB-ACTIVITY TOTAL</i>			<u>3,144,765</u>		<u>3,429,733</u>		<u>3,844,210</u>		<u>107,500</u>		<u>3,951,710</u>
	ACTIVITY TOTAL			<u>3,713,755</u>		<u>4,184,374</u>		<u>5,127,916</u>		<u>118,000</u>		<u>5,245,916</u>

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 DATE: 09-Feb-2011 12:30

APPROPRIATION Aircraft Procurement, Army

ACTIVITY 02 Modification of aircraft

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2010		FY 2011		FY 2012		FY 2012 OCO		FY 2012 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
<i>MODIFICATIONS OF AIRCRAFT</i>												
18	C12 AIRCRAFT MODS (A01234)	A		40,000		122,340						
19	MQ-1 PAYLOAD - UAS (A00020)	A		87,154		104,013		136,183		10,800		146,983
20	MQ-1 WEAPONIZATION - UAS (A00025)	A		3,786		14,729						
21	GUARDRAIL MODS (MIP) (AZ2000)			111,537		60,099		27,575				27,575
22	MULTI SENSOR ABN RECON (MIP) (AZ2001)			121,037		103,181		8,362		54,500		62,862
23	AH-64 MODS (AA6605)	A		(590,849)		(592,969)		(331,230)				(331,230)
	Less: Advance Procurement (PY)			(-47,800)								
				<u>543,049</u>		<u>592,969</u>		<u>331,230</u>				<u>331,230</u>
24	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)			(143,479)		(149,107)		(79,712)				(79,712)
	Less: Advance Procurement (PY)			(-49,473)								
				<u>94,006</u>		<u>149,107</u>		<u>79,712</u>				<u>79,712</u>
25	UTILITY/CARGO AIRPLANE MODS (AA0270)			31,425		13,716		22,107				22,107
26	AIRCRAFT LONG RANGE MODS (AA0560)			820		814						
27	UTILITY HELICOPTER MODS (AA0480)			139,228		77,615		80,745				80,745
28	KIOWA WARRIOR (AZ2200)			174,854	15	281,688		162,052	15	145,500	15	307,552
29	AIRBORNE AVIONICS (AA0700)			207,064		244,408						
30	NETWORK AND MISSION PLAN (AA0712)	A						138,832				138,832
31	COMMS, NAV SURVEILLANCE (AA0723)	A						132,855				132,855
32	GATM Rollup (AA0711)	A		102,824		100,862		105,519				105,519
33	RQ-7 UAV MODS (A00018)	A		649,939		602,815		126,239		94,600		220,839

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APPROPRIATION Aircraft Procurement, Army

ACTIVITY 02 Modification of aircraft

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2010		FY 2011		FY 2012		FY 2012 OCO		FY 2012 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	<i>SUB-ACTIVITY TOTAL</i>			<u>2,306,723</u>		<u>2,468,356</u>		<u>1,351,411</u>		<u>305,400</u>		<u>1,656,811</u>
	ACTIVITY TOTAL			2,306,723		2,468,356		1,351,411		305,400		1,656,811

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APPROPRIATION Aircraft Procurement, Army

ACTIVITY 03 Spares and repair parts

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2010		FY 2011		FY 2012		FY 2012 OCO		FY 2012 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	<i>SPARES AND REPAIR PARTS</i>											
34	SPARE PARTS (AIR) (AA0950)			28,013		7,328						
	<i>SUB-ACTIVITY TOTAL</i>			<u>28,013</u>		<u>7,328</u>						
	ACTIVITY TOTAL			<u>28,013</u>		<u>7,328</u>		<u>0</u>				<u>0</u>

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APPROPRIATION Aircraft Procurement, Army

ACTIVITY 04 Support equipment and facilities

DOLLARS IN THOUSANDS

LINE NO	ITEM NOMENCLATURE	ID	FY 2010		FY 2011		FY 2012		FY 2012 OCO		FY 2012 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
<i>GROUND SUPPORT AVIONICS</i>												
35	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)			25,895		24,478		35,993				35,993
36	SURVIVABILITY CM (AZ3507)			285,141		372,212						
37	CMWS (AZ3517)	A						162,811				162,811
	<i>SUB-ACTIVITY TOTAL</i>			<u>311,036</u>		<u>396,690</u>		<u>198,804</u>				<u>198,804</u>
<i>OTHER SUPPORT</i>												
38	AVIONICS SUPPORT EQUIPMENT (AZ3000)			4,918		4,885		4,840				4,840
39	COMMON GROUND EQUIPMENT (AZ3100)			116,616		141,756		176,212				176,212
40	AIRCREW INTEGRATED SYSTEMS (AZ3110)			66,053		52,423		82,883				82,883
41	AIR TRAFFIC CONTROL (AA0050)			86,762		90,399		114,844				114,844
42	INDUSTRIAL FACILITIES (AZ3300)			1,528		1,567		1,593				1,593
43	LAUNCHER, 2.75 ROCKET (A50100)			2,708		2,892	464	2,878			464	2,878
44	AIRBORNE COMMUNICATIONS (AA0705)			11,075								
	<i>SUB-ACTIVITY TOTAL</i>			<u>289,660</u>		<u>293,922</u>		<u>383,250</u>				<u>383,250</u>
	ACTIVITY TOTAL			<u>600,696</u>		<u>690,612</u>		<u>582,054</u>				<u>582,054</u>
	APPROPRIATION TOTAL			<u>6,649,187</u>		<u>7,350,670</u>		<u>7,061,381</u>	<u>423,400</u>			<u>7,484,781</u>

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SSN	LINE	PAGE	NOMENCLATURE
A02005	3	4	AERIAL COMMON SENSOR (ACS) (MIP) (A02005)
A05111	8	4	AH-64 APACHE BLOCK IIIA REMAN (A05111)
A05111	9	4	AH-64 APACHE BLOCK IIIA REMAN (A05111)
A05133	10	4	AH-64 APACHE BLOCK IIIB NEW BUILD (A05133)
A05133	11	4	AH-64 APACHE BLOCK IIIB NEW BUILD (A05133)
AA6605	23	6	AH-64 MODS (AA6605)
AA0050	41	9	AIR TRAFFIC CONTROL (AA0050)
AA0700	29	6	AIRBORNE AVIONICS (AA0700)
AA0705	44	9	AIRBORNE COMMUNICATIONS (AA0705)
AA0560	26	6	AIRCRAFT LONG RANGE MODS (AA0560)
AZ3504	35	9	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)
AZ3110	40	9	AIRCREW INTEGRATED SYSTEMS (AZ3110)
A05121	12	4	APACHE BLOCK II NEW BUILD (A05121)
AZ3000	38	9	AVIONICS SUPPORT EQUIPMENT (AZ3000)
A00015	6	4	BCT Unmanned Aerial Veh (UAVS) Incr 1 (A00015)
A02700	2	4	C-12 CARGO AIRPLANE (A02700)
A01234	18	6	C12 AIRCRAFT MODS (A01234)
AA0252	24	6	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)
A05101	15	5	CH-47 HELICOPTER (A05101)
A05101	16	5	CH-47 HELICOPTER (A05101)
AZ3517	37	9	CMWS (AZ3517)
AZ3100	39	9	COMMON GROUND EQUIPMENT (AZ3100)
AA0723	31	6	COMMS, NAV SURVEILLANCE (AA0723)
AA0711	32	6	GATM Rollup (AA0711)
AZ2000	21	6	GUARDRAIL MODS (MIP) (AZ2000)
A06500	17	5	HELICOPTER NEW TRAINING (A06500)
A05001	7	4	HELICOPTER, LIGHT UTILITY (LUH) (A05001)
AZ3300	42	9	INDUSTRIAL FACILITIES (AZ3300)
AZ2200	28	6	KIOWA WARRIOR (AZ2200)
A50100	43	9	LAUNCHER, 2.75 ROCKET (A50100)
A05111	8	4	Less: Advance Procurement (PY)
AA0005	13	4	Less: Advance Procurement (PY)
A05101	15	5	Less: Advance Procurement (PY)
AA6605	23	6	Less: Advance Procurement (PY)
AA0252	24	6	Less: Advance Procurement (PY)
A00020	19	6	MQ-1 PAYLOAD - UAS (A00020)
A00005	4	4	MQ-1 UAV (A00005)
A00025	20	6	MQ-1 WEAPONIZATION - UAS (A00025)
AZ2001	22	6	MULTI SENSOR ABN RECON (MIP) (AZ2001)
AA0712	30	6	NETWORK AND MISSION PLAN (AA0712)
A00010	5	4	RQ-11 (RAVEN) (A00010)
A00018	33	6	RQ-7 UAV MODS (A00018)

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SSN	LINE	PAGE	NOMENCLATURE
AA0950	34	8	SPARE PARTS (AIR) (AA0950)
AZ3507	36	9	SURVIVABILITY CM (AZ3507)
AA0005	13	4	UH-60 BLACKHAWK M MODEL (MYP) (AA0005)
AA0005	14	4	UH-60 BLACKHAWK M MODEL (MYP) (AA0005)
A11300	1	4	UTILITY F/W AIRCRAFT (A11300)
AA0480	27	6	UTILITY HELICOPTER MODS (AA0480)
AA0270	25	6	UTILITY/CARGO AIRPLANE MODS (AA0270)

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SSN	LINE	PAGE	NOMENCLATURE
A00005	4	4	MQ-1 UAV (A00005)
A00010	5	4	RQ-11 (RAVEN) (A00010)
A00015	6	4	BCT Unmanned Aerial Veh (UAVS) Incr 1 (A00015)
A00018	33	6	RQ-7 UAV MODS (A00018)
A00020	19	6	MQ-1 PAYLOAD - UAS (A00020)
A00025	20	6	MQ-1 WEAPONIZATION - UAS (A00025)
A01234	18	6	C12 AIRCRAFT MODS (A01234)
A02005	3	4	AERIAL COMMON SENSOR (ACS) (MIP) (A02005)
A02700	2	4	C-12 CARGO AIRPLANE (A02700)
A05001	7	4	HELICOPTER, LIGHT UTILITY (LUH) (A05001)
A05101	15	5	CH-47 HELICOPTER (A05101)
A05101	15	5	Less: Advance Procurement (PY)
A05101	16	5	CH-47 HELICOPTER (A05101)
A05111	8	4	AH-64 APACHE BLOCK IIIA REMAN (A05111)
A05111	8	4	Less: Advance Procurement (PY)
A05111	9	4	AH-64 APACHE BLOCK IIIA REMAN (A05111)
A05121	12	4	APACHE BLOCK II NEW BUILD (A05121)
A05133	10	4	AH-64 APACHE BLOCK IIIB NEW BUILD (A05133)
A05133	11	4	AH-64 APACHE BLOCK IIIB NEW BUILD (A05133)
A06500	17	5	HELICOPTER NEW TRAINING (A06500)
A11300	1	4	UTILITY F/W AIRCRAFT (A11300)
A50100	43	9	LAUNCHER, 2.75 ROCKET (A50100)
AA0005	13	4	UH-60 BLACKHAWK M MODEL (MYP) (AA0005)
AA0005	13	4	Less: Advance Procurement (PY)
AA0005	14	4	UH-60 BLACKHAWK M MODEL (MYP) (AA0005)
AA0050	41	9	AIR TRAFFIC CONTROL (AA0050)
AA0252	24	6	CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)
AA0252	24	6	Less: Advance Procurement (PY)
AA0270	25	6	UTILITY/CARGO AIRPLANE MODS (AA0270)
AA0480	27	6	UTILITY HELICOPTER MODS (AA0480)
AA0560	26	6	AIRCRAFT LONG RANGE MODS (AA0560)
AA0700	29	6	AIRBORNE AVIONICS (AA0700)
AA0705	44	9	AIRBORNE COMMUNICATIONS (AA0705)
AA0711	32	6	GATM Rollup (AA0711)
AA0712	30	6	NETWORK AND MISSION PLAN (AA0712)
AA0723	31	6	COMMS, NAV SURVEILLANCE (AA0723)
AA0950	34	8	SPARE PARTS (AIR) (AA0950)
AA6605	23	6	AH-64 MODS (AA6605)
AA6605	23	6	Less: Advance Procurement (PY)
AZ2000	21	6	GUARDRAIL MODS (MIP) (AZ2000)
AZ2001	22	6	MULTI SENSOR ABN RECON (MIP) (AZ2001)
AZ2200	28	6	KIOWA WARRIOR (AZ2200)

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SSN	LINE	PAGE	NOMENCLATURE
AZ3000	38	9	AVIONICS SUPPORT EQUIPMENT (AZ3000)
AZ3100	39	9	COMMON GROUND EQUIPMENT (AZ3100)
AZ3110	40	9	AIRCREW INTEGRATED SYSTEMS (AZ3110)
AZ3300	42	9	INDUSTRIAL FACILITIES (AZ3300)
AZ3504	35	9	AIRCRAFT SURVIVABILITY EQUIPMENT (AZ3504)
AZ3507	36	9	SURVIVABILITY CM (AZ3507)
AZ3517	37	9	CMWS (AZ3517)

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Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	27			2		2						29
Gross Cost	250.1			14.6		14.6	13.4	8.7	10.2	3.4		300.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	250.1			14.6		14.6	13.4	8.7	10.2	3.4		300.4
Initial Spares												
Total Proc Cost	250.1			14.6		14.6	13.4	8.7	10.2	3.4		300.4
Flyaway U/C												
Weapon System Proc U/C												10.4

Description:

The budget line covers the acquisition of Army fixed wing aircraft to include the procurement of utility fixed wing aircraft to support Operational Support Airlift (OSA) requirements, Special Electronic Mission Aircraft (SEMA), Special Mission Aircraft (Utility), and training. This budget line also provides for the acquisition of new commercial-off-the shelf, non-developmental fixed wing aircraft systems.

Justification:

FY 12 Base procurement dollars in the amount of \$14.572 million supports the procurement of (2) fixed wing aircraft and associated military modifications.

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis		Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: UTILITY F/W AIRCRAFT (A11300)					Weapon System Type:			Date: February 2011		
ACFT Cost Elements		ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
			Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
			\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Fixed Wing Aircraft								14572	2	7286				14572	2	7286	
FY12 Total								14572						14572			
Total:								14572						14572			

Exhibit P-5a, Budget Procurement History and Planning	Date: February 2011
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Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft	Weapon System Type:	P-1 Line Item Nomenclature: UTILITY F/W AIRCRAFT (A11300)								
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Fixed Wing Aircraft FY 2012	TBD	C / FFP	TBD	Dec 11	Jun 12	2	7286	Yes		TBD

REMARKS:

FY 12 / 13 BUDGET PRODUCTION SCHEDULE

P-1 ITEM NOMENCLATURE
UTILITY F/W AIRCRAFT (A11300)

Date:
February 2011

COST ELEMENTS						Fiscal Year 12											Fiscal Year 13											Later
MFR	FY	SERV	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12											Calendar Year 13											
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	

Fixed Wing Aircraft																													
1	FY 12	A	2	0	2			A							1				1									0	
Total					2										1				1										
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct			
1	TBD	1			1	Initial	0	2	7	9	
						Reorder	0	0	0	0	
						Initial					
						Reorder					
						Initial					
						Reorder					
						Initial					
						Reorder					
						Initial					
						Reorder					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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

P-1 Item Nomenclature
C-12 CARGO AIRPLANE (A02700)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty		3	5		1	1						9
Gross Cost		45.0	78.1		10.5	10.5						133.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1		45.0	78.1		10.5	10.5						133.6
Initial Spares												
Total Proc Cost		45.0	78.1		10.5	10.5						133.6
Flyaway U/C												
Weapon System Proc U/C				10.5		10.5						14.8

Description:

The C-12 fixed wing aircraft platform hosts a number of Army Intelligence, Surveillance and Reconnaissance/Reconnaissance Surveillance and Target Acquisition (ISR/RSTA) sensor systems that support irregular warfare in Overseas Contingency Operations (OCO). Included in those systems are Red Ridge, Guardrail Common Sensor (GRCS), Aerial Reconnaissance Multi Sensor (ARMS) (Iraq), the Medium Altitude Reconnaissance and Surveillance Systems (MARSS) (Iraq and Afghanistan), and Constant Hawk (Afghanistan). The ARMS system is composed of B-200 (C-12) aircraft equipped with imagery sensors, specialized COMINT sensors, and an array of line of sight and beyond line of sight communications equipment. The aircraft were fielded to Operation Iraqi Freedom (OIF) in FY06 and have been providing daily support to the (Task Force Observe, Detect Identify, Neutralize (TF ODIN) commander. Constant Hawk (CH) in Afghanistan is hosted on a King Air 350 (C-12) aircraft. CH is a persistent surveillance wide field of view airborne intelligence, surveillance and reconnaissance (AISR) system conducting Counter Improvised Explosive Device (IED) surveillance and forensic force protection mission. CH uses high resolution Electro Optic (EO) cameras mounted on manned aircraft to provide persistent surveillance of a designated Named Area of Interest (NAI). The MARRS aircraft are primarily King Air 300's (C-12 variant) equipped with numerous sensors to include imagery and communications intelligence (COMINT) payloads. They also include several line-of-sight and beyond line of sight communications systems and on board (manned) processing of the imagery and COMINT. The Enhanced MARSS (EMARSS) program provides additional MARSS systems based on a King Air 350 Extended Range (ER) aircraft. Laser Detection and Ranging (LIDAR) is a persistent surveillance AISR system.

Justification:

FY12 OCO procurement dollars in the amount of \$10.500 million supports aircraft procurement for one (1) aircraft to support ISR task force missions.

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: C-12 CARGO AIRPLANE (A02700)			Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
C-12 Aircraft																
Acft Procurement		45000	3	15000	52500	5	10500				10500	1	10500	10500	1	10500
Military Mods					25560											
Total:		45000			78060						10500			10500		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft		Weapon System Type:	P-1 Line Item Nomenclature: C-12 CARGO AIRPLANE (A02700)							
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
Acft Procurement										
FY 2010	Hawker Beech Wichita KS	SS / FFP	Redstone Arsenal, AL	Oct 10	Apr 12	3	15000	Yes		Jun 10
FY 2011	Hawker Beech Wichita KS	SS / FFP	Redstone Arsenal, AL	Feb 11	Aug 12	5	10500	Yes		Nov 10
FY 2012	Hawker Beech Wichita KS	SS / FFP	Redstone Arsenal, AL	Feb 12	Jan 13	1	10500	Yes		Nov 11

REMARKS:

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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

P-1 Item Nomenclature
AERIAL COMMON SENSOR (ACS) (MIP) (A02005)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	37			18		18	7	11				73
Gross Cost	729.8		88.5	539.6		539.6	242.8	504.3	243.7	122.7		2471.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	729.8		88.5	539.6		539.6	242.8	504.3	243.7	122.7		2471.3
Initial Spares												
Total Proc Cost	729.8		88.5	539.6		539.6	242.8	504.3	243.7	122.7		2471.3
Flyaway U/C												
Weapon System Proc U/C	19.7			30.0		30.0	34.7	45.8				33.9

Description:

The Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) is the Army's next generation C-12 based, direct support, manned airborne intelligence collection, processing, and targeting support system. EMARSS provides a persistent capability to detect, locate, classify/identify, and track surface targets with a high degree of timeliness and accuracy. EMARSS aircraft will be assigned to the U.S. Army Intelligence and Security Command's (INSCOM) Aerial Exploitation Battalions (AEB). EMARSS is an improvement over the existing Medium Altitude Reconnaissance and Surveillance System (MARSS) Quick Reaction Capability (QRC) in that it hosts an on board Distributed Common Ground System-Army (DCGS-A) capability, improved satellite communications, and improved aircraft performance.

EMARSS will consist of a commercial derivative aircraft equipped with an Electro-optical/Infrared (EO/IR) Full Motion Video (FMV) sensor, a Communications Intelligence (COMINT) collection system, an aerial precision geolocation (APG) system, tactical line-of-site (LOS) and beyond line-of-site (BLOS) communications suites, two DCGS-A enabled operator workstations and a self-protection suite.

EMARSS will operate as a single platform in direct support of tactical missions. EMARSS, working with and incorporating elements of the DCGS-A, will provide efficient response to Combat Forces Intelligence, Surveillance and Reconnaissance (ISR) tasking with centralized Processing, Exploitation & Dissemination (PED) of ISR products while simultaneously transmitting critical FMV and other intelligence products to engaged tactical forces.

Justification:

FY12 Base procurement dollars in the amount of \$539.574 million supports procurement of eighteen (18) EMARSS systems and spares. These systems support Global operations.

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: AERIAL COMMON SENSOR (ACS) (MIP) (A02005)			Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
EMARSS LRIP Systems					65200	3	21730	447300	18	24850				447300	18	24850
Software Licenses					1000			500						500		
Government Furnished Equipment (GFE)					6100			33000						33000		
Testing					4400			5000						5000		
ECPs					400			1300						1300		
Support Equipment					1600			1400						1400		
Initial Spares					3300			3900						3900		
Data								800						800		
Training Spt/Manuals/NET					700			20474						20474		
Interim Contractor Support & A/C CLS					300			11900						11900		
Gov't PM and Matrix					4250			12600						12600		
Other Government Agency Support					1233			1400						1400		
Tech Refresh																
Total:					88483			539574						539574		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft		Weapon System Type:	P-1 Line Item Nomenclature: AERIAL COMMON SENSOR (ACS) (MIP) (A02005)							
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
EMARSS LRIP Systems										
FY 2011	Boeing Company Ridley Park, PA	C / FPIF	Aberdeen, MD	Sep 11	Oct 12	3	21730	No	Jun 11	Jun 11
FY 2012	Boeing Company Ridley Park, PA	C / FPIF	Aberdeen, MD	Sep 12	Nov 13	18	24850	No	Jun 11	Jun 12

REMARKS:

COST ELEMENTS						Fiscal Year 14												Fiscal Year 15												Later
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 14												Calendar Year 15												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

EMARSS LRIP Systems																																	
1	FY 12	A	18	0	18		1	1	1	1	1	1	1	2	2	2	2	2	2														0
Total							18		1	1	1	1	1	1	2	2	2	2	2	2													
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP				

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Boeing Company, Ridley Park, PA	6	18	24		1	Initial	0	11	14	25	
							Reorder	0	0	0	0	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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

P-1 Item Nomenclature
MQ-1 UAV (A00005)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

357204 RDT&E, 375219 RDT&E, B00305 / B00302- OPA

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty		26	29	36		36	28	14				133
Gross Cost		439.7	506.3	658.8		658.8	676.8	500.3	0.1			2781.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1		439.7	506.3	658.8		658.8	676.8	500.3	0.1			2781.9
Initial Spares												
Total Proc Cost		439.7	506.3	658.8		658.8	676.8	500.3	0.1			2781.9
Flyaway U/C		13.3	13.1	16.0		16.0	21.2	18.6				82.1
Weapon System Proc U/C		16.9	17.5	18.3		18.3	24.2	35.7				20.9

Description:

The production MQ-1C Gray Eagle Unmanned Aircraft System (UAS) has changed based on new Army guidance from a Company sized unit equipped with (12) Unmanned Aircraft (UA) and associated support equipment to balanced Platoons, each capable of operating independently with (4) aircraft. Each will be equipped with a Standard Equipment Package (SEP), Ground Equipment and the following payloads: Electro-Optical/Infrared, Laser Range Finder/Laser Designator (EO/IR/LRF/LD), communications relay, and up to four (4) HELLFIRE Missiles. The SEP includes a communications relay package, Identify Friend or Foe (IFF) equipment and Air Traffic Control and tactical radios. The ground equipment per Platoon includes: two (2) Ground Control Stations (GCS-V3), two (2) Ground Data Terminals (GDTs), one (1) Satellite Communication (SATCOM) Ground Data Terminal (SGDT), one (1) Portable Ground Control Stations (PGCS), one (1) Portable Ground Data Terminal, an Automated Take Off and Landing System (ATLS), two (2) Tactical Automatic Landing Systems (TALS), and ground support equipment.

Justification:

FY2012 MQ-1C Gray Eagle Base funding of \$658.798 million procures (36) Aircraft, (18) Ground Control Stations (GCS-V3), (18) Ground Data Terminals (GDTs), nine (9) Satellite Communication (SATCOM) Ground Data Terminal (SGDT), nine (9) Portable Ground Control Stations (PGCS), nine (9) Portable Ground Data Terminal, nine (9) Automated Take Off and Landing Systems (ATLS), the SEP, and other ground support equipment.

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: MQ-1 UAV (A00005)			Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
AIRCRAFT Flyaway Costs																
MQ1 (SKY WARRIOR - ERMP)																
Aircraft		134687	26	5180.3	160178	29	5523.4	194578	36	5404.9				194578	36	5404.9
Ground Control Station (GCS)		49069			43856			76116						76116		
Other Hardware		94748			104351			109017						109017		
Engineering Change Order		16723			13014			6037						6037		
Non-Recurring Production		27560			18719			24683						24683		
Initial Spares		42593			40261			110118						110118		
Prime Contractor Cost		365380			380379			520549						520549		
GOVERNMENT																
Government Furnished Equipment (GFE)		19047			13539			35474						35474		
Program Management		6515			6626			20211						20211		
Test and Evaluation		16938			19684			19622						19622		
Transportation					44			30						30		
Other Government Agencies					33267											
Software					10286											
Training					42485			38011						38011		
NET Training								7170						7170		
Modifications		31770						7103						7103		
Other Weapons System								10628						10628		
Total ERMP Cost		439650			506310			658798						658798		
Subtotal Government Cost																
Total:		439650			506310			658798						658798		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft		Weapon System Type:	P-1 Line Item Nomenclature: MQ-1 UAV (A00005)								
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
MQ1 (SKY WARRIOR - ERMP)											
FY 2010	GENERAL ATOMICS / ASI SAN DIEGO, CA		SS / FPI	AMCOM	May 10	Dec 11	26	5180	Y	N/A	N/A
FY 2011	GENERAL ATOMICS / ASI SAN DIEGO, CA		SS / FPI	AMCOM	Mar 11	Dec 12	29	5523	Y	N/A	N/A
FY 2012	GENERAL ATOMICS / ASI SAN DIEGO, CA		SS / FPI	AMCOM	Mar 12	Dec 13	36	5405	Y	N/A	N/A

REMARKS:

FY 14 / 15 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE MQ-1 UAV (A00005)										Date: February 2011								
COST ELEMENTS					Fiscal Year 14										Fiscal Year 15										Later			
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 14										Calendar Year 15												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR		MAY	JUN	JUL
Aircraft																												
1	FY 10	A	26	26																							0	
1	FY 11	A	29	25	4	2	2																				0	
1	FY 12	A	36	0	36			3	3	3	3	3	3	3	3	3	3	3									0	
Total					40	2	2	3	3	3	3	3	3	3	3	3	3	3										
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS																	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct																				
1	GENERAL ATOMICS / ASI, SAN DIEGO, CA	12	12	36		1	Initial	8	5	21	26																	
							Reorder	8	5	21	26																	
							Initial																					
							Reorder																					
							Initial																					
							Reorder																					
							Initial																					
							Reorder																					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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

P-1 Item Nomenclature
RQ-11 (RAVEN) (A00010)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

375204 RDT&E, 375232 RDT&E, A00010 - APA

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty		876	312	1272		1272	318	45	45			2868
Gross Cost		84.3	37.6	70.8		70.8	24.0	9.6	10.9	10.9		248.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1		84.3	37.6	70.8		70.8	24.0	9.6	10.9	10.9		248.0
Initial Spares												
Total Proc Cost		84.3	37.6	70.8		70.8	24.0	9.6	10.9	10.9		248.0
Flyaway U/C		37.5	22.1	63.8		63.8	23.0	9.5	10.9	10.9		177.6
Weapon System Proc U/C		0.1	0.1	0.1		0.1	0.1	0.2	0.2			0.1

Description:

Description:

The Small Unmanned Aircraft System (SUAS), RQ-11B Raven, provides the ground maneuver battalions and below with situational awareness and enhanced force protection. The Raven B is a man portable unmanned aircraft system capable of handling a wide variety of Intelligence, Surveillance & Reconnaissance (ISR) tasks. The Raven B aircraft has a wingspan of 4.5 feet and weights 4.2 pounds. It is hand-launched and provides aerial observation, day or night, at line of sight ranges up to 10 kilometers. The aircraft has an endurance rate of 90 minutes and can deliver color or infrared imagery in real time to the ground control station and remote video terminal. Raven B obtained Milestone C approval on 6 Oct 05 and successfully completed IOT&E Jun 06. The program obtained Full Rate Production Authority on 5 Oct 06. A significant system upgrade completed in early FY2010 incorporated a Digital Data Link (DDL) which improved operational capability by: incorporating encryption capability allowing for secure data links, increasing the number of channels allowing for more air vehicles to be flown in a smaller area, extending the operational range through datalink relay capability, and integration of advanced digital payloads. The first DDL systems were fielded in December 2009. All new production are DDL enabled and are being procured to bring all non-DDL equipped systems to the DDL configuration.

Justification:

FY 2012 Base funding of \$70.8 million will procure 424 systems (1272 Air Vehicles); and other Hardware Costs including Ground Control Stations (GCS), Remote Video Terminal (RVT), Initial Spares Package (ISP), and Vampire License and Vampire Installation Trainers.

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: RQ-11 (RAVEN) (A00010)			Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
RAVEN - RQ-11																
PRIME CONTRACT SUPPORT																
Air Vehicles		10738	876	12	5513	312	18	16909	1272	13				16909	1272	13
Initial Spares Package (ISP)		4693		4693	2409			10083						10083		
Other System Hardware		8328		8328	4276			26943						26943		
Digital Data Link Retrofit		42076	628	67	17420	248	70									
Operator Training		2674			2719			3975						3975		
Engineering Change Orders																
PUMA		4800														
Subtotal Prime Contractor Costs		73309			32337			57910						57910		
GOVERNMENT SUPPORT																
Government Furnished Equipment (GFE)		1364		1364	700			2905						2905		
Program Management		8041			2880			5185						5185		
Technical		663			675			2152						2152		
Logistics		963			980			2610						2610		
Subtotal Government Cost		11031			5235			12852						12852		
Total Raven Cost																
Total:		84340			37572			70762						70762		

Exhibit P-5a, Budget Procurement History and Planning	Date: February 2011
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Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft	Weapon System Type:	P-1 Line Item Nomenclature: RQ-11 (RAVEN) (A00010)
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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
RAVEN - RQ-11										
FY 2010	AERO VIRONMENT SIMI VALLEY, CA	C / FFP	AMCOM	Dec 09	Feb 10	876	12	Y	N/A	N/A
FY 2011	AERO VIRONMENT SIMI VALLEY, CA	SS / FFP	AMCOM	Dec 10	Feb 11	312	18	Y	N/A	N/A
FY 2012	AERO VIRONMENT SIMI VALLEY, CA	SS / FFP	AMCOM	Dec 11	Feb 12	1272	13	Y	N/A	N/A
Total Raven Cost										

REMARKS:

FY 11 / 12 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE RQ-11 (RAVEN) (A00010)										Date: February 2011								
COST ELEMENTS					Fiscal Year 11										Fiscal Year 12										Later			
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11										Calendar Year 12												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR		MAY	JUN	JUL
Air Vehicles																												
1	FY 10	A	876	876																								0
1	FY 11	A	312	0	312			A		39	39	39	39	39	39	39												0
1	FY 12	A	1272	0	1272														A		159	159	159	159	159	159	159	0
Total					1584					39	39	39	39	39	39	39						159	159	159	159	159	159	159
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR 1	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct			
1	AERO VIRONMENT, SIMI VALLEY, CA	250	750	1500		1	Initial	0	0	0	0
							Reorder	0	3	4	7
							Initial				
							Reorder				
							Initial				
							Reorder				
							Initial				
							Reorder				

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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

P-1 Item Nomenclature
BCT UNMANNED AERIAL VEH (UAVS) INCR 1 (A00015)

Program Elements for Code B Items:

Code:

Other Related Program Elements:
0604662A (FC3)

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty			49									49
Gross Cost			44.2									44.2
Less PY Adv Proc												
Plus CY Adv Proc			0.0									0.0
Net Proc P1			44.2									44.2
Initial Spares												
Total Proc Cost			44.2									44.2
Flyaway U/C												
Weapon System Proc U/C			0.9									0.9

Description:

The XM 156 Class I Unmanned Aerial Vehicle (UAV) system has a vertical take-off and landing capability. It provides Reconnaissance, Surveillance, and Target Acquisition (RSTA) capabilities, it also has the ability to hover and stare for military operations on rural and urban terrain. The Class I UAV provides imagery data in order to recognize personnel and provide targeting information to the BCT Modernization network during day and night operations up to 1000 feet above ground level. The Class I system is carried in two custom Modular Lightweight Load-carrying Equipment (MOLLEs) and is air droppable with the soldier. This Class I UAV enhances the infantry squad's ability to effectively conduct operations in both a complex urban and rural terrain environments. It will provide the ground commander with the capability to effectively monitor the battlefield down to squad level in "Real Time", thus increasing his ability to make timely and decisive decisions. INC 1 meets Capability Development Document (CDD) Threshold requirements.

Justification:

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: BCT UNMANNED AERIAL VEH (UAVS) INCR 1 (A00015)			Weapon System Type:			Date: February 2011					
ACFT Cost Elements			ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total			
			CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	
				\$000	Each	\$000	\$000				\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
BCT Unmanned Aerial Vehicles (UAVs)																			
Non Recurring Production						343													
Recurring Production Costs																			
Class I UAS																			
Platform						12952	49	264											
C4ISR						937	49	19											
Projected Attrition						9837	37	266											
Common Controller																			
Recurring Production Support Costs																			
Production Support						6108													
Fielding Support						4477													
P-Form Adjustment to Reflect Requirement						8812													
Less: PY Adv Proc - Rqmnt																			
Plus: CY Adv Proc - Rqmnt						740													
Total:						44206													

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature HELICOPTER, LIGHT UTILITY (LUH) (A05001)
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Program Elements for Code B Items:	Code:			Other Related Program Elements:								To Complete	Total Prog
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016			
Proc Qty	128	54	50	39		39	34	26	14			345	
Gross Cost	744.4	325.0	305.3	250.4		250.4	220.5	217.8	182.2	54.5	11.8	2311.9	
Less PY Adv Proc													
Plus CY Adv Proc													
Net Proc P1	744.4	325.0	305.3	250.4		250.4	220.5	217.8	182.2	54.5	11.8	2311.9	
Initial Spares	0.6											0.6	
Total Proc Cost	745.0	325.0	305.3	250.4		250.4	220.5	217.8	182.2	54.5	11.8	2312.5	
Flyaway U/C													
Weapon System Proc U/C	5.8	6.0	6.1	6.4		6.4	6.5	8.4	13.0			6.7	

P-40 Breakdown										
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016
Active	Qty	24	16	4	0	4	11	13	3	0
	Gross Cost	144460.0	106103.0	35470.0	0.0	35470.0	82698.0	131195.0	82921.0	54455.0
National Guard	Qty	30	34	35	0	35	23	13	11	0
	Gross Cost	180574.0	199169.0	214945.0	0.0	214945.0	137794.0	86599.0	99244.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	54	50	39	0	39	34	26	14	0
	Gross Cost	325034	305272	250415	0	250415	220492	217794	182165	54455

Description:
The Light Utility Helicopter, UH-72A LAKOTA will provide general aviation support for Continental United States (CONUS) based Table of Distribution and Allowance (TDA) and Table of Organization and Equipment (TOE) aviation units in the active and reserve components. The UH-72A platform will provide the flexibility to respond to Homeland Security (HLS) requirements, conduct civil search and rescue operations, support damage assessment, support test and training centers, perform generating force missions, augment the HH-60 Medical Evacuation (MEDEVAC) aircraft, and provide support to CONUS counterdrug operations. The UH-72A will conduct general support utility helicopter missions and execute tasks as part of an integrated effort with other joint services, government agencies, and non-governmental organizations. The UH-72A provides time-sensitive transport of supplies or key personnel, air mobility to assist civil authorities through the execution of search and rescue or disaster relief operations, advanced warning/detection of external threats to include threats to our borders, augmentation of air ambulance capabilities, and limited command and control operations in the conduct of HLS. The LUH program is currently in full rate production.

Justification:
FY 2012 Base funding supports aircraft procurement, fielding, engineering services, training, program office support, and modifications for 39 UH-72A aircraft.

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: HELICOPTER, LIGHT UTILITY (LUH) (A05001)			Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Procurement Hardware Costs																
Airframes/Includes non-recurring		272604	54	5048	263233	50	5265	209615	39	5375				209615	39	5375
B Kits (MEDEVAC & Hoist)		6587	32	206	2983	14	213									
Engineering Changes		23797			12231			13424						13424		
Subtotal Hardware Cost		302988			278447			223039						223039		
Flyaway Support Costs																
System Engineering & Program Management		7109			7382			7552						7552		
System Test & Evaluation																
Engineering Services		2385			2467			2551						2551		
Subtotal Flyaway Support Costs		9494			9849			10103						10103		
Total Flyaway		312482			288296			233142						233142		
Other Weapon System Cost																
Procedural Trainers																
Fielding		12552			16976			17273						17273		
Other Weapon System Requirements																
Subtotal Other Weapon System Cost		12552			16976			17273						17273		
Total Procurement Cost		325034			305272			250415						250415		
Gross P-1 End Cost																
Less: Prior Year Adv Proc																
Net P-1 Full Funding Cost																
Plus: P-1 CY Adv Proc																
Other Non P-1 Costs																
Total:		325034			305272			250415						250415		

Exhibit P-5a, Budget Procurement History and Planning	Date: February 2011
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Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft	Weapon System Type:	P-1 Line Item Nomenclature: HELICOPTER, LIGHT UTILITY (LUH) (A05001)
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WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Airframes/Includes non-recurring										
FY 2010	EADS-NA Columbus, MS	C / FFP	EADS-NA Columbus, MS	Dec 09	Sep 10	54	5048			
FY 2011	EADS-NA Columbus, MS	C / FFP	EADS-NA Columbus, MS	Dec 10	Sep 11	50	5265			
FY 2012	EADS-NA Columbus, MS	C / FFP	EADS-NA Columbus, MS	Dec 11	Sep 12	39	5375			

REMARKS:

FY 10 / 11 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE HELICOPTER, LIGHT UTILITY (LUH) (A05001)										Date: February 2011										
COST ELEMENTS						Fiscal Year 10										Fiscal Year 11														
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 10										Calendar Year 11										Later				
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP
Airframes/Includes non-recurring																														
1	FY 09	A	25	0	25																							25		
1	FY 09	NG	19	0	19																							19		
1	FY 09	TOT	44	0	44	3	2	3	3	3	5	5	5	5	5	4	1											0		
1	FY 10	A	24	0	24																							24		
1	FY 10	NG	30	0	30																							30		
1	FY 10	TOT	54	0	54			A								4	5	5	5	4	4	5	5	4	4	5	4	0		
1	FY 11	A	11	0	11																							11		
1	FY 11	NG	39	0	39																							39		
1	FY 11	TOT	50	0	50													A									4	46		
1	FY 12	A	5	0	5																							5		
1	FY 12	NG	34	0	34																							34		
1	FY 12	TOT	39	0	39																							39		
Total					374	3	2	3	3	3	5	5	5	5	5	4	5	5	5	5	4	4	5	5	4	4	5	4	4	272
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	EADS-NA, Columbus, MS	23	52	60		1	Initial	0	9	5	14	
							Reorder	0	2	9	11	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 12 / 13 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE HELICOPTER, LIGHT UTILITY (LUH) (A05001)										Date: February 2011									
COST ELEMENTS						Fiscal Year 12										Fiscal Year 13													
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12										Calendar Year 13										Later			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
Airframes/Includes non-recurring																													
1	FY 09	A	25	0	25																							25	
1	FY 09	NG	19	0	19																							19	
1	FY 09	TOT	44	44																								0	
1	FY 10	A	24	0	24																							24	
1	FY 10	NG	30	0	30																							30	
1	FY 10	TOT	54	54																								0	
1	FY 11	A	11	0	11																							11	
1	FY 11	NG	39	0	39																							39	
1	FY 11	TOT	50	4	46	4	4	4	4	4	5	4	5	4	4	4												0	
1	FY 12	A	5	0	5																							5	
1	FY 12	NG	34	0	34																							34	
1	FY 12	TOT	39	0	39			A								4	4	4	3	3	3	3	3	3	3	3	3	0	
Total					272	4	4	4	4	4	5	4	5	4	4	4	4	4	3	3	3	3	3	3	3	3	3	187	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	EADS-NA, Columbus, MS	23	52	60		1	Initial	0	9	5	14	
							Reorder	0	2	9	11	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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

P-1 Item Nomenclature
AH-64 APACHE BLOCK III (A05111)

Program Elements for Code B Items:

Code:

Other Related Program Elements:
273744D17

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty		8	16	19		19	40	24	43	53	431	634
Gross Cost		195.4	551.7	411.0		411.0	699.1	431.4	680.9	804.5	6482.2	10256.2
Less PY Adv Proc			57.9				192.8	83.7	144.6	155.5	1181.3	1815.7
Plus CY Adv Proc		69.3		192.8		192.8	83.7	144.6	155.5	179.0	1002.3	1827.1
Net Proc P1		264.6	493.8	603.8		603.8	590.0	492.4	691.8	827.9	6303.2	10267.6
Initial Spares												
Total Proc Cost		264.6	493.8	603.8		603.8	590.0	492.4	691.8	827.9	6303.2	10267.6
Flyaway U/C												
Weapon System Proc U/C		33.1	30.9	31.8		31.8	14.8	20.5	16.1	15.6	14.6	16.2

Description:

Apache Block IIIA (AB3A) REMAN is a result of the continuing evolution process to keep the Apache fleet viable on the battlefield. AB3A is the long-term sustainment effort for the fleet while meeting current and future operational capability requirements. The AB3A program is the remanufacture of the aging Apache fleet integrating proven technologies into a mature weapon system platform. AB3A will add significant combat capability while addressing obsolescence issues to ensure the aircraft remains a realistic combat multiplier beyond 2025. AB3A will address current system shortfalls by integrating: Unmanned Aircraft System (UAS) Level III - IV Control Capability, Improved Situational Awareness, an Upgraded Communications Suite, Improved Drive and Propulsion Systems, Improved Targeting Capability, Increased Computer Processing Capability and Speed, Improved Navigation Systems, and Improved Diagnostics and Maintainability. These system improvement requirements were generated by operational shortfalls identified during real world combat missions. The AB3A Modernization is an incremental integration of block modifications providing the capabilities for the Longbow Apache to transition to the Future Modular Force, to increase survivability, and reduce the logistics footprint. AB3A satisfies the updated Longbow Apache Capability Production Document (CPD) mandates for modernization. AB3 enters the fleet in 2012.

Justification:

FY12 Base procurement dollars in the amount of \$603.769 Million supports Advance Procurement, 19 Low Rate Initial Production (LRIP) AH-64 Apache Block IIIA Reman aircraft and associated support.

Post Nunn McCurdy re-certification (June 2010), this program was restructured from the single AH-64 Block III (A05111) into two separate programs, AH-64 Apache Block IIIA Reman (A05122) and AH-64 Apache Block IIIB New Build (A05133).

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: AH-64 APACHE BLOCK III (A05111)			Weapon System Type:			Date: February 2011				
ACFT Cost Elements			FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total			
			ID															
			CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost			
				\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000			
APACHE BLOCK III (AB3) Flyaway Costs																		
Airframes				48844	8	6106	91486	16	5718	175588	19	9241				175588	19	9241
Engines				8248	16	516	16776	32	524	23732						23732		
GFE				8611			24827			75316								
Engineering Change Orders (ECO)				1089			2016			2231						2231		
Other Costs				3050			4576											
Non-Recurring Costs				66740			100880			120539						120539		
Support Cost																		
Support Equipment				163			302			335						335		
PDSS (Software)							8045			7401						7401		
Other Costs				21247			77880			149144						149144		
Initial Spares																		
Initial Spares				2791			5893			17869						17869		
Subtotal Costs				160783			332681			572155					496839			
WRA \$ to be Reprogrammed				34600														
Advance Procurement				69253			161150			192764						192764		
Advance Procurement Credit										- 161150						- 161150		
Total:				264636			493831			603769					528453			

Exhibit P-5a, Budget Procurement History and Planning	Date: February 2011
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Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft	Weapon System Type:	P-1 Line Item Nomenclature: AH-64 APACHE BLOCK III (A05111)
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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
Airframes										
FY 2010	The Boeing Company Mesa, AZ	SS / FFP	AMCOM	Sep 10	Oct 11	8	6106	N		Jun 08
FY 2011	The Boeing Company Mesa, AZ	SS / FFP	AMCOM	Mar 11	Mar 12	16	5718	N		Jun 08
FY 2012	The Boeing Company Mesa, AZ	SS / FFP	AMCOM	Oct 11	Oct 12	19	9241	N		Jun 08

REMARKS:

FY 12 / 13 BUDGET PRODUCTION SCHEDULE

P-1 ITEM NOMENCLATURE
AH-64 APACHE BLOCK III (A05111)

Date:
February 2011

COST ELEMENTS						Fiscal Year 12												Fiscal Year 13												Later
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12												Calendar Year 13												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Airframes																														
1	FY 10	A	8	0	8	1	1	2	2	2																		0		
1	FY 10	ANG	0	0																								0		
1	FY 10	AR	0	0																								0		
1	FY 11	A	16	0	16					2	1	2	2	3	3	3												0		
1	FY 11	ANG	0	0																								0		
1	FY 11	AR	0	0																								0		
1	FY 12	A	19	0	19												3	1	1	1	2	2	2	2	2	1	1	1	0	
1	FY 12	ANG	0	0																								0		
1	FY 12	AR	0	0																								0		
Total					43	1	1	2	2	2	2	1	2	2	3	3	3	3	1	1	1	2	2	2	2	2	1	1	1	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			1	Initial				After 1 Oct
1	The Boeing Company, Mesa, AZ	4	8	12		1	0	11	13	24		
							0	6	12	18		

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature AH-64 APACHE BLOCK III (A05111)
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Program Elements for Code B Items:			Code:		Other Related Program Elements: 273744D17							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost			57.9									57.9
Less PY Adv Proc			57.9									57.9
Plus CY Adv Proc		69.3		192.8		192.8	83.7	144.6	155.5	179.0	1002.3	1827.1
Net Proc P1		69.3		192.8		192.8	83.7	144.6	155.5	179.0	1002.3	1827.1
Initial Spares												
Total Proc Cost		69.3		192.8		192.8	83.7	144.6	155.5	179.0	1002.3	1827.1
Flyaway U/C												
Weapon System Proc U/C												

Description:
Apache Block IIIA (AB3A) REMAN is a result of the continuing evolution process to keep the Apache fleet viable on the battlefield. AB3A is the long-term sustainment effort for the fleet while meeting current and future operational capability requirements. The AB3A program is the remanufacture of the aging Apache fleet integrating proven technologies into a mature weapon system platform. AB3A will add significant combat capability while addressing obsolescence issues to ensure the aircraft remains a realistic combat multiplier beyond 2025.

Justification:
FY12 Base procurement dollars in the amount of \$192.764 Million supports Advance Procurement items in support of the AB3A REMAN program.

Post Nunn McCurdy re-certification (June 2010), this program was restructured from the single AH-64 Block III (A05111) into two separate programs, AH-64 Apache Block IIIA Reman (A05122) and AH-64 Apache Block IIIB New Build (A05133).

All COMPO 1 Active

Advance Procurement Requirements Analysis-Funding (P-10A)				First System Award Date:	First System Completion Date:	Date: February 2011						
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature / Weapon System: AH-64 APACHE BLOCK III							
(\$ in Millions)												
	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	To Comp	Total
End Item Quantity												
Apache Block III - Reman	12	12		69.3		192.8	83.7	144.6	155.5	179.0	1002.3	1827.2
Total Advance Procurement			0.0	69.3	0.0	192.8	83.7	144.6	155.5	179.0	1002.3	1827.2

Advance Procurement Requirements Analysis-Funding (P-10B)	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Line Item Nomenclature / Weapon System: AH-64 APACHE BLOCK III
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(\$ in Millions)									
	PLT (mos)	Quantity Per Assembly	Unit Cost	2012			2013		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
Apache Block III - Reman	12			19.0		192.8	40.0		83.7
Total Advance Procurement						192.8			83.7

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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

P-1 Item Nomenclature
AH-64 BLOCK III NEW BUILD (A05133)

Program Elements for Code B Items:

Code:

Other Related Program Elements:
273744D17

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty					1	1	8	28	13	7		57
Gross Cost					35.5	35.5	277.8	1155.3	656.1	227.9		2352.6
Less PY Adv Proc							104.3	374.5	276.8	26.4		781.9
Plus CY Adv Proc				104.3		104.3	374.5	276.8	26.4			781.9
Net Proc P1				104.3	35.5	139.8	548.0	1057.7	405.7	201.5		2352.6
Initial Spares												
Total Proc Cost				104.3	35.5	139.8	548.0	1057.7	405.7	201.5		2352.6
Flyaway U/C												
Weapon System Proc U/C					35.5	139.8	68.5	37.8	31.2	28.8		41.3

Description:

Apache Block IIIB New Build (AB3B) is a result of the continuing evolution process to keep the Apache fleet viable on the battlefield. AB3 is the long-term sustainment effort for the fleet while meeting current and future operational capability requirements. AB3B New Build will add significant combat capability while addressing obsolescence issues to ensure the aircraft remains a realistic combat multiplier beyond 2025.

Justification:

AB3B New Build program will provide 56 aircraft to support an increase in the training base capacity, and establish a new heavy Active Component Combat Aviation Brigade.

FY 12 Base procurement dollars in the amount of \$104.263 Million supports Advance Procurement items and associated support.

FY12 OCO procurement dollars in the amount of \$35.500 Million supports one (1) AH-64 Block III New Build.

Post Nunn McCurdy re-certification (June 2010), this program was restructured from the single AH-64 Block III (A05111) into two separate programs, AH-64 Apache Block IIIA Reman (A05122) and AH-64 Apache Block IIIB New Build (A05133).

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: AH-64 BLOCK III NEW BUILD (A05133)			Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AB3B NEW BUILD Flyaway Costs																
CFE											30210			30210		
GFE											2694			2694		
Engineering Change Orders (ECO)											149			149		
Non-Recurring Costs																
SUPPORT COSTS																
Support Equipment											1728			1728		
Other Costs (Training)																
INITIAL SPARES																
Initial Spares											719			719		
Subtotal											35500			35500		
Advance Procurement								104263						104263		
Advance Procurement Credit																
Total:								104263			35500			139763		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft		Weapon System Type:	P-1 Line Item Nomenclature: AH-64 BLOCK III NEW BUILD (A05133)								
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
CFE FY 2012	The Boeing Company Mesa		SS / FFP	AMCOM	Jan 13	Jan 14			N		Aug 11

REMARKS: FY13 -- Lot 3 Full Rate Production (8 aircraft)

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature AH-64 BLOCK III NEW BUILD (A05133)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: 273744D17
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	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc				104.3		104.3	374.5	276.8	26.4			781.9
Net Proc P1				104.3		104.3	374.5	276.8	26.4			781.9
Initial Spares												
Total Proc Cost				104.3		104.3	374.5	276.8	26.4			781.9
Flyaway U/C												
Weapon System Proc U/C												

Description:
Apache Block IIIB New Build (AB3B) is a result of the continuing evolution process to keep the Apache fleet viable on the battlefield. AB3 is the long-term sustainment effort for the fleet while meeting current and future operational capability requirements. AB3B New Build will add significant combat capability while addressing obsolescence issues to ensure the aircraft remains a realistic combat multiplier beyond 2025.

Justification:
FY12 Base procurement dollars in the amount of \$104.263 Million supports Advance Procurement items in support of the AB3B New Build program.

Post Nunn McCurdy re-certification (June 2010), this program was restructured from the single AH-64 Block III (A05111) into two separate programs, AH-64 Apache Block IIIA Reman (A05122) and AH-64 Apache Block IIIB New Build (A05133).

Advance Procurement Requirements Analysis-Funding (P-10A)				First System Award Date:	First System Completion Date:	Date: February 2011						
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature / Weapon System: AH-64 BLOCK III NEW BUILD							
(\$ in Millions)												
	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	To Comp	Total
End Item Quantity												
Apache Block III New Build	12	0				104.3	374.5	276.8	26.4			782.0
Total Advance Procurement			0.0	0.0	0.0	104.3	374.5	276.8	26.4	0.0	0.0	782.0

Advance Procurement Requirements Analysis-Funding (P-10B)	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Line Item Nomenclature / Weapon System: AH-64 BLOCK III NEW BUILD
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(\$ in Millions)									
	PLT (mos)	Quantity Per Assembly	Unit Cost	2012			2013		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
Apache Block III New Build	12					104.3	8.0		374.5
Total Advance Procurement						104.3			374.5

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

 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:
 0203744A/Project 504

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	875	81	74	71	4	75	71	71	65	74	533	1919
Gross Cost	4018.5	1519.3	1393.3	1426.2	72.0	1498.2	1394.3	1391.5	1296.1	1506.3	7761.8	21779.3
Less PY Adv Proc	2913.7	134.5	102.2	100.5		100.5	197.4	144.4	148.1	176.1	1120.4	5037.3
Plus CY Adv Proc	3051.7	98.4	100.5	199.8		199.8	152.5	144.0	169.7	193.3	927.0	5037.0
Net Proc P1	4156.5	1483.2	1391.6	1525.4	72.0	1597.4	1349.4	1391.2	1317.7	1523.5	7568.5	21779.0
Initial Spares	421.3											421.3
Total Proc Cost	4577.8	1483.2	1391.6	1525.4	72.0	1597.4	1349.4	1391.2	1317.7	1523.5	7568.5	22200.3
Flyaway U/C												
Weapon System Proc U/C	4.8	18.3	18.8	21.5	18.0	21.3	19.0	19.6	20.3	20.6	14.2	11.3

Description:

The UH-60 BLACK HAWK is a twin engine, single rotor helicopter that is designed to support the Army's air mobility doctrine for employment of land forces 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:

FY 12 Base funding in the amount of \$1525.447 million will procure 71 aircraft.

FY 12 OCO funding in the amount of \$72.0 million will procure 4 additional UH aircraft and the associated mission equipment package (MEP).

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature UH-60 BLACK HAWK (MYP) (A05002)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: 0203744A/Project 504
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	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	872	81	74	71	4	75	71	71	65	74	533	1916
Gross Cost	3979.0	1519.3	1393.3	1426.2	72.0	1498.2	1394.3	1391.5	1296.1	1506.3	7761.8	21739.8
Less PY Adv Proc	2913.7	134.5	102.2	100.5		100.5	197.4	144.4	148.1	176.1	1120.4	5037.3
Plus CY Adv Proc	3051.7	98.4	100.5	199.8		199.8	152.5	144.0	169.7	193.3	927.0	5037.0
Net Proc P1	4117.0	1483.2	1391.6	1525.4	72.0	1597.4	1349.4	1391.2	1317.7	1523.5	7568.5	21739.5
Initial Spares	421.3											421.3
Total Proc Cost	4538.3	1483.2	1391.6	1525.4	72.0	1597.4	1349.4	1391.2	1317.7	1523.5	7568.5	22160.8
Flyaway U/C												
Weapon System Proc U/C	4.7	18.3	18.8	21.5	18.0	21.3	19.0	19.6	20.3	20.6	14.2	11.3

P-40 Breakdown											
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	
Active	Qty	71	72	67	4	71	35	53	32	53	
	Gross Cost	1300809.0	1351998.0	1444100.0	72000.0	1516100.0	703121.0	1056655.0	668008.0	1093889.0	
National Guard	Qty	10	2	4	0	4	36	18	27	21	
	Gross Cost	182400.0	39600.0	81347.0	0.0	81347.0	646239.0	334495.0	509994.0	429649.0	
Reserve	Qty	0	0	0	0	0	0	0	6	0	
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	139692.0	0.0	
Total	Qty	81	74	71	4	75	71	71	65	74	
	Gross Cost	1483209	1391598	1525447	72000	1597447	1349360	1391150	1317694	1523538	

Description:
The UH-60 BLACK HAWK is a twin engine, single rotor helicopter that is designed to support the Army's air mobility doctrine for employment of land forces 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:
FY 12 Base funding in the amount of \$1525.447 million will procure 71 aircraft.
FY 12 OCO funding in the amount of \$72.0 million will procure 4 additional UH aircraft and the associated mission equipment package (MEP).

Exhibit P-5, Weapon ACFT Cost Analysis			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: February 2011		
ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Aircraft Flyaway Costs																
Airframes/CFE		1037928	81	12814	913851	74	12349	896090	71	12621	50484	4	12621	946574	75	12621
Engines/Accessories		116163	162	717	104070	148	703	101537	142	715	5721	8	715	107258	150	715
Avionics (GFE)		47602			51717			51058			5741			56799		
Other GFE		43534			40013			26410			7394			33804		
Armament																
ECO (All FLYAWAY Components)		36971			32673			35559			2660			38219		
Other Costs (Mission Equipment)		68345			81177			72198						72198		
Tooling Equipment		3993			1325			27125						27125		
Other Nonrecurring Cost		20980			29849			23746						23746		
Total FLYAWAY		1375516			1254675			1233723			72000			1305723		
Support Cost																
Airframe PGSE																
Engine PGSE																
Peculiar Training Equipment		44567			57227			80606						80606		
Publications/Tech Data		3132			3556			3096						3096		
PM Administration		39337			37774			47312						47312		
Fielding		56752			40064			61461						61461		
Subtotal Support Cost		143788			138621			192475						192475		
Gross P-1 End Item Cost		1519304			1393296			1426198			72000			1498198		
Less: Prior Year Adv Proc		- 134530			- 102230			- 100532						- 100532		
Net P-1 Full Funding Cost		1384774			1291066			1325666			72000			1397666		
Plus: P-1 CY Adv Proc		98435			100532			199781						199781		
Initial Spares																
Total:		1483209			1391598			1525447			72000			1597447		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

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 \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date	
Airframes/CFE											
FY 2010	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Jan 10	Jul 10	49	12356	Yes		May-05	
FY 2010	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Jan 10	Feb 11	21	12356	Yes		May-05	
FY 2010	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Feb 10	Jun 11	11	12356	Yes		May-05	
FY 2011	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Jan 11	Jul 11	24	12349	Yes		May-05	
FY 2011	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Jan 11	Jan 12	23	12349	Yes		May-05	
FY 2011	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Feb 11	Apr 12	27	12349	Yes		May-05	
FY 2012	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Jan 12	Jul 12	21	12621	Yes		Jan-10	
FY 2012	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Jan 12	Jul 12	15	12621	Yes		Jan-10	
FY 2012	Sikorsky Aircraft Stratford CT	SS / FP	AMCOM	Feb 12	Jan 13	39	12621	Yes		Jan-10	

REMARKS: The FY 2007 contract is the first year of a five (5) year multi-year, multi-service contract for the procurement of H-60Ms. FY 2012 begins the next five (5) year multi-year, multi-service contract for the H-60Ms.

Delivery schedules appear to extend beyond the 12 month period for the following reasons:

Yearly procurements consist of UH-60M, HH-60M and supplemental aircraft. Each of the three are awarded on different contract line items. The UH-60M has an 18 month lead time while the HH-60M has a 24 month lead time. The supplemental aircraft do not have advanced procurement dollars associated with them so the lead times stay the same just have a different start point. While each of these efforts deliver all of their aircraft within a 12 month span, they do not deliver within the same 12 month time period.

FY 09 / 10 BUDGET PRODUCTION SCHEDULE

P-1 ITEM NOMENCLATURE
UH-60 BLACK HAWK (MYP) (A05002)

Date:
February 2011

COST ELEMENTS						Fiscal Year 09												Fiscal Year 10												Later		
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 09												Calendar Year 10														
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
Airframes/CFE																																
1	FY 09	A	52	0	52																							52				
1	FY 09	NG	12	0	12																							12				
1	FY 09	AR	2	0	2																							2				
1	FY 09	TOT	66	0	66				A						5	4	5	8	7	6	4	5	3	4	5	4		6				
1	FY 10	A	64	0	64																							64				
1	FY 10	NG	10	0	10																							10				
1	FY 10	AR	7	0	7																							7				
1	FY 10	TOT	81	0	81															A						2	4	5	70			
1	FY 11	A	72	0	72																							72				
1	FY 11	NG	2	0	2																							2				
1	FY 11	TOT	74	0	74																							74				
1	FY 12	A	65	0	65																							65				
1	FY 12	NG	10	0	10																							10				
1	FY 12	TOT	75	0	75																							75				
1	FY 09	NA	50	0	50															2	3	2	2	2	2	2	2	2	2	3	3	27
1	FY 10	NA	42	0	42																									1	3	38
1	FY 11	NA	42	0	42																											42
1	FY 12	NA	42	0	42																											42
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			1	Initial				After 1 Oct
1	Sikorsky Aircraft, Stratford CT	18	96	150		1	Initial	8	3	6	9	
							Reorder	0	3	6	9	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 11 / 12 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE UH-60 BLACK HAWK (MYP) (A05002)										Date: February 2011									
COST ELEMENTS						Fiscal Year 11										Fiscal Year 12													
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11										Calendar Year 12										Later			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG
Airframes/CFE																													
1	FY 09	A	52	0	52																							52	
1	FY 09	NG	12	0	12																							12	
1	FY 09	AR	2	0	2																							2	
1	FY 09	TOT	66	60	6		1	3	1	1																		0	
1	FY 10	A	64	0	64																							64	
1	FY 10	NG	10	0	10																							10	
1	FY 10	AR	7	0	7																							7	
1	FY 10	TOT	81	11	70	5	4	3	4	5	7	7	9	12	4	3	3	3	1									0	
1	FY 11	A	72	0	72																							72	
1	FY 11	NG	2	0	2																							2	
1	FY 11	TOT	74	0	74				A					3	3	3	2	5	6	8	7	7	8	7	9	6		0	
1	FY 12	A	65	0	65																							65	
1	FY 12	NG	10	0	10																							10	
1	FY 12	TOT	75	0	75															A					6	6	6	57	
1	FY 09	NA	50	23	27	3	2	3	3	3	4	4	3	2														0	
1	FY 10	NA	42	4	38	2	2	1	1	2	1	2	2	2	2	2	2	3	3	3	3	3					0		
1	FY 11	NA	42	0	42									1	2	1	2	2	1	1	2	1	5	4	3	2	3	9	
1	FY 12	NA	42	0	42																				2	1	2	37	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR 1	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct			
1	Sikorsky Aircraft, Stratford CT	18	96	150			8	3	6	9	
							0	3	6	9	

FY 11 / 12 BUDGET PRODUCTION SCHEDULE

P-1 ITEM NOMENCLATURE
UH-60 BLACK HAWK (MYP) (A05002)

Date:
February 2011

COST ELEMENTS						Fiscal Year 11														Fiscal Year 12														Later
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11														Calendar Year 12														
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP					
Total						670	10	9	10	9	11	12	13	14	16	10	10	9	9	11	10	12	12	11	13	11	12	16	10	11	399			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP					

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Sikorsky Aircraft, Stratford CT	18	96	150		1	Initial	8	3	6	9	
							Reorder	0	3	6	9	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

COST ELEMENTS						Fiscal Year 13												Fiscal Year 14												Later
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 13												Calendar Year 14												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Airframes/CFE																																				
1	FY 09	A	52	0	52																														52	
1	FY 09	NG	12	0	12																															12
1	FY 09	AR	2	0	2																															2
1	FY 09	TOT	66	66																																0
1	FY 10	A	64	0	64																															64
1	FY 10	NG	10	0	10																															10
1	FY 10	AR	7	0	7																															7
1	FY 10	TOT	81	81																																0
1	FY 11	A	72	0	72																															72
1	FY 11	NG	2	0	2																															2
1	FY 11	TOT	74	74																																0
1	FY 12	A	65	0	65																															65
1	FY 12	NG	10	0	10																															10
1	FY 12	TOT	75	18	57	6	6	5	6	6	7	7	7	7																						0
1	FY 09	NA	50	50																																0
1	FY 10	NA	42	42																																0
1	FY 11	NA	42	33	9	3	3	3																												0
1	FY 12	NA	42	5	37	1	2	1	4	3	4	3	4	3	2	2	2	2	2	2															0	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP							

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			1	Prior 1 Oct / After 1 Oct				
								Initial				Reorder
1	Sikorsky Aircraft, Stratford CT	18	96	150		1	8	3	6	9		

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature UH-60 BLACKHAWK (MYP) (AA0005)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: 0203744A/ Project 504
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	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc	3051.7	98.4	100.5	199.8		199.8	152.5	144.0	169.7	193.3	927.0	5037.0
Net Proc P1	3051.7	98.4	100.5	199.8		199.8	152.5	144.0	169.7	193.3	927.0	5037.0
Initial Spares												
Total Proc Cost	3051.7	98.4	100.5	199.8		199.8	152.5	144.0	169.7	193.3	927.0	5037.0
Flyaway U/C												
Weapon System Proc U/C												

Description:
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 (in addition to the engine) currently requiring advance procurement includes the Improved Hover Infrared Suppressor Subsystem (HIRSS) as well as numerous communication, navigation, and Aircraft Survivability Equipment items procured by the Communications and Electronics Command (CECOM).

Justification:
FY 2012 procures long lead and Economic Order Quantities (EOQ) items such as T700-GE-701D engines and avionics components for the FY12-FY16 multiyear contract.

Advance Procurement Requirements Analysis-Funding (P-10A)				First System Award Date:	First System Completion Date:	Date: February 2011						
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)	When Rqd (mos)	Pr Yrs	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	To Comp	Total
End Item Quantity			164.0	70.0	47.0	36.0	51.0	71.0	65.0	74.0	533.0	1111.0
CFE Airframe	18	6	2786.5	30.8	42.9	130.8	54.9	53.2	64.5	89.2	80.9	3333.7
Engines	13	3	191.3	48.7	42.4	54.7	77.4	72.1	83.5	82.6	671.5	1324.2
Avionics	0	3	41.3	9.7	7.6	10.9	15.4	14.3	16.6	16.4	133.3	265.5
Auxiliary Power Unit	6	3	11.6	3.0	2.2	3.4	4.8	4.4	5.1	5.1	41.3	80.9
Armored Crew Seat	6	3										
Hover Infrared Suppressor	14	3	19.1	6.2	5.4							30.7
Elastomeric Bearings	10	3										
Miscellaneous	0	3	1.9									1.9
Total Advance Procurement			3051.7	98.4	100.5	199.8	152.5	144.0	169.7	193.3	927.0	5036.9

Advance Procurement Requirements Analysis-Funding (P-10B)	Date: February 2011
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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)									
	PLT (mos)	Quantity Per Assembly	Unit Cost	2012			2013		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
CFE Airframe	18	1		36.0		130.8	51.0		54.9
Engines	13	2	715.0	72.0		54.7	102.0		77.4
Avionics						10.9			15.4
Auxiliary Power Unit	6	1	69.0	36.0		3.4	51.0		4.8
Total Advance Procurement						199.8			152.5

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

Date: February 2011

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 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	To Comp	Total
Proposal w/o AP										
Then Year Cost	1354	1068	1156	888	315					4781
Constant Year Cost	1315	981	1040	781	271					4388
Present Value	1212	855	879	641	216					3803
AP Proposal										
Then Year Cost	1296	1019	1101	846	300					4562
Constant Year Cost	1260	935	990	744	258					4187
Present Value	1162	815	837	610	205					3629
AP Savings (Difference)										
Then Year Cost	-57	-49	-55	-42	-15					-218
Constant Year Cost	-54	-46	-50	-37	-13					-200
Present Value	-50	-40	-42	-31	-11					-174

Advance Procurement Requirements Analysis-Execution (P-10D)	Date: February 2011
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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)													
		2010					2011					2012		2013	
	PLT (mos)	Qty	Contract Forecast Date	Actual Contract Date	Total Cost Request	Actual Contract Cost	Qty	Contract Forecast Date	Actual Contract Date	Total Cost Request	Actual Contract Cost	Qty	Contract Forecast Date	Qty	Contract Forecast Date
End Item Quantity		70			70.0		47			47.0		36		51	
CFE Airframe	18	70	Dec 2010		30.8		47	Dec 2011		42.9		36		51	
Engines	13	140	Dec 2009		48.7		94	Dec 2010		42.4		72		102	
Avionics					9.7					7.6					
Auxiliary Power Unit	6	70	Dec 2009		3.0		47	Dec 2010		2.2		36		51	
Armored Crew Seat	6														
Hover Infrared Suppressor	14	70	Dec 2009		6.2		47	Dec 2010		5.4					
Elastomeric Bearings	10														
Miscellaneous															
Total Advance Procurement					98.4					100.5					

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature CH-47 HELICOPTER (A05101)
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Program Elements for Code B Items:			Code:		Other Related Program Elements: SSN A05008, SSN A05105							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	36	37	42	48		48	48	28	30	39	67	375
Gross Cost	885.3	950.2	1222.6	1363.1		1363.1	1326.9	816.5	889.2	1137.7	2302.7	10894.2
Less PY Adv Proc	32.8		50.7	57.8		57.8	55.0	60.3	76.5		212.9	545.9
Plus CY Adv Proc	32.8	50.7	57.8	55.0		55.0	60.3	76.5	73.9		139.0	545.9
Net Proc P1	885.3	1000.9	1229.6	1360.3		1360.3	1332.2	832.7	886.6	1137.7	2228.8	10894.2
Initial Spares												
Total Proc Cost	885.3	1000.9	1229.6	1360.3		1360.3	1332.2	832.7	886.6	1137.7	2228.8	10894.2
Flyaway U/C												
Weapon System Proc U/C			29.3								71.7	29.1

Description:
The CH-47F Chinook is a twin-turbine, tandem-rotor, heavy-lift transport helicopter with a useful load of up to 25,000 pounds. As the Army's only heavy lift helicopter, the CH-47F Improved Cargo helicopter is an essential component of the Army Future Force. The mission of the CH-47F is to transport troops (including air assault), supplies, weapons, and other cargo in general support operations. The CH-47F is vital to Overseas Contingency Operations and Homeland Security needs of our nation. Secondary missions include medical evacuation, aircraft recovery, parachute drops, disaster relief, and search and rescue. These aircraft are fielded to heavy helicopter companies and Special Operations Aviation. The CH-47F is expected to remain the Army's heavy lift helicopter until at least the 2038 timeframe. The CH-47F ReNew Program will provide a more reliable, less costly to operate aircraft compatible with Joint digital connectivity requirements in the Future Force. Key product improvements integrate a new-machined airframe, a performance capability, Common Avionics Architecture System, Air Warrior, Common Missile Warning System, enhanced air transportability, Digital Advance Flight Control System (DAFCS) and an Extended Range Fuel System II for self-deployment missions. The CH-47F program extends the Army's Chinook fleets useful life 20 years incorporating reliability and maintainability improvements including airframe tuning for vibration reduction, corrosion protection, digital source collectors, Transportable Flight Proficiency Simulators, Cargo Floor Handling System, Ballistic Protection System, Transformation Sets, Kits and Outfits, Aviation Training Devices, M240 Window/Door Gun Mounts and an automated maintenance program with a 400-hour phase interval. The ReNew program rebuilds and replaces CH-47Ds and 61 Special Operations Aviation MH-47s to the CH-47F/MH-47G configuration. The New Build program procures all CH-47F New Build aircraft and 8 Special Operations Aviation MH-47G New Build aircraft.

Justification:
FY 2012 Base funding in the amount of \$1,360.3 million will procure 33 new build (32 CH-47F and 1 MH-47G) aircraft and 15 renew aircraft. The correct quantity for FY12 should be 48.

COMPO Break see CH-47 NEW BUILD

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature CH-47 NEW BUILD (A05008)
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Program Elements for Code B Items:			Code:		Other Related Program Elements: SSN A05105							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	36	23	31	33		33	29	6	4	12	4	178
Gross Cost	885.3	692.2	931.2	936.4		936.4	792.7	207.2	139.9	405.7	155.0	5145.5
Less PY Adv Proc	32.8											32.8
Plus CY Adv Proc	32.8											32.8
Net Proc P1	885.3	692.2	931.2	936.4		936.4	792.7	207.2	139.9	405.7	155.0	5145.5
Initial Spares												
Total Proc Cost	885.3	692.2	931.2	936.4		936.4	792.7	207.2	139.9	405.7	155.0	5145.5
Flyaway U/C												
Weapon System Proc U/C	24.8										38.8	28.9

P-40 Breakdown											
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	
Active	Qty	23	25	15	0	15	29	6	4	12	
	Gross Cost	692205.0	775491.0	396399.0	0.0	396399.0	792677.0	207183.0	139866.0	405687.0	
National Guard	Qty	0	6	18	0	18	0	0	0	0	
	Gross Cost	0.0	155750.0	540000.0	0.0	540000.0	0.0	0.0	0.0	0.0	
Reserve	Qty	0	0	0	0	0	0	0	0	0	
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	Qty	23	31	33	0	33	29	6	4	12	
	Gross Cost	692205	931241	936399	0	936399	792677	207183	139866	405687	

Description:
The CH-47F Chinook is a twin-turbine, tandem-rotor, heavy lift transport helicopter with a useful load of up to 25,000 pounds. As the Army's only heavy lift helicopter, the CH-47F Improved Cargo helicopter is an essential component of the Army Future Force. The mission of the CH-47F is to transport troops (including air assault), supplies, weapons, and other cargo in general support operations. The CH-47F is vital to the Overseas Contingency Operations (OCO) and Homeland Security needs of our nation. Secondary missions include medical evacuation, aircraft recovery, parachute drops, disaster relief, and search and rescue. These aircraft are fielded to heavy helicopter companies and Special Operations Aviation. Key product improvements integrate a new-machined airframe, a performance capability, Common Avionics Architecture System, Air Warrior, Common Missile Warning System, enhanced air transportability, Digital Advance Flight Control System (DAFCS) and an Extended Range Fuel System II for self-deployment missions. The CH-47F is expected to remain the Army's heavy lift helicopter until at least the 2038 timeframe. This program is funded to meet the Army Aviation Transformation Plans full requirement for Chinook aircraft. New Build allows the Army to retain aircraft vice turn in for induction to rebuild. The CH-47F PM will field and train all active Army units using a New Equipment Training (NET) team through FY13. (Prior to FY08, "New Build" aircraft were funded on the CH-47 Cargo Helicopter Mod SSN AA0252). The CH-47F New Build program procures all CH-47F New Build aircraft and 8 MH-47 Special Operations Aviation New Build aircraft.

Exhibit P-40, Budget Item Justification Sheet	Date:
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February 2011

Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature CH-47 NEW BUILD (A05008)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: SSN A05105
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Justification:
FY 12 Base funding in the amount of \$936.4.1 million will procure 33 new build aircraft (32 CH-47Fs and 1 MH-47G).

The correct quantity in FY12 should be 33 aircraft.

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature: CH-47 NEW BUILD (A05008)			Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
AIRCRAFT Flyaway Costs																
Airframes/CFE		461717	23	20075	669379	31	21593	636440	33	19286				636440	33	19286
Engine/Accessories		42920	46	933	62369	62	1006	61210	64	956				61210	64	956
CFE Avionics		25434			32850			39824						39824		
GFE		27715			40273			30278						30278		
ECO (Flyaway)		10112			14591			13941						13941		
Other Costs		21491			27424			26304						26304		
SOA Aircraft								78202						78202		
Support Costs																
PSE		2787			2270			2096						2096		
Peculiar Training Equipment		472			8076			532						532		
Publications/Tech Data		544			532			491						491		
ECO (Support Items)		601			490			452						452		
NET		30000														
Other Costs		28691			18554			9129						9129		
Post Production Modifications					49624			31787						31787		
Initial Spares																
Initial Spares		3309			4809			5713						5713		
Subtotal Support Costs		655793			931241			936399						936399		
Less Advance Procurement PY																
Plus Advance Procurement CY																
Total:		655793		9504	931241		10013	936399		9654				936399		9654

Exhibit P-5a, Budget Procurement History and Planning	Date: February 2011
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Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 1/ Aircraft	Weapon System Type:	P-1 Line Item Nomenclature: CH-47 NEW BUILD (A05008)
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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
Airframes/CFE										
FY 2010	The Boeing Company Ridley Park, PA	SS / FFP	AMCOM	Dec 09	Jun 12	23	20075	YES		Apr 07
FY 2011	The Boeing Company Ridley Park, PA	SS / FFP	AMCOM	Dec 10	Jan 13	31	21593	YES		Apr 07
FY 2012	The Boeing Company Ridley Park, PA	SS / FFP	AMCOM	Dec 11	Jan 14	33	19286	YES		Apr 07

REMARKS: Note (FY11): Due to the Continuing Resolution Authority (CRA) Boeing has authorized a third extension to 30 Mar 11.

FY 11 / 12 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE CH-47 NEW BUILD (A05008)										Date: February 2011										
COST ELEMENTS						Fiscal Year 11										Fiscal Year 12														
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 11										Calendar Year 12										Later				
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP
Airframes/CFE																														
1	FY 08	A	6	0	6				1	2	2	1																0		
1	FY 09	A	31	0	31															5	4	4	4	4	2			8		
1	FY 10	A	5	0	5																							5		
1	FY 10	NG	18	0	18																							18		
1	FY 10	TOT	23	0	23																				2	4	4	4	9	
1	FY 11	A	31	0	31																							31		
1	FY 12	A	15	0	15																							15		
1	FY 12	NG	18	0	18																							18		
Total					147				1	2	2	1									5	4	4	4	4	4	4	4	4	104
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR 1	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	The Boeing Company, Ridley Park, PA	36	24	72		1	Initial	5	5	35	40	
							Reorder	0	0	0	0	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 13 / 14 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE CH-47 NEW BUILD (A05008)										Date: February 2011										
COST ELEMENTS						Fiscal Year 13										Fiscal Year 14										Later				
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 13										Calendar Year 14														
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP
Airframes/CFE																														
1	FY 08	A	6	6																								0		
1	FY 09	A	31	23	8				1	2	2	2	1															0		
1	FY 10	A	5	0	5																							5		
1	FY 10	NG	18	0	18																							18		
1	FY 10	TOT	23	14	9	3	3	1												1		1						0		
1	FY 11	A	31	0	31				3	4	5	4	2	2	2	2	2	2	2	1								0		
1	FY 12	A	15	0	15															3	3	3	3	3				0		
1	FY 12	NG	18	0	18																				3	3	2	3	7	
Total					104	3	3	1	4	6	7	6	3	2	2	2	2	2	2	1	4	3	4	3	3	3	3	2	3	30
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	The Boeing Company, Ridley Park, PA	36	24	72		1	Initial	5	5	35	40	
							Reorder	0	0	0	0	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 15 / 16 BUDGET PRODUCTION SCHEDULE

P-1 ITEM NOMENCLATURE
CH-47 NEW BUILD (A05008)

Date:
February 2011

COST ELEMENTS						Fiscal Year 15												Fiscal Year 16												Later																					
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 15												Calendar Year 16																																	
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP																						
Airframes/CFE																																																			
1	FY 08	A	6	6																								0																							
1	FY 09	A	31	31																								0																							
1	FY 10	A	5	0	5																							5																							
1	FY 10	NG	18	0	18																							18																							
1	FY 10	TOT	23	23																								0																							
1	FY 11	A	31	31																								0																							
1	FY 12	A	15	15																								0																							
1	FY 12	NG	18	11	7	2	3	2																				0																							
Total					30	2	3	2																				23																							
<table border="1"> <tr> <td>OCT</td><td>NOV</td><td>DEC</td><td>JAN</td><td>FEB</td><td>MAR</td><td>APR</td><td>MAY</td><td>JUN</td><td>JUL</td><td>AUG</td><td>SEP</td><td>OCT</td><td>NOV</td><td>DEC</td><td>JAN</td><td>FEB</td><td>MAR</td><td>APR</td><td>MAY</td><td>JUN</td><td>JUL</td><td>AUG</td><td>SEP</td> </tr> </table>																												OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP																												

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS		
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct					
		1	Initial	Reorder			5	5				35	40
1	The Boeing Company, Ridley Park, PA	36	24	72		1	Initial	Reorder	5	5	35	40	
							Initial	Reorder					
							Initial	Reorder					
							Initial	Reorder					
							Initial	Reorder					
							Initial	Reorder					

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature CH-47 SLEP (A05105)
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Program Elements for Code B Items:		Code:		Other Related Program Elements: SSN A05008								
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty		14	11	15		15	19	22	26	27	63	197
Gross Cost		294.4	291.3	426.7		426.7	534.2	609.3	749.4	732.0	2147.7	5785.1
Less PY Adv Proc			50.7	57.8		57.8	55.0	60.3	76.5		212.9	513.1
Plus CY Adv Proc			50.7	57.8		55.0	60.3	76.5	73.9		139.0	513.1
Net Proc P1		345.1	298.4	423.9		423.9	539.5	625.5	746.7	732.0	2073.8	5785.1
Initial Spares												
Total Proc Cost		345.1	298.4	423.9		423.9	539.5	625.5	746.7	732.0	2073.8	5785.1
Flyaway U/C												
Weapon System Proc U/C			27.1								32.9	29.4

Description:
 The CH-47F Chinook is a twin-turbine, tandem-rotor, heavy lift transport helicopter with a useful load of up to 25,000 pounds. As the Army's only heavy lift helicopter, the mission of the CH-47F is to transport troops (including air assault), supplies, weapons, and other cargo in general support operations. The CH-47F is vital to the Overseas Contingency Operations (OCO) and Homeland Security needs of our nation. Secondary missions include medical evacuation, aircraft recovery, parachute drops, disaster relief, and search and rescue. These aircraft are fielded to heavy helicopter companies and Special Operations Aviation. The CH-47F is expected to remain the Army's heavy lift helicopter until at least the 2038 timeframe. The CH-47F ReNew Program will provide a more reliable, less costly to operate aircraft compatible with Joint digital connectivity requirements in the Future Force. The ReNew Program produces an identical aircraft as the CH-47F New Build Program with the exception of dynamic components including engine, transmission and drive train. During production, the aircraft receives a new airframe, cockpit, wiring and plumbing. Dynamic components are recapitalized by the Original Equipment Manufacturer (OEM) and returned for incorporation during the assembly process. The ReNew Program rebuilds and replaces CH-47Ds and 61 Special Operations Aviation MH-47s to the CH-47F and MH-47G configuration. This program is funded to meet the Army Aviation Transformation Plans full requirement for Chinook aircraft. (Prior to FY10, this program was funded on the CH-47 Cargo Helicopters Mod SSN AA0252).

Justification:
 All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature CH-47 SLEP (A05105)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements: SSN A05008
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Ch-47 D to F Conversion										
0-00-00-0000	Operational	345.1	298.4	423.9	539.5	625.5	746.7	732.0	2073.8	5784.9
Totals		345.1	298.4	423.9	539.5	625.5	746.7	732.0	2073.8	5784.9

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Ch-47 D to F Conversion [MOD 1] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: CH-47D/F

DESCRIPTION / JUSTIFICATION:

The CH-47F ReNew Program will provide a more reliable, less costly to operate aircraft compatible with Joint digital connectivity requirements in the Future Force. The ReNew Program produces an identical aircraft as the CH-47F New Build Program with the exception of dynamic components including engine, transmission and drive train. During production, the aircraft receives a new airframe, cockpit, wiring and plumbing. Dynamic components are recapitalized by the Original Equipment Manufacturer (OEM) and returned for incorporation during the assembly process. The Renew Program rebuilds and replaces CH-47Ds and 61 Special Operations Aviation MH-47s to the CH-47F and MH-47G configuration. This program is funded to meet the Army Aviation Transformation Plans full requirement for Chinook aircraft. (Prior to FY10, this program was funded on the CH-47 Cargo Helicopters Mod SSN AA0252).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

LRIP I Contract Award - Dec 02
 MS III Production Decision - Nov 04
 FRP Contract Award - Dec 04

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs							4	3	4	4	3	3	3	2	4	4	4	3	4	5
Outputs									3	3	4	4	3	3	3	2	4	4	4	3

1	FY 2016			FY 2017				FY 2018				FY 2019				To Complete	Totals	
	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs	5	5	5	5	6	6	6	6	7	7	6	7	7	7	7	7	48	197
Outputs	4	5	5	5	5	5	6	6	6	6	7	7	6	7	7	7	63	197

METHOD OF IMPLEMENTATION: Contract **ADMINISTRATIVE LEADTIME:** 5 months **PRODUCTION LEADTIME:** 25 months
 Contract Dates: FY 2012 - Feb 12 FY 2013 - Feb 13 FY 2014 - Feb 14
 Delivery Dates: FY 2012 - Mar 14 FY 2013 - Mar 15 FY 2014 - Mar 16

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Ch-47 D to F Conversion [MOD 1] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement																		
Installation of Hardware																		
Recurring Production (Suppl)																		
Recurring Production (Mods)	14	307.6	11	232.0	15	361.4	19	461.5	22	545.5	26	625.5	27	652.5	63	1254.8	197	4440.8
Recurring Production (New Build)																		
Recurring (New Build NG)																		
Omnibus																		
Other Flyaway		15.4		19.7		24.0		46.6		54.8		63.6		55.3		127.7		407.1
Other Support		17.5		44.1		4.8		9.2		13.8		17.1		13.9		676.9		797.3
Training		0.9		0.2		0.2		0.4		0.6		0.7		0.6		1.6		5.2
Support Equipment		3.7		2.4		3.7		6.4		9.1		7.7		7.4		12.8		53.2
Post Production (Mods)						29.8		15.4		1.7		32.1		2.3				81.3
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		345.1		298.4		423.9		539.5		625.5		746.7		732.0		2073.8		5784.9

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Item Nomenclature CH-47 HELICOPTER (A05101)
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Program Elements for Code B Items:	Code:			Other Related Program Elements: SSN A05008, SSN A05105								
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc	32.8	50.7	57.8	55.0		55.0	60.3	76.5	73.9		139.0	545.9
Net Proc P1	32.8	50.7	57.8	55.0		55.0	60.3	76.5	73.9		139.0	545.9
Initial Spares												
Total Proc Cost	32.8	50.7	57.8	55.0		55.0	60.3	76.5	73.9		139.0	545.9
Flyaway U/C												
Weapon System Proc U/C												

Description:
 The CH-47F Chinook is a twin-turbine, tandem-rotor, heavy-lift transport helicopter with a useful load of up to 25,000 pounds. The CH-47F Improved Cargo Helicopter is an essential component of the Army Future Force. The CH-47F program fills the Army's Aviation Transformation Chinook requirement. Key product improvements integrate the CH-47F Common Avionics Architecture System (CAAS) digital cockpit which meets the Net-Ready Key Performance Parameters (KPPs) and also includes a digital data bus that permits installation of enhanced communication and navigation equipment for improved situational awareness, mission performance, and survivability. The new digital cockpit incorporates all new airframe components and modifies the aircraft to reduce vibration. New airframe structural components and modifications will reduce harmful vibrations, improving operation and support (O&S) efficiency and crew endurance. Other airframe modifications reduce by 60 percent the time required for aircraft tear down and build-up after C-5/C-17 deployment. These modifications significantly enhance the Chinook's strategic deployment capability.

Justification:
 FY 12 Base funding in the amount of \$55.0 million will procure avionics and airframe advance procurement.

All COMPO 1 Active

Advance Procurement Requirements Analysis-Funding (P-10A)				First System Award Date:	First System Completion Date:	Date: February 2011						
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft					P-1 Line Item Nomenclature / Weapon System: CH-47 HELICOPTER							
(\$ in Millions)												
	PLT (mos)	When Rqd (mos)	Pr Yrs	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	To Comp	Total
End Item Quantity												
Avionics	15	16	95.7	20.3	23.1	22.0	24.1	30.6	29.5			245.3
Airframe	13	14	143.5	30.4	34.7	33.0	36.2	45.9	44.4			368.1
Total Advance Procurement			239.2	50.7	57.8	55.0	60.3	76.5	73.9	0.0	0.0	613.4

Advance Procurement Requirements Analysis-Funding (P-10B)	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 1 / Aircraft	P-1 Line Item Nomenclature / Weapon System: CH-47 HELICOPTER
---	---

(\$ in Millions)									
	PLT (mos)	Quantity Per Assembly	Unit Cost	2012			2013		
				Qty	Contract Forecast Date	Total Cost Request	Qty	Contract Forecast Date	Total Cost Request
Avionics	15	1	1.0			22.0			24.1
Airframe	13	1	1.0			33.0			36.2
Total Advance Procurement						55.0			60.3

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

Date: February 2011

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

P-1 Line Item Nomenclature / Weapon System:
CH-47 HELICOPTER

(\$ in Millions)										
	Pr Yrs	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	To Comp	Total
Proposal w/o AP										
Then Year Cost	272	254	199	272	397	459	586	564	588	3591
Constant Year Cost	253	233	180	241	346	394	494	467	479	3087
Present Value	250	225	170	223	314	349	429	397	398	2755
AP Proposal										
Then Year Cost	282	255	207	269	402	476	583	568	511	3553
Constant Year Cost	262	234	186	239	350	408	491	470	416	3056
Present Value	259	226	176	221	318	362	427	399	346	2734
AP Savings (Difference)										
Then Year Cost	10	1	8	-3	5	17	-3	4	-77	-38
Constant Year Cost	9	1	6	-2	4	14	-3	3	-63	-31
Present Value	9	1	6	-2	4	13	-2	2	-52	-21

Constant Year Dollars are Fiscal Year 2005.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	183											183
Gross Cost	189.7		9.4									199.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	189.7		9.4									199.1
Initial Spares												
Total Proc Cost	189.7		9.4									199.1
Flyaway U/C												
Weapon System Proc U/C												1.1

Description:

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 Helicopter Textron, Incorporated 206B-3 helicopter. It is used exclusively at the U.S. Army Aviation Center, Fort Rucker, AL, for Initial Entry Rotor Wing (IERW). A mix of aircraft configured to support Visual Flight Rules (VFR), Instrument Flight Rules (IFR) and Basic War fighting Skills (BWS) training are used. The VFR version is ideal for early stages of flight school because it is lighter, simpler, and less sensitive to the harsher flight maneuvering generated during the students' primary training. The IFR is equipped for the more advanced instrument phase and is more complex and heavier, but does not undergo the harsher primary flight maneuvering generated in earlier training phases. An enhanced configuration of the VFR is a third design which offers a training environment for the acquisition of basic navigation/night/night vision goggles skills. All versions of the aircraft are designed to provide safe, effective and economical in-flight training when used to demonstrate and practice basic helicopter pilot skills.

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
C12 AIRCRAFT MODS (A01234)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost		40.0	122.3									162.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1		40.0	122.3									162.3
Initial Spares												
Total Proc Cost		40.0	122.3									162.3
Flyaway U/C												
Weapon System Proc U/C												

Description:

The C-12 fixed wing aircraft platform hosts a number of Army Intelligence, Surveillance and Reconnaissance/Reconnaissance Surveillance and Target Acquisition (ISR/RSTA) sensor systems that support irregular warfare in Overseas Contingency Operations (OCO). Included in those systems are the Guardrail Common Sensor (GRCS), Aerial Reconnaissance Multi Sensor (ARMS) (Iraq), the Medium Altitude Reconnaissance and Surveillance Systems (MARSS) (Iraq and Afghanistan), and Constant Hawk (Afghanistan). The ARMS system is composed of B-200 (C-12) aircraft equipped with imagery sensors, specialized COMINT sensors, and an array of line of sight and beyond line of sight communications equipment. The aircraft were fielded to Operation Iraqi Freedom (OIF) in FY06 and have been providing daily support to the (Task Force Observe, Detect Identify, Neutralize (TF ODIN) commander. Constant Hawk (CH) in Afghanistan is hosted on King Air 350 (C-12) aircraft. CH is a persistent surveillance wide field of view airborne intelligence, surveillance and reconnaissance (AISR) system conducting Counter Improvised Explosive Device (IED) surveillance and forensic force protection missions. CH uses high resolution Electro Optic (EO) cameras mounted on manned aircraft to provide persistent surveillance of a designated Named Area of Interest (NAI). The MARSS aircraft are C-12 variant aircraft equipped with numerous sensors to include imagery and communications intelligence (COMINT) payloads. They also include several line-of-sight and beyond line of sight communications systems and on board (manned) processing of the imagery and COMINT. In the past year we lost one aircraft in OEF.

Justification:

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature C12 AIRCRAFT MODS (A01234)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Red Ridge 1 Replacement										
1-11-00-01	U	0.0	66.5	0.0	0.0	0.0	0.0	0.0	0.0	66.5
Specialized Light Detection & Ranging (LIDAR)										
2-11-00-02	U	0.0	55.8	0.0	0.0	0.0	0.0	0.0	0.0	55.8
Totals		0.0	122.3	0.0	0.0	0.0	0.0	0.0	0.0	122.3

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Red Ridge 1 Replacement [MOD 1] 1-11-00-01

MODELS OF SYSTEM AFFECTED: MARSS 1 (RR1)

DESCRIPTION / JUSTIFICATION:

This effort will provide a replacement for Red Ridge 1 (RR1) MARSS system battle loss in OEF. This system will contain Signals Intelligence (SIGINT) and Full Motion Video (FMV) sensors as well as the required communications and data links. The RRI aircraft was lost in combat during FY09, and another aircraft is required to maintain OPTEMPO in theater as well as provide COMINT and imagery capabilities in theater. PMFW will procure the replacement aircraft with funding line A02700. PM ACS will fund the integration effort and initial support efforts.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

4QFY12: Begin integration of initial platforms
 2QFY13: Completion of Integration, Testing, and deployment.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs								1												
Outputs									1											

1	2	3	4	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals	
				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs																						1
Outputs																						1

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME:

0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Red Ridge 1 Replacement [MOD 1] 1-11-00-01

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement																		
Installation of Hardware																		
PME/Integration			1	14.0													1	14.0
Prog Mgt and Test				3.2														3.2
Init Ctr Spt for RR1 & MARSS 19,20				49.3														49.3
 FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		66.5		0.0		0.0		0.0		0.0		0.0		0.0		66.5

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Specialized Light Detection & Ranging (LIDAR) [MOD 2] 2-11-00-02

MODELS OF SYSTEM AFFECTED: LIDAR 1 & 2

DESCRIPTION / JUSTIFICATION:
 The LIDAR sensor will be used to collect high resolution, high accuracy elevation data which supports improved battlefield visualization, line of sight and urban warfare planning to combat forces assigned to OEF. This effort funds the PME & integration and initial support for 2 systems on PM Fixed Wing provided aircraft. PM Fixed Wing will procure the aircraft with funding line A02700.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs									2											
Outputs										2										

1	2	3	4	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals	
				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs																						2
Outputs																						2

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME: 0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Specialized Light Detection & Ranging (LIDAR) [MOD 2] 2-11-00-02

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement																		
Installation of Hardware																		
LIDAR PME & Integration			2	20.0													2	20.0
PM & Test				3.8														3.8
Initial Ctr Spt				32.0														32.0
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		55.8		0.0		0.0		0.0		0.0		0.0		0.0		55.8

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
MQ-1 PAYLOAD - UAS (A00020)

Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost		87.2	104.0	136.2	10.8	147.0	265.0	259.5	234.2	59.7		1156.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1		87.2	104.0	136.2	10.8	147.0	265.0	259.5	234.2	59.7		1156.5
Initial Spares												
Total Proc Cost		87.2	104.0	136.2	10.8	147.0	265.0	259.5	234.2	59.7		1156.5
Flyaway U/C												
Weapon System Proc U/C												

Description:
Advanced Tactical Unmanned Aircraft Systems (UAS) Payloads (A00020) budget line supports the procurement of the following Intelligence, Surveillance and Reconnaissance(ISR) payload systems: (1) STARLite - Synthetic Aperture Radar/Ground Moving Target Indicator (SAR/GMTI), (2) Electro Optical Infrared w/Laser Designator (EO/IR/LD) Common Sensor Payload (CSP) AN/AAS-53, and (3) Tactical Signals Intelligence (SIGINT) Payload (TSP). CSP, STARLite and TSP are principle payloads for the Gray Eagle (Extended Range Multi Purpose - ER/MP) UAS. The AAO for STARLite and CSP is equivalent to aircraft/platform quantities, one system per Gray Eagle UAS - AAO is commensurate with aircraft quantity (one CSP and STARLite payload per aircraft).

These systems support the Army's transformation by developing ISR payloads for brigade combat team, division, and corps UAS in accordance with Headquarters Department of the Army (HQDA) and Training and Doctrine Command (TRADOC) priorities.

The STARLite (SAR/GMTI) payload will provide a wide-area search capability with a built-in imaging mode that provides essential all-weather surveillance and increased situational awareness.

The Electro Optical Infrared with Laser Designator (EO/IR/LD) Common Sensor Payload (CSP) was being developed for the Gray Eagle (ER/MP) UAS unmanned aircraft and has potential application to other platforms. CSP will provide a day/night capability to collect and display continuous imagery with the ability to designate targets of interest for attack by laser guided precision weapons. This effort has been expanded to include High Definition (HD) and Target Location Accuracy (TLA) capability enhancement.

The Tactical Signals Intelligence (SIGINT) Payload (TSP) is a sensor currently under development for the ER/MP UAS that detects radio frequency (RF) emitters. TSP, through handoff from the Combat Aviation Brigade, is capable of providing the Tactical Land Commander with an overwatch and penetrating SIGINT system capable of detecting, identifying, locating, and providing geolocation information on RF emitters throughout the Area of Operations. The TSP is scalable and modular, designed to provide maximum flexibility. TSP will provide near real time actionable intelligence that can immediately be used in the commander's decision cycle. The TSP electronic emitter information will be correlated with data from other systems (e.g. Prophet and Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS), at a Distributed Common Ground System-Army (DCGS-A) node to provide precise targeting information for immediate engagement. TSP maps and aligns with the 2009 Under Secretary of Defense for Intelligence Cross Cutting study and Force Sizing Assessment with Airborne Precision Geolocation and Tactical SIGINT capabilities. TSP also supports the 2009 Office of the Secretary of Defense Cross-Cutting Study: 6 Overarching Axioms for Information Warfare, Intelligence, Surveillance, and Reconnaissance (ISR) Force Sizing, VCJCS Update, 25 Apr 09, with SIGINT (Geolocation) and SIGINT (Internals). TSP sensors are critical to providing Reconnaissance, Surveillance, and Target Acquisition (RSTA) information and contributing to the Joint ISR net.

Exhibit P-40, Budget Item Justification Sheet	Date:
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February 2011

Appropriation / Budget Activity / Serial No: <small>Aircraft Procurement, Army / 2 / Modification of aircraft</small>	P-1 Item Nomenclature <small>MQ-1 PAYLOAD - UAS (A00020)</small>
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Justification:
 FY12 base procurement dollars in the amount of \$136.183 million supports procurement of 29 STARLite and 33 CSP. These payloads support the fielding schedule for the Gray Eagle (ER/MP) UAS. STARLite and CSP will be in support of the 6th and 7th Unit Equipped (UE). Cost includes system procurement, spares, contractor support, Interim Contractor Support (ICS), and initiates the STARLite retrofit program where all previously procured systems are to be retrofit to the updated configuration - larger antenna with increased range and enhanced reliability.

FY12 OCO Procurement dollars in the amount of \$10.800 million supports STARLite procurement for battle damaged systems (\$4.800 million) and CSP Procurement for battle damaged systems (\$6.000 million).

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft					P-1 Line Item Nomenclature: MQ-1 PAYLOAD - UAS (A00020)				Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total			
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	
CSP (EO/IR/LD)																	
CSP Hardware		21037	28	751	18670	24	778	25686	33	778				25686	33	778	
CSP Battle Damaged Procurement											6000			6000			
PMO Support		1429			3078			3601						3601			
Program Management/ Eng Support		100			933			321						321			
Engineering Changes					1680			1027						1027			
System Test & Eval		5107			113												
Initial Spares		11271			3579			16180						16180			
Interim Contractor Support		9339			1933			4806						4806			
Tech Data Packages								15000						15000			
Other		216			5799			1400						1400			
STARLite (SAR/GMTI)																	
STARLite Hardware		15123	24	630	21983	24	916	25302	29	872				25302	29	872	
Hardware Retrofits					4337	20	217	4282						4282			
STARLite Battle Damaged Procurement											4800			4800			
PMO Support		1429			4031			3714						3714			
Program Management/ Eng Support		648			311			606						606			
Engineering Changes		2770			3033			1012						1012			
System Test & Eval		783			2332			4251						4251			
Initial Spares		3070			4759			10566						10566			
Interim Contractor Support					1882			1844						1844			
Tech Data Packages								15000						15000			
Other					5560			1585						1585			
Tactical SIGINT Payload (TSP)																	
TSP Hardware					13271	12	1106										
Program Management/ Eng Support					1254												
Engineering Changes					483												
System Test & Eval					1820												
Initial Spares					2472												
Training					210												
Data					490												
Other		14832															
Total:		87154			104013			136183			10800			146983			

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 2/ Modification of aircraft		Weapon System Type:		P-1 Line Item Nomenclature: MQ-1 PAYLOAD - UAS (A00020)							
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	
CSP Hardware											
FY 2010	Raytheon McKinney, TX	C / IDIQ	CECOM	Jun 10	Jun 11	28	751	N			
FY 2011	Raytheon McKinney, TX	C / IDIQ	CECOM	Jan 11	Jan 12	24	778				
FY 2012	Raytheon McKinney, TX	C / IDIQ	CECOM	Jan 12	Jan 13	33	778				
STARLite Hardware											
FY 2010	Northrop Grumman Linthicum, MD	C / FFP	CECOM	Mar 10	Mar 11	24	630	N			
FY 2011	Northrop Grumman Linthicum, MD	C / FFP	CECOM	Dec 10	Dec 11	24	916	N			
FY 2012	Northrop Grumman Linthicum, MD	C / FFP	CECOM	Jan 12	Jan 13	29	872	N			
TSP Hardware											
FY 2011	TBD TBD	C / FFP	CECOM	Jan 11	Apr 12	12	1106	N			

REMARKS: FY10 APA
- SAC-D report 111-295, page 192 removed \$14M from A00020.

Tactical Unmanned Aircraft Vehicle: Tactical SIGINT Payload \$14.0M APA rescinded

FY 12 / 13 BUDGET PRODUCTION SCHEDULE											P-1 ITEM NOMENCLATURE MQ-1 PAYLOAD - UAS (A00020)										Date: February 2011									
COST ELEMENTS						Fiscal Year 12										Fiscal Year 13										Later				
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12										Calendar Year 13														
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP
CSP Hardware																														
1	FY 10	A	28	12	16	2	2	2	2	2	2	2	2															0		
1	FY 11	A	24	0	24					2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0		
1	FY 12	A	33	0	33				A											3	3	3	3	3	3	3	2	2	8	
STARLite Hardware																														
2	FY 10	A	24	12	12	2	2	2	2	2	2																	0		
2	FY 11	A	24	0	24							2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0			
2	FY 12	A	29	0	29				A											3	3	3	3	3	3	2	2	2	6	
TSP Hardware																														
3	FY 11	A	12	1	11	1	1	1	1	1	1	1	1	1	1	1												0		
Total																														
					149	5	5	5	5	7	7	7	7	5	5	5	4	4	4	4	10	8	8	6	6	5	5	4	4	14
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct			
1	Raytheon, McKinney, TX	12	24	180		1	0	1	11	12	
							0	0	12	12	
2	Northrop Grumman, Linthicum, MD	12	12	96		2	0	1	11	12	
							0	0	12	12	
3	TBD, TBD	12	6	72		3	0	8	0	8	
							0	8	6	14	

FY 14 / 15 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE MQ-1 PAYLOAD - UAS (A00020)										Date: February 2011								
COST ELEMENTS					Fiscal Year 14										Fiscal Year 15										Later			
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 14										Calendar Year 15												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR		MAY	JUN	JUL
CSP Hardware																												
1	FY 10	A	28	28																							0	
1	FY 11	A	24	24																							0	
1	FY 12	A	33	25	8	2	3	3																			0	
STARLite Hardware																												
2	FY 10	A	24	24																							0	
2	FY 11	A	24	24																							0	
2	FY 12	A	29	23	6	2	2	2																			0	
TSP Hardware																												
3	FY 11	A	12	12																							0	
Total																												
					14	4	5	5																				
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Raytheon, McKinney, TX	12	24	180		1	Initial	0	1	11	12	
							Reorder	0	0	12	12	
2	Northrop Grumman, Linthicum, MD	12	12	96		2	Initial	0	1	11	12	
							Reorder	0	0	12	12	
3	TBD, TBD	12	6	72		3	Initial	0	8	0	8	
							Reorder	0	8	6	14	
							Initial					
							Reorder					
							Initial					
							Reorder					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
MQ-1 WEAPONIZATION - UAS (A00025)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost		3.8	14.7									18.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1		3.8	14.7									18.5
Initial Spares												
Total Proc Cost		3.8	14.7									18.5
Flyaway U/C												
Weapon System Proc U/C												

Description:

This budget line funds weaponization capabilities of Unmanned Aircraft Systems (UAS) such as the Extended Range Multi-Purpose (ERMP) UAS. Effort includes procurement of launchers, cables and rails from PM JAMS and all other government support required for full scale integration.

Justification:

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis	Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft		P-1 Line Item Nomenclature: MQ-1 WEAPONIZATION - UAS (A00025)			Weapon System Type:			Date: February 2011		

ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
WEAPONIZATION - UAS																
Weaponization Effort - OGA		3786			14729											
Total Government		3786			14729											
Total:		3786			14729											

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature GUARDRAIL MODS (MIP) (AZ2000)
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Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	1189.4	111.5	60.1	27.6		27.6	21.9	11.7	11.7	11.6		1445.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	1189.4	111.5	60.1	27.6		27.6	21.9	11.7	11.7	11.6		1445.5
Initial Spares												
Total Proc Cost	1189.4	111.5	60.1	27.6		27.6	21.9	11.7	11.7	11.6		1445.5
Flyaway U/C												
Weapon System Proc U/C												

Description:
 - Guardrail Common Sensor (GR/CS) is a tactical fixed-wing, airborne, signals intelligence (SIGINT) collection and precision targeting location system. The GR/CS systems are fielded to four Aerial Exploitation Battalions (AEBs) which are under the command of INSCOM. GR/CS provides near-real-time information to tactical commanders in the joint task force area supporting a full spectrum of operations (close in and deep look collections). It collects low-, mid-, and high-band radio signals; identifies and classifies them; determines source location; and provides near-real-time reporting, ensuring information dominance to commanders. GR/CS uses the Mission Operations Facility (MOF) for payload tasking, data processing, and mission operations. The MOF & supporting ground equipment are migrating to DCGS-A to provide direct support to the Brigade Combat Teams (BCT). The purpose of the Guardrail Modernization Program is to significantly improve the system's tactical Irregular Warfare capability, while maintaining its Full Spectrum performance. Based on a HQDA G-3/5/7 Memorandum Dated 15 Nov 2010 the GR/CS Modernization program will end after the completion of 14 Systems vs. the original plan to complete 33 Systems. This change is to assist the funding, force structure and manning for the EMARSS program, without losing necessary capability to the force.

The GR Modernization program includes three main efforts: cockpit modernization, external aircraft modifications, and payload upgrades. Initial planning established an overall schedule to integrate all of these efforts, while minimizing impacts to current GR operations in support of Operation New Dawn (OND) & Operation Enduring Freedom (OEF). The GR/CS modernization effort provides A-Kits for the fleet of 14 mission aircraft (designated RC-12X) with capabilities that allow GR/CS to keep pace with a flexible enemy. Communications High Accuracy Location Subsystem-Compact (CHALS-C) provides precision geo-location and supports Theater for Net-Centric Geo-location (TNG) Architecture Cooperative Operations. Enhanced Situational Awareness (ESA) provides modern airborne COMINT subsystem and infrastructure. High Band COMINT (HBC) provides enhanced capability to intercept, locate, and exploit high frequency COMINT signals. Special Signals (SS) provides enhanced X-MIDAS hardware architecture and capability to intercept and exploit special signals. ELINT is standardized in a P-Pod configuration on 14 aircraft and provides AQL processing B-Kits.

Justification:
 FY 2012 Base Procurement dollars in the amount of \$27.575 million integrates and deploys the GR Modernization capability on the remaining seven RC-12X aircraft. These deployment efforts provide the necessary field installation efforts, new equipment training, contractor field support, and spares to effectively operate the system. OCONUS training, FSR support, and repairs will be provided to support initial operations in support of Operation Enduring Freedom. FY12 GR Mod upgrades will be deployed on seven RC-12X aircraft; and will provide upgraded ground processing software in Mission Operations Facilities.

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011			
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft					P-1 Item Nomenclature GUARDRAIL MODS (MIP) (AZ2000)					
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature					
Program Elements for Code B Items:					Code:		Other Related Program Elements:			
Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Comm High Accuracy Location Sys-Compact (CHALS-C)										
1-06-111-2006		22.8	3.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8
Special Signals (SS) Subsystem										
1-07-333-2007		18.6	3.1	0.0	0.0	0.0	0.0	0.0	0.0	21.7
Enhanced Situational Awareness (ESA) Subsystem										
1-06-333-2006		397.2	38.9	27.6	21.9	11.7	11.7	11.6	0.0	520.6
Guardrail Ground Base (GGB) Station										
1-07-111-2007		6.8	6.5	0.0	0.0	0.0	0.0	0.0	0.0	13.3
High Band COMINT (HBC) Subsystem										
1-07-222-2007		60.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	61.4
Electronic Intelligence (ELINT) Subsystem										
1-07-444-2007		15.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	18.6
Airborne Precision Geolocation (APG)										
1-10-111-2010		7.1	4.4	0.0	0.0	0.0	0.0	0.0	0.0	11.5
Totals		528.3	60.1	27.6	21.9	11.7	11.7	11.6	0.0	672.9

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Enhanced Situational Awareness (ESA) Subsystem [MOD 3] 1-06-333-2006

MODELS OF SYSTEM AFFECTED: System 1 & 2

DESCRIPTION / JUSTIFICATION:

-The ESA Upgrade provides a Modern Airborne Communication Intelligence (COMINT) Subsystem on 14 GRCS aircraft plus spares; provides a capability against modern commercial targets; & allows GRCS to remain relevant until the Enhanced Medium Altitude Reconnaissance & Surveillance System (EMARSS) is fielded. The ESA upgrade replaces the current 1980's vintage Direction Finding (DF) and signal classification subsystems with a Net-Centric Sustainable Architecture capable of mapping the modern signal environment & provides the software on the ground to enable sensor control & signal exploitation tools. Upgrades are needed to keep the system relevant against evolving threat signals. ESA also includes the integration, test and fielding for CHALS-C, High Band COMINT (HBC), Special Signals (SS); integration of X-Midas, & Data Link equipment, & for related aircraft mods to continue to support these capabilities. ESA will provide data link & cockpit upgrades for the first two systems. ESA provides COMINT infrastructure and Core COMINT capability allowing more open architecture & continued relevance against emerging OEF/OIF/OND threats.

Justification: FY2012 provides Program Management Support, System Assessment & Test, and New Equipment Training (NET) for: ESA, SS, CHALS-C & HBC. Installation of ESA includes contract costs to integrate/test/fielding ESA, CHALS-C, HBC and SS on Aircraft 8-14; and continued engineering support to allow the system to keep pace with current technology. Systems installation will occur "As Units Become Available" between deployments.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

1QFY2009 Factory Acceptance Test
 4QFY2010 System Assessment Test
 1QFY2011-3QFY2011 Field 1st ESA Upgrade
 2QFY2012-4QFY2012 Field 2nd ESA Upgrade

Installation Schedule

Pr Yr	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals																				
Inputs	12	2																		
Outputs			7				4	3												

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		14
Outputs																		14

METHOD OF IMPLEMENTATION: Contractor ADMINISTRATIVE LEADTIME: 3 months PRODUCTION LEADTIME: 12 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Enhanced Situational Awareness (ESA) Subsystem [MOD 3] 1-06-333-2006

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		397.2		38.9		27.6		21.9		11.7		11.7		11.6				
PROCUREMENT																			
Non-Recur		118.7		3.3															122.0
Recur ESA B-Kit	24	73.2	2	6.3														26	79.5
Recur A-Kit (Racks/Cable)	22	33.4	3	4.7														25	38.1
Recur A-Kit (Airframe)	20	23.2	3	3.6														23	26.8
Recur Nav/Timing	22	12.9	3	1.8														25	14.7
NRE/Recur Data Link Air	28	20.8	6	2.8														34	23.6
Recur Data Link Ground	4	1.8																4	1.8
Spare ESA B-Kit	3	9.1																3	9.1
Eng Lab Asset ESA B-Kit	2	4.9																2	4.9
Aircraft Upgrade Cockpit	16	33.1																16	33.1
System Integration		9.1				10.1		8.5		5.0		5.0		5.0					42.7
Sys Assessment/Test Spt		5.5		1.5															7.0
Training Supt		0.9		0.5															1.4
Fielding (CHALS/ESA/HBC)		6.8		3.5		6.0		2.4											18.7
PM Support		39.2		10.7		6.5		2.5		1.7		1.7		1.7					64.0
Initial Spares Provision		4.0				5.0													9.0
Tech Refresh Upgrdade								8.5		5.0		5.0		4.9					23.4
A-Kit Installations:																			
FY 2009 Installation	5	0.3																5	0.3
FY 2010 Installation	5	0.3																5	0.3
FY 2011 Installation			4	0.2														4	0.2
FY 2012 Installation																			
FY 2013 Installation																			
Total Installment	10	0.6	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		14	0.8
Total Procurement Cost		397.2		38.9		27.6		21.9		11.7		11.7		11.6		0.0			520.6

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Guardrail Ground Base (GGB) Station [MOD 4] 1-07-111-2007

MODELS OF SYSTEM AFFECTED: System 1, 2, 3 & 4

DESCRIPTION / JUSTIFICATION:

Baseline GR/CS Ground Processing for all four GRCS Systems; provides Common Hardware and Software Baselines; supports full functionality of existing Integrated Processing Facilities (IPF); minimizes footprint and improves deployability; supports split-based operations; and provides migration path to Distributed Common Ground Station System-Army (DCGS-A). GGB 2.0 is interoperable with all legacy GR/CS configurations. GGB 3.0 will add interoperability with GR Mod Aircraft.

Justification: FY 2012 There is no funding request for FY12. Prior years funding have provided software/hardware upgrades to the GGB, and these upgrades have been fielded to various sites worldwide.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

4QFY2006 Field System 3
 2QFY2007 Field System 4
 1QFY2008 Field System 1
 4QFY2008 Field System 2

NOTE: System installation will occur as units become available between deployments.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4			
Inputs														
Outputs														

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME: 0 months

Contract Dates: FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates: FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Guardrail Ground Base (GGB) Station [MOD 4] 1-07-111-2007

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RD&E		6.8		6.5														
Procurement																			
Installation of Hardware																			
Hardware		2.3																	2.3
Integration & Test		2.2																	2.2
Spares		0.4																	0.4
Docs		0.5																	0.5
Licenses/Hardware		0.5																	0.5
Hardware Data Link (Ground)		0.9																	0.9
Hardware/Software Mod				6.5															6.5
FY 2009 & Prior Equip -- Kits																			
FY 2010 -- Kits																			
FY 2011 Equip -- Kits																			
FY 2012 Equip -- Kits																			
FY 2013 Equip -- Kits																			
FY 2014 Equip -- Kits																			
FY 2015 Equip -- Kits																			
FY 2016 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	0.0	0	0.0	0	0.0	0
Total Procurement Cost		6.8		6.5		0.0		0.0		0.0		0.0		0.0		0.0		0.0	13.3

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
MULTI SENSOR ABN RECON (MIP) (AZ2001)

Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	475.4	121.0	103.2	8.4	54.5	62.9	8.4	4.8	114.6	143.7		1034.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	475.4	121.0	103.2	8.4	54.5	62.9	8.4	4.8	114.6	143.7		1034.0
Initial Spares												
Total Proc Cost	475.4	121.0	103.2	8.4	54.5	62.9	8.4	4.8	114.6	143.7		1034.0
Flyaway U/C												
Weapon System Proc U/C												

Description:
Multi Sensor Airborne Reconnaissance (AZ2001) is a summary budget line including the following programs:
(1) Airborne Reconnaissance Low (ARL) Mods (MIP). ARL is a multi-intelligence (MultiINT) airborne sensor providing the Combatant Commander with real-time Communications Intelligence (COMINT), Imagery Intelligence (IMINT) and radar products. These systems are currently supporting forces in Central Command (CENTCOM), SOUTHCOM, and Republic of Korea (ROK).
(2) ARMS/MARSS Mods (MIP). Aerial Reconnaissance Multi Sensor (ARMS) and Medium Altitude Reconnaissance and Surveillance System (MARSS) are quick reaction capability (QRC) systems which support real-time surveillance and target acquisition missions in Iraq and Afghanistan. These systems can be configured with imagery, COMINT or other sensors, depending on the emerging requirements. MARSS is a Government Owned/Contractor Operated (GOCO) system; ARMS is an Army system.
(3) Constant Hawk (MIP). Constant Hawk is a persistent surveillance wide field of view Airborne Intelligence, Surveillance and Reconnaissance (AISR) system conducting Counter Improvised Explosive Device (IED) surveillance force protection missions in Iraq.
(4) Airborne Intelligence, Surveillance and Reconnaissance (ISR) Mods (MIP). AISR Mods support the Global War on Terrorism (GWOT) mission by providing real-time data links and a wide range of product exploitation/dissemination capability. This allows receivers of real-time video with METAdata and enables secondary exploitation tools to produce products for dissemination to maneuver elements. Video is also routed to multiple users in theater. The configuration also supports capture and dissemination of other sensors/capabilities (radars, et al).

Justification:
FY12 Base procurement dollars in the amount of \$8.362 million supports the procurement of interoperability data links and installation, procurement of workstation architecture software, RADAR software improvements, and COMINT Signal processing software for the ARL program. This modernization and standardization effort represents critical technology insertions to improve system capability, target relevance, and improves the system long term sustainability. The upgrades provide critical capability requirements in support of OEF and Overseas contingency Operations (OCO) in support of the Warfighter.

FY12 OCO procurement dollars in the amount of \$54.500 million will be used for upgrades to SIGINT sensors, aircraft workstations, and communications for the ARMS and MARSS aircraft. This will allow for the upgrade of all ARMS and MARSS to improve performance and the ability to provide better target acquisition and dissemination of information within Iraq and Afghanistan theaters. Funds will also provide for the purchase of four Constant Hawk - A aircraft that are currently Contractor Owned-Contractor Operated (COGO).

All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

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

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	475.4	33.9	17.0	8.4		8.4	8.4	4.8	114.6	143.7		806.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	475.4	33.9	17.0	8.4		8.4	8.4	4.8	114.6	143.7		806.2
Initial Spares												
Total Proc Cost	475.4	33.9	17.0	8.4		8.4	8.4	4.8	114.6	143.7		806.2
Flyaway U/C												
Weapon System Proc U/C												

Description:

Airborne Reconnaissance Low Multifunctional (ARL-M) is a modified DeHavilland DHC-7 aircraft that performs Intelligence and Electronic Warfare (IEW), Indications and Warning (I&W), Reconnaissance Surveillance and Target Acquisition (RSTA), and Sensitive Reconnaissance Operations (SRO) missions in support of combatant commanders and designated tactical consumers. The current objective baseline multi-intelligence/configuration capability evolved from previous single discipline systems with the capability to tailor mission configurations to meet the specific needs of the supported command. The asset is organic to Aerial Exploitation Battalions (AEB) stationed at Ft. Bliss, TX and in the Republic of Korea and routinely provides near real-time tactical airborne COMINT and IMINT collection support to Central Command (CENTCOM), Southern Command (SOUTHCOM), US Forces Korea (USFK), and designated Joint Task Force (JTF) Commanders. The ARL-M program originally responded to requirements validated in Combatant Commanders' Statements of Need (SON), later was incorporated into the ACS ORD annex, and also responds to emergent asymmetrical threats associated with organized irregular warfare. The primary sensors are COMINT with Direction Finding (DF) capability, IMINT electro-optic/infrared (EO/IR) Full Motion Video for target identification and classification, and multimode capability including wide area search, Moving Target Indicator (MTI) and Synthetic Aperture Radar (SAR). ARL is a multi-INT system, applicable to forward deployment/force projection missions and operations inclusive of Overseas Contingency Operations (OCO). ARL is rapidly self-deployable to support contingency operations, and is the airborne Reconnaissance Surveillance Target Acquisition (RSTA) platform of choice. ARL configuration includes interoperability with other Army and DOD Intel nodes such as Common Ground Station (CGS) and the effort includes progression to the Distributed Common Ground Station (DCGS) architecture.

The ARL Modernization Program standardizes the payload systems, upgrades the COMINT subsystem for improved Irregular Warfare tactical collection and geo-location, enhances the FMV system with a High Definition capability, and improves the SAR//MTI capability. The modernization program ensures continued ARL relevancy against current and emerging threat emitters and tactics across the full spectrum of operations.

Justification:

FY12 Base procurement dollars in the amount of \$8.362 million supports the procurement of interoperability data links and installation, procurement of workstation architecture software, RADAR software improvements, and COMINT Signal processing software. This modernization and standardization effort represents critical technology insertions to improve system capability, target relevance, and improves the system long term sustainability.

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011			
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft					P-1 Item Nomenclature ARL MODS (MIP) (AZ2050)					
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature					
Program Elements for Code B Items:					Code:		Other Related Program Elements:			
Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Comint Upgrades										
6-66-66-0000	Operational	36.3	3.1	1.6	1.9	1.0	1.0	0.0	0.0	44.9
System Interoperability										
0-00-08-8888	Operational	21.1	4.4	3.5	3.6	1.5	1.6	0.0	0.0	35.7
Radar										
0-00-05-2222	Operational	32.6	1.5	1.6	1.5	1.2	1.1	0.0	0.0	39.5
Workstation Architecture										
1-08-11-0000	Operational	11.6	3.1	1.4	1.4	1.1	1.1	0.0	0.0	19.7
Imagery										
0-00-05-3333	Operational	22.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.6
ARL-C to ARL-M Conversion										
0-00-07-7777	Operational	30.2	4.9	0.3	0.0	0.0	0.0	0.0	0.0	35.4
High Definition (HD) Sensors										
0-00-09-9999	Operational	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5
Payload Migration										
0-01-10-1111	Operational	0.0	0.0	0.0	0.0	0.0	109.8	143.7	0.0	253.5
Completed Mods										
0-00-00-0000	Operational	56.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.1
Totals		223.0	17.0	8.4	8.4	4.8	114.6	143.7	0.0	519.9

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
ARMS MARSS MODS (MIP) (AZ2052)

Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	23.2	41.7		39.5	39.5						104.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	0.0	23.2	41.7		39.5	39.5						104.4
Initial Spares												
Total Proc Cost	0.0	23.2	41.7		39.5	39.5						104.4
Flyaway U/C												
Weapon System Proc U/C												

Description:
ARMS/MARSS Mods (MIP). Aerial Reconnaissance Multi Sensor (ARMS) and Medium Altitude Reconnaissance and Surveillance System (MARSS) are two quick reaction capability (QRC) systems which support real-time surveillance and target acquisition missions in Iraq and Afghanistan. They provide manned airborne reconnaissance platforms to provide commanders with real time intelligence and support to their battlefield operations. These systems can be configured with various sensors and communications equipment to include imagery, COMINT or other specialized sensors, depending on the emerging requirements.

ARMS: There are nine ARMS aircraft fielded to Iraq in support of Task Force Observe, Detect, Identify and Neutralize (TF ODIN). The ARMS system is composed of B-200 (C-12) aircraft equipped with imagery sensors, specialized COMINT sensors, and an array of line of sight and beyond line of sight communications equipment. The aircraft were fielded to Operation Iraqi Freedom (OIF) in FY06 and have been providing daily support to the TF ODIN commander. They are manned with Army reserve personnel and maintained and supported by contractors. A major enabler for this equipment is real-time data links and a wide range of product exploitation/dissemination capability. This allows users to receive real-time video with Metadata and enables secondary exploitation tools to produce products for dissemination to maneuver elements. Imagery is also routed to multiple users in theater. The configuration also supports capture and dissemination of other sensors/capabilities. Prior to establishment of this line, FY07 and FY08 Supplemental funds were placed in the Airborne Reconnaissance Low (ARL) Mods line (AZ2050) to support the integration and fielding of the ARMS systems.

MARSS: The MARSS aircraft are primarily King Air 300's (C-12 variant) equipped with numerous sensors to include imagery and communications intelligence (COMINT) payloads. They also include several line-of-sight and beyond line-of-sight communications systems and on board (manned) processing of the imagery and COMINT. There is one MARSS aircraft in Iraq and seven in Afghanistan. These systems are and will be under the command of the TF ODIN-Iraq and Afghanistan (TFO-I & TFO-A) commanders.

Justification:
FY12 OCO procurement dollars in the amount of \$39.500M to be used for upgrades to SIGINT sensors, aircraft workstations, and communications for the ARMS and MARSS aircraft. This will allow for the upgrade of all ARMS and MARSS to improve performance and the ability to provide better target acquisition and dissemination of information within theater.

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature ARMS MARSS MODS (MIP) (AZ2052)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
ARMS Data Links and Data Dissemination										
1-07-01-OCO	U	18.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.7
MARSS Beyond Line of Sight in OEF										
01-08-003-OCO	U	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
MARSS 19 & 20 Integration & Spt										
03-11-003-OCO	U	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	41.7
ARMS & MARSS Comm/Sensor Upgrade										
01-12-003-OCO	U	0.0	0.0	39.5	0.0	0.0	0.0	0.0	0.0	39.5
Totals		23.2	41.7	39.5	0.0	0.0	0.0	0.0	0.0	104.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: MARSS 19 & 20 Integration & Spt [MOD 3] 03-11-003-OCO

MODELS OF SYSTEM AFFECTED: MARSS 19 & 20

DESCRIPTION / JUSTIFICATION:

Medium Altitude Reconnaissance and Surveillance Systems (MARSS) 19 and 20 are airborne systems that consist of aircraft and Prime Mission Equipment (PME) and will perform ISR operations. These systems will be integrated onto PM Fixed-Wing provided aircraft and include Imagery and Communications Intelligence (COMINT) sensors as well as line of sight and beyond line of sight communications equipment. It will allow for two backseat operators performing COMINT and imagery analysis and real time dissemination of the data from the aircraft. This effort will provide PME, integration, test and the deployment and initial sustainment of the systems in theater. PM Fixed Wing will be procuring two platform aircraft via Funding line A02700.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

2QFY11: Contract award for prime mission equipment
 3QFY12: Begin integration of initial platforms
 2QFY13: Completion of integration, testing, and deployment of Aircraft

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs								1	1											
Outputs										2										

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		2
Outputs																		2

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME: 0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): MARSS 19 & 20 Integration & Spt [MOD 3] 03-11-003-OCO

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E				41.7													
Procurement																		
Installation of Hardware																		
PME and Integration			2	28.0													2	28.0
Program Mgt & Test				2.2														2.2
Deployment and 4 mos ICS				11.5														11.5
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		41.7		0.0		0.0		0.0		0.0		0.0		0.0		41.7

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: ARMS & MARSS Comm/Sensor Upgrade [MOD 4] 01-12-003-OCO

MODELS OF SYSTEM AFFECTED: 10 ARMS and 10 MARSS

DESCRIPTION / JUSTIFICATION:

The ARMS and MARSS are airborne systems that consist of aircraft and Prime Mission Equipment (PME) and perform ISR operations. The PME includes an Electro Optic (EO) sensors with full motion video, Signals Intelligence (SIGINT) Sensors to acquire RF signals, and on-board and ground based processing to provide information for the warfighter. The aircraft also require communications to disseminate data to the ground processing facility for both processing of imagery and SIGINT data. The ARMS and MARSS aircraft will require sensor and communications upgrades to assist in maintaining relevancy with the advanced threats as well as target acquisition in theater. The SIGINT/COMINT and communications upgrade will be integrated to support 9 ARMS and 10 MARSS aircraft (total of 19 aircraft) plus the five ground processing facilities operating in theater. Upgrades will be installed in the field.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

2-3QFY12: Procurement of SIGINT/COMINT and communications systems upgrades for all aircraft (20 plus 3 spares)
 3QFY12-3QFY-13: Receipt of upgraded equipment for integration on aircraft
 4QFY12: Testing on surrogate aircraft
 3QFY12-3QFY13: Fielding/integration in theater

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	1	2	3	1	2	3		
Inputs														
Outputs														

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME: 0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): ARMS & MARSS Comm/Sensor Upgrade [MOD 4] 01-12-003-OCO

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E						39.5											
Procurement					23	35.0											23	35.0
Installation of Hardware																		
Testing						2.0												2.0
PM Support						2.5												2.5
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		0.0		39.5		0.0		0.0		0.0		0.0		0.0		39.5

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature CONSTANT HAWK (MIP) (AZ2054)
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Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	57.3	12.4		15.0	15.0						84.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	0.0	57.3	12.4		15.0	15.0						84.7
Initial Spares												
Total Proc Cost	0.0	57.3	12.4		15.0	15.0						84.7
Flyaway U/C												
Weapon System Proc U/C												

Description:

Constant Hawk (MIP). Constant Hawk (CH) is a persistent surveillance wide field of view Airborne Intelligence, Surveillance and Reconnaissance (AISR) system conducting Counter Improvised Explosive Device (IED) surveillance and forensic force protection missions in Iraq and Afghanistan. CH uses high resolution Electro Optic (EO) cameras mounted on manned aircraft to provide persistent surveillance of a designated Named Area of Interest (NAI). The aircraft loiters over a NAI for five to six hours collecting and storing imagery data. At the completion of the mission this data is processed on the ground and personnel perform forensic analysis of the data. The resulting intelligence related to IED attacks and other critical information is pushed out to commanders within hours of completion of the mission. The system currently only operates in daytime conditions. Several near term upgrades are planned for the system to include the addition of a real time data link (already working in Iraq), an Infra-Red (IR) sensor to allow for day and night operations, a geosteered high resolution spotter camera, imagery analyst forensic tools, ground processing capability improvements, and integrated secure dissemination.

Constant Hawk Iraq (CH-I): There are five CH aircraft in Iraq. The CH-I system is under the operational control of the Task Force Observe, Detect, Identify, and Neutralize (TF ODIN). CH-I is a unique capability from other assets within TF ODIN, and is the only asset performing forensic analysis. The five CH-I aircraft perform on average thirty-one (31) sorties per week. The CH-I system uses a Shorts SD3-60 non-pressurized aircraft. The CH-I system is contractor owned and operated. The government funds the contractor for full operations and support of the system in theater to include pilots, analysts, backseat operators, and maintenance personnel. The development of CH-I was primarily funded through Joint IED Defeat Organization (JIEDDO).

Constant Hawk-Afghanistan (CH-A): The Constant Hawk system is identical to the CH-I equipment except it is integrated on a pressurized, King Air 350 (C-12) aircraft. The system also includes a single CONUS based aircraft to support training and upgrades. The TFO-A system is contractor owned and operated and falls under the command and control of TF-ODIN Afghanistan.

Justification:

FY12 OCO procurement dollars in the amount of \$15.000 million will be used to purchase four Constant Hawk - A aircraft that are Contractor Owned-Government Operated (COGO).

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature CONSTANT HAWK (MIP) (AZ2054)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Constant Hawk - Iraq IR Sensors Upgrade										
1-09-01-OCO	U	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
Constant Hawk - Afghanistan										
2-10-00-OCO	U	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
Constant Hawk - Afghanistan IR Sensors Upgrade										
1-11-00-OCO		0.0	12.4	0.0	0.0	0.0	0.0	0.0	0.0	12.4
Constant Hawk - Afghanistan Aircraft										
1-12-00-OO	U	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	15.0
Totals		18.3	12.4	15.0	0.0	0.0	0.0	0.0	0.0	45.7

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Constant Hawk - Afghanistan IR Sensors Upgrade [MOD 3] 1-11-00-OCO

MODELS OF SYSTEM AFFECTED:

DESCRIPTION / JUSTIFICATION:

This funding will provide the integration of 3 improved day and night sensors for the CH systems in OEF. The sensors will provide increased field of regard/field of view as well as a substantial increase in sensor resolution.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

- 1QFY11: Contract for improved CH sensors
- 4QFY11: Delivery of new sensors
- 1QFY12: Integration and testing on test bed aircraft
- 2-3QFY12: Integration of sensors on aircraft in theater

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs							1	2													
Outputs							1	2													

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		3
Outputs																		3

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME:

0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Constant Hawk - Afghanistan IR Sensors Upgrade [MOD 3] 1-11-00-OCO

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E				12.4													
Procurement																		
Installation of Hardware																		
Sensor Procurement			3	5.1													3	5.1
Nonrecurring Engineering				2.2														2.2
Recurring Engineering/Testing				2.5														2.5
Integration				1.2														1.2
Spares				1.4														1.4
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		12.4		0.0		0.0		0.0		0.0		0.0		0.0		12.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Constant Hawk - Afghanistan Aircraft [MOD 4] 1-12-00-OO

MODELS OF SYSTEM AFFECTED: Constant Hawk-A Systems 1-4

DESCRIPTION / JUSTIFICATION:
This funding will provide for the purchase of four CH-A aircraft that are Contractor Owned - Government Operated (COGO).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):
2QFY12: Contract award for four aircraft

Installation Schedule

Pr Yr	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				
	Totals	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs						4															
Outputs						4															

Pr Yr	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					4
Outputs																					4

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 0 months PRODUCTION LEADTIME: 0 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Constant Hawk - Afghanistan Aircraft [MOD 4] 1-12-00-00

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement																		
Installation of Hardware																		
Aircraft Procurement					4	15.0											4	15.0
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		0.0		15.0		0.0		0.0		0.0		0.0		0.0		15.0

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
ABN ISR MODS (MIP) (AZ2056)

Program Elements for Code B Items:
Populate these P40's from other samples and the funding prof

Code:

Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	0.0	6.6	32.1									38.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	0.0	6.6	32.1									38.7
Initial Spares												
Total Proc Cost	0.0	6.6	32.1									38.7
Flyaway U/C												
Weapon System Proc U/C												

Description:
Airborne Intelligence, Surveillance and Reconnaissance (ISR) Mods support Overseas Contingency Operations (OCO) by providing a wide range of information exploitation and data dissemination capabilities to both deployed and non-deployed Airborne ISR systems. These system mods typically provide ground and other training support efforts that cross the spectrum of the ISR systems in use. Currently, this fleet of systems includes: Constant Hawk, a Quick Reaction Capability (QRC) Persistent Surveillance Counter Improvised Explosive Device (IED) system used in forensic force protection missions in both Operation Iraqi and Enduring Freedom (OIF/OEF); Aerial Reconnaissance Multi-Sensor System (ARMS) and Medium Altitude Reconnaissance and Surveillance systems (MARSS), which are two QRC systems employed in both OIF and OEF. ARMS and MARSS provide imagery sensors, Communications Intelligence (COMINT), and beyond line of sight (BLOS) communications equipment; Highlighter, a system currently operational in OIF, which provides high definition imagery for change detection. This mods line also supports the Aerial Reconnaissance Support Teams (ARST) in theater, which provide ground station support to Collect, Process, Exploit, Disseminate, and Archive Imagery Data.

Justification:
There is no FY12 budget request.

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature ABN ISR MODS (MIP) (AZ2056)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items: Populate these P40's from other samples and the funding prof	Code:	Other Related Program Elements:
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
ARST - Iraq Upgrades										
01-11-001-OCO	U	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5
ARST- Afghanistan Upgrades										
02-11-002-OCO	U	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	4.6
ARST - Additional Systems										
03-11-003-OCO	U	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
Totals		0.0	32.1	0.0	0.0	0.0	0.0	0.0	0.0	32.1

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: ARST - Additional Systems [MOD 3] 03-11-003-OCO

MODELS OF SYSTEM AFFECTED: Site 5 & 6

DESCRIPTION / JUSTIFICATION:

This funding provides for 2 additional Aerial Reconnaissance Support Teams (ARSTs) to support surge operations in Afghanistan. The ARSTs will provide for imagery collection, processing, and dissemination for Task Force ODIN and other combat units in theater. The ARSTs will contain up to twenty imagery analysts processing over eight feeds from various sources of data to include manned and unmanned vehicles. The ARSTs will house numerous pieces of COTS equipment and support interface to DCGS infrastructure. This will bring the total number of ARST ground sites in theater to six and provide a more robust coverage of the AOI.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

2QFY11 Award contract for 2 new ARSTs in OEF
 4QFY11 Field Site 5
 1QFY12 Field Site 6

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs				1	1															

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4			
Inputs														
Outputs														2

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME:

0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): ARST - Additional Systems [MOD 3] 03-11-003-OCO

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement																		
Installation of Hardware																		
ARST Sys H/W & S/W			2	10.0													2	10.0
Int & Test				12.0														12.0
Program Mgt				3.0														3.0
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		25.0		0.0		0.0		0.0		0.0		0.0		0.0		25.0

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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:
A05111 & PE23744 D12

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	6022.8	590.8	593.0	331.2		331.2	222.2	71.9	74.9	76.2	437.5	8420.5
Less PY Adv Proc	132.6	47.8										180.4
Plus CY Adv Proc	180.4											180.4
Net Proc P1	6070.6	543.0	593.0	331.2		331.2	222.2	71.9	74.9	76.2	437.5	8420.5
Initial Spares												
Total Proc Cost	6070.6	543.0	593.0	331.2		331.2	222.2	71.9	74.9	76.2	437.5	8420.5
Flyaway U/C												
Weapon System Proc U/C												

Description:

Program provides for an Apache Attack Helicopter fleet to meet the Remanufacture aircraft Army Acquisition Objective (AAO) of 634 of AH-64D tandem cockpit, twin engine, single main rotor Apache attack helicopters. Principal aircraft components include the Target Acquisition Designation Sight (TADS) housed in a turret on the nose of the AH-64 and consisting 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. Apache aircraft are armed with the Hellfire Antitank Missile, 2.75 inch rockets, and a 30mm gun capable of defeating armor.

The AH-64D Longbow Apache (LBA) aircraft incorporates the Longbow weapon system and provides the U.S. Army with a significant improvement in target acquisition and firepower effectiveness, increasing the survivability, lethality, and adverse weather fighting capabilities of the Apache. The AH-64D Longbow model is equipped with a modified AH-64 airframe, a Fire Control Radar (FCR)/ Radar Frequency Interferometer (RFI) mission kit, and "Fire and Forget" Longbow HELLFIRE missiles. Longbow War Replacement Aircraft (WRA), replenishments for combat attrition, were added to the Apache budget line in supplemental appropriations as follows: 13 in FY05, 14 in FY06, 20 in FY07, 5 in FY08, 12 in FY09, and 2 in FY10.

Modernization provides near term operationally driven improvements to the Apache fleet, focusing on reliability and safety (R&S) upgrades and correction of operational limitations. The Modernized TADS/PNVS (M-TADS/PNVS) program provides a second generation FLIR (SGF) sensor suite to the Apache fleet. The Internal Auxiliary Fuel System (IAFS)/Combo-Pak provides additional 100 gallon fuel tank for extended range plus a 30 MM 246 round ammo pack. Modifications specifically for the AH-64D include Selected Component Recapitalization, FCR Obsolescence, Trainer Upgrades, Light Weight Missile Launcher (LWML) and the Apache Block III (AB3). Modifications also include the remanufacture of an additional 117 AH-64A to the AH-64D Extended Block II Upgrade configuration via a single year contract, with options. In addition, funding also buys the remanufacture of 70 AH-64A to AH-64 Block II configuration aircraft for the National Guard (NG), FY09-FY11.

Justification:

FY 12 Base funding, in the amount of \$331.819 Million, supports Apache Sensors Life Extension and Upgrades, MISC Mods (\$5 Million or less), Apache Transformation, Apache Product Improvements, Fire Control Radar, Modernized TADS/PNVS, Apache Upgrades and Remanufacture, Light Weight Missile Launchers, Modernized Day Side Assembly, and Composite Main Rotor Blades.

All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
AH-64 APACHE MODS (AA6606)

Program Elements for Code B Items: Code: Other Related Program Elements:
A05111 & PE23744 D12

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	6022.8	590.8	593.0	331.2		331.2	222.2	71.9	74.9	76.2	437.5	8420.5
Less PY Adv Proc	132.6	47.8										180.4
Plus CY Adv Proc	180.4											180.4
Net Proc P1	6070.6	543.0	593.0	331.2		331.2	222.2	71.9	74.9	76.2	437.5	8420.5
Initial Spares												
Total Proc Cost	6070.6	543.0	593.0	331.2		331.2	222.2	71.9	74.9	76.2	437.5	8420.5
Flyaway U/C												
Weapon System Proc U/C												

Description:
Program provides for an Apache Attack Helicopter fleet to meet the Remanufacture aircraft Army Acquisition Objective (AAO) of 634 of AH-64D tandem cockpit, twin engine, single main rotor Apache attack helicopters. Principal aircraft components include the Target Acquisition Designation Sight (TADS) housed in a turret on the nose of the AH-64 and consisting 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. Apache aircraft are armed with the Hellfire Antitank Missile, 2.75 inch rockets, and a 30mm gun capable of defeating armor.

The AH-64D Longbow Apache (LBA) aircraft incorporates the Longbow weapon system and provides the U.S. Army with a significant improvement in target acquisition and firepower effectiveness, increasing the survivability, lethality, and adverse weather fighting capabilities of the Apache. The AH-64D Longbow model is equipped with a modified AH-64 airframe, a Fire Control Radar (FCR)/ Radar Frequency Interferometer (RFI) mission kit, and "Fire and Forget" Longbow HELLFIRE missiles. Longbow War Replacement Aircraft (WRA), replenishments for combat attrition, were added to the Apache budget line in supplemental appropriations as follows: 13 in FY05, 14 in FY06, 20 in FY07, 5 in FY08, 12 in FY09, and 2 in FY10.

Modernization provides near term operationally driven improvements to the Apache fleet, focusing on reliability and safety (R&S) upgrades and correction of operational limitations. The Modernized TADS/PNVS (M-TADS/PNVS) program provides a second generation FLIR (SGF) sensor suite to the Apache fleet. The Internal Auxiliary Fuel System (IAFS)/Combo-Pak provides additional 100 gallon fuel tank for extended range plus a 30 MM 246 round ammo pack. Modifications specifically for the AH-64D include Selected Component Recapitalization, FCR Obsolescence, Trainer Upgrades, Light Weight Missile Launcher (LWML) and the Apache Block III (AB3). Modifications also include the remanufacture of an additional 117 AH-64A to the AH-64D Extended Block II Upgrade configuration via a single year contract, with options. In addition, funding also buys the remanufacture of 70 AH-64A to AH-64 Block II configuration aircraft for the National Guard (NG), FY09-FY11.

Justification:
FY 12 Base funding, in the amount of \$331.230 Million, supports Apache Sensors Life Extension and Upgrades, MISC Mods (\$5 Million or less), Apache Transformation, Apache Product Improvements, Fire Control Radar, Modernized TADS/PNVS, Apache Upgrades and Remanufacture, Light Weight Missile Launchers, Modernized Day Side Assembly, and Composite Main Rotor Blades.

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011			
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft					P-1 Item Nomenclature AH-64 APACHE MODS (AA6606)					
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature					
Program Elements for Code B Items:					Code:		Other Related Program Elements: A05111 & PE23744 D12			
Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Apache Sensors Life Extension & Upgrade										
1-94-01-2005		156.4	37.4	10.6	11.5	12.9	13.2	17.8	135.3	395.1
AH-64A MISC Mods \$5M or less (no P3a set)										
OSIP		736.2	6.4	9.0	5.9	7.2	7.2	7.8	54.5	834.2
Apache Transformation (no P3a set)										
OSIP		51.1	0.0	4.0	0.0	0.0	0.0	0.0	0.0	55.1
Modernized TADS/PNVs (M-TADS)										
1-01-01-0022		917.8	25.1	50.8	0.0	0.0	0.0	0.0	0.0	993.7
Video from UAS Interoperability Teaming (VUIT-2)										
0-00-00-0000		91.9	170.6	0.0	0.0	0.0	0.0	0.0	0.0	262.5
Apache Product Improvements										
OSIP		277.3	16.4	54.3	35.2	27.8	11.5	5.7	62.5	490.7
AH-64D Longbow War Replacement Aircraft (WRA)										
0-00-00-0000		412.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	412.8
Lightweight Missile Launcher (LWML)										
0-00-00-0000		0.0	14.9	10.6	22.1	14.8	15.1	14.7	0.0	92.2
Apache Upgrades and Remanufacture										
OSIP		2361.6	200.6	60.9	55.8	9.2	27.9	26.7	111.8	2854.5
Modernized Day Side Assembly (M-DSA), Phase1										
0-00-00-0000		0.0	18.5	102.4	74.7	0.0	0.0	0.0	0.0	195.6
Fire Control Radar (FCR)										
0-00-00-0000		91.5	14.1	28.6	0.0	0.0	0.0	0.0	0.0	134.2
Internal Auxiliary Fuel System (IAFS)										
OSIP		118.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	118.2
Apache Block III										
OSIP		11.1	29.3	0.0	0.0	0.0	0.0	0.0	0.0	40.4
Apache Training Aids, Devices, Simulators & Simul										
0-00-00-0000		31.6	59.7	0.0	17.0	0.0	0.0	3.5	73.4	185.2
Apache Post Production Organic Support										
OSIP		18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.3

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature AH-64 APACHE MODS (AA6606)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements: A05111 & PE23744 D12
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Totals		5275.8	593.0	331.2	222.2	71.9	74.9	76.2	437.5	7082.7

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Apache Sensors Life Extension & Upgrade [MOD 1] 1-94-01-2005

MODELS OF SYSTEM AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

Operational and logistical improvement. This is a critical stage in the Longbow remanufacturing effort as it produces a single configuration Modernized Target Acquisition Designation Sight (M-TADS) for AH-64 Extended Block II Upgrade (117 aircraft) and Longbow Apache Block III (AB3). This mod facilitates maintainers' access to Target Acquisition Designation Sight/Pilot Night Vision Sensor/MTADS (TADS/PNVs/MTADS) systems thereby allowing for accelerated application of outstanding Engineering Change Proposals (ECPs). Additionally, satisfies program growth and life extension requirements and provides for offsite contractor support for upgrade/integration of hardware in the TADS/PNVs/MTADS. Funding is required throughout the AB3 program to overhaul sensors/ TADS Electronic Display and Controls (TEDACs), etc., through the Arizona Support Center (ASC) facility to the proper configuration for the AB3 aircraft. The funding for Visible Near Sight (V/N Sight) will provide accelerated capability to the field for blending near/visible infrared with the FLIR. Funding will satisfy emerging requirements for zero timing all Apache Sensors to include TADS/PNVs, MTADS, Fire Control Radar (FCR), Radar Frequency Interferometer (RFI), and TEDAC.

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

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Initial contract award was Dec 95. Date of first delivery was Jun 96.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	642	9	9	9	9	12	11	11	11	12	11	8	7	12	12	12	12	12	12	12	10
Outputs	621	9	9	9	9	15	14	14	14	12	11	11	11	12	12	12	12	12	12	12	12

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	12	12	12	12														903
Outputs	12	12	12	12														903

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 2 months PRODUCTION LEADTIME: 1 months
 Contract Dates: FY 2012 - Nov 11 FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - Dec 11 FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Apache Sensors Life Extension & Upgrade [MOD 1] 1-94-01-2005

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E		156.4		37.4		10.6		11.5		12.9		13.2		17.8		135.3		395.1
Procurement																		
Installation of Hardware																		
Kit Quantity	633	106.0	36	8.0	45	10.6	45	11.5	48	12.9	48	13.2	48	17.8		135.3	903	315.3
Equipment (GFE)		44.9																44.9
Visible Near Infrared (V/NIR)				28.6														28.6
Other		5.5		0.8														6.3
FY 2009 & Prior Equip -- Kits	621		12															633
FY 2010 Equip -- Kits																		
FY 2011 Equip -- Kits			24		12													36
FY 2012 Equip -- Kits					45													45
FY 2013 Equip -- Kits							45											45
FY 2014 Equip -- Kits									48									48
FY 2015 Equip -- 48 Kits											48							48
FY 2016 Equip -- Kits													48					48
Total Installment	621	0.0	36	0.0	57	0.0	45	0.0	48	0.0	48	0.0	48	0.0	0	0.0	903	0.0
Total Procurement Cost		156.4		37.4		10.6		11.5		12.9		13.2		17.8		135.3		395.1

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Modernized TADS/PNVs (M-TADS) [MOD 4] 1-01-01-0022

MODELS OF SYSTEM AFFECTED: AH-64D Apache Helicopter

DESCRIPTION / JUSTIFICATION:

The Modernized Target Acquisition & Designation Sight/Pilot Night Vision Sensor (M-TADS/PNVs) modification program is the Army initiative to provide 2nd Generation Forward Looking Infrared (SGF)(FLIR) sensors for the Apache fleet. Suite modifications encompass: M-TADS/PNVs Line Replaceable Units (LRUs), TADS Electronic Display and Control (TEDAC) assemblies, and the Integrated Helmet Display Sight System (IHDSS) assemblies. The SGF system improves overall pilotage and enhances the pilot's ability to engage targets during night and bad weather. Several specific improvements include, increased detection range, enhanced recognition and target identification, higher resolution and sensitivity for safety and pilotage performance (especially in adverse weather), better identifying of friend/foe during hostilities, and increased reliability and reduction in O&S costs. The complementary TEDAC and IHDSS upgrade reduces operating costs, increases cockpit space, and exploits the expanded capability of the M-TADS/PNVs. This exhibit identifies funding for 565 of a total of 706 M-TADS production units and associated displays (including 95 units for the NG).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

May 10 -- MTADS/PNVs Lot 7 Production Contract Award (NG3a)
 Dec 10 -- Contract Option for NG3b
 Dec 11 -- Projected Lot 8 Production Contract Award (NG4)

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	446	27	6	7	13	11	10	10		6	9	6	6	6	2						
Outputs	446	27	6	7	13	11	10	10		6	9	6	6	6	2						

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		565
Outputs																		565

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 2 months PRODUCTION LEADTIME: 24 months
 Contract Dates: FY 2012 - Dec 11 FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - Oct 13 FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Modernized TADS/PNVS (M-TADS) [MOD 4] 1-01-01-0022

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E		917.8		25.1		50.8											
Procurement																		
Installation of Hardware																		
SDU		1.4																1.4
Equipment	530	785.7	12	25.1	23	50.8											565	861.6
Equipment, Nonrecurring		21.3																21.3
TEDAC/IHDSS		67.2																67.2
Other Support		42.2																42.2
FY 2010 & Prior Equip -- Kits	446		53		31													530
FY 2011 Equip -- Kits							12											12
FY 2012 Equip -- Kits							15		8									23
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
TC Equip- 0 Kits																		
Total Installment	446	0.0	53	0.0	31	0.0	27	0.0	8	0.0	0	0.0	0	0.0	0	0.0	565	0.0
Total Procurement Cost		917.8		25.1		50.8		0.0		0.0		0.0		0.0		0.0		993.7

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Video from UAS Interoperability Teaming (VUIT-2) [MOD 5] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

Funding total includes \$91.900 Million FY10 supplemental funding and \$170.600 Million FY11 funding to procure 8 BN sets of 24 each plus spares of Apache Video Unmanned Aircraft System (UAS) Interoperability Teaming - Level II (Apache VUIT-2) capability to support Overseas Contingency Operations (OCO). VUIT-2 gives Apache pilots the capability to receive off platform sensor video in the cockpit and transmit sensor data to the ground or other similarly equipped air platforms. This capability will improve situational awareness and enable real-time intelligence sharing. The complete modification includes UAS Level II interoperability and Apache sensor video transmission to the ground capabilities.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Contract award -- April 2010
Proposed contract award -- February 2011

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs				24	24			36	36	36	36									
Outputs				24	24			36	36	36	36									

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		192
Outputs																		192

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 1 months PRODUCTION LEADTIME: 17 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Video from UAS Interoperability Teaming (VUIT-2) [MOD 5] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		91.9		170.6														
Procurement																			
Installation of Hardware																			
VUIT-2 -- FY10 OCO	48	91.9																48	91.9
VUIT-2 -- FY11 OCO			144	170.6														144	170.6
Equipment																			
Data																			
Training Equipment																			
Support Equipment																			
FY 2010 & Prior Equip -- Kits			24		24													48	
FY 2011 Equip -- Kits					36		108											144	
FY 2012 Equip -- Kits																			
FY 2013 Equip -- Kits																			
FY 2014 Equip -- Kits																			
FY 2015 Equip -- Kits																			
FY 2016 Equip -- Kits																			
TC Equip- Kits																			
Total Installment	0	0.0	24	0.0	60	0.0	108	0.0	0	0.0	0	0.0	0	0.0	0	0.0	192	0.0	
Total Procurement Cost		91.9		170.6		0.0		0.0		0.0		0.0		0.0		0.0			262.5

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Apache Product Improvements [MOD 6] OSIP

MODELS OF SYSTEM AFFECTED: AH-64 Apache Helicopter

DESCRIPTION / JUSTIFICATION:

Apache Mods and Recap provides near term improvements to the Apache fleet and focuses on reliability & safety (R&S) upgrades and operational deficiencies. The R&S mods and selected component recapitalization are being accomplished by the reman line, field retrofits, and through spares. Improvements focus on main transmission, rotor blades, gear boxes, and hydraulic systems. The program includes select Task Force Hawk initiatives (i.e., HF Radio or Satcom and New Digital Video Recorder). The selected component recap fixes were identified through a Sandia National Lab analysis of components coupled with the results of a nonrecurring engineering analysis of components. These assessments ensure that the recap resources are focused on the highest payoff components. Condition Based Maintenance (CBM) and expansion of the Modernized Signal Processing Unit (MSPU) capabilities will continue to evolve, reducing ownership costs and improving the maintenance posture and burden on the Warfighter. Composite Main Rotor Blade (CMRB) will allow the Block II Apache to take advantage of the weight reduction and improved performance over the legacy metal main rotor blades.

FY12 Base procurement dollars in the amount of \$54.300 million support selected component recap and insertion of R&S mods for the Apache fleet. Funding will procure component overhauls to convert AH-64A model Recap kits to AH-64D model kits in support of the National Guard. Also funding will improve safety, maximize marginal return on recapped components, enhance aircraft performance by increasing unscheduled mean time between removal (MTBR) for selected components, and reduce the average fleet age. Allows for procurement of the CMRB for Block II aircraft and CBM hardware and services. Extended year funding provides for continued reliability and safety improvements, gains synergy from future programs, and bridges the gap to Block III future requirements.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Jan 07 - FFP Contract Option,
 Jul 07 - FFP Contract restructure to support the 96 additional aircraft
 Dec 07 - CBM contract
 Jul 09 - CBM contract option (OCO)

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs	972									27	27	27	27			10						43	
Outputs	972									27	27	27	27			10						43	

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Inputs																							1133
Outputs																							1133

METHOD OF IMPLEMENTATION: Contract - CBM ADMINISTRATIVE LEADTIME: 2 months PRODUCTION LEADTIME: 12 months
 Contract Dates: FY 2012 - Nov 11 FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - Dec 12 FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Apache Product Improvements [MOD 6] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E		277.3		16.4		54.3		35.2		27.8		11.5		5.7		62.5	
Procurement																		
Installation of Hardware																		
CBM Hardware/VMEP	368	13.1			60	4.5				24.3		10.4		5.7		62.5	428	120.5
VMEP (Jt Conf Add)		3.0																3.0
Other Recap		37.6		2.2		8.3		2.4										50.5
NG Recap Support		28.5		10.4		20.2												59.1
R&S Equipment (Kits)	655	108.2															655	108.2
CBM Services		41.6		3.8		4.2		3.5		3.5		1.1						57.7
Non-recurring engineering		11.0																11.0
CBM Kits -- FY09 OCO	143	10.8																143 10.8
Composite Main Rotor Blade					10	17.1	43	28.0									53	45.1
ship sets																		
FY 2010 & Prior Equip -- Kits	772	19.2																772 19.2
FY 2011 Equip -- Kits	100	1.8																100 1.8
FY 2012 Equip -- Kits	100	2.5																100 2.5
FY 2012 Equip -- 60 CBM							60	1.3									60	1.3
FY 2012 CMRB Ship Sets									10									10
FY 2013 Equip -- Kits							48											48
FY 2013 CMRB Ship Sets											43							43
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
TC Equip -- Kits																		
Total Installment	972	23.5	0	0.0	0	0.0	108	1.3	10	0.0	43	0.0	0	0.0	0	0.0	1133	24.8
Total Procurement Cost		277.3		16.4		54.3		35.2		27.8		11.5		5.7		62.5		490.7

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Lightweight Missile Launcher (LWML) [MOD 8] 0-00-00-0000

MODELS OF SYSTEM AFFECTED:

DESCRIPTION / JUSTIFICATION:

The M299A1 missile launcher is a lightweight upgrade to the current launcher used on the AH-64D. The new launcher addresses obsolescence issues and provides the additional capability of being able to fire all current Hellfire missiles and future missiles currently under development.

FY12 funding will be used to procure 160 launchers, which will support NG1-3 fielding of Attack Battalions. Per Basis of Issue Plan, 4 Launchers are required per helicopter (4 LWML = 1 ship set/aircraft).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Contract Award (managed by PM JAMS) Dec 2010

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs		57	57	58	58	40	40	40	40	81	81	82	82	54	54	54	54	54	54	54	54
Outputs						57	57	58	58	40	40	40	40	81	81	82	82	54	54	54	54
		FY 2016				FY 2017				FY 2018				FY 2019				To	Totals		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
Inputs		50	50	50	50														1348		
Outputs		54	54	54	54	50	50	50	50										1348		

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 3 months PRODUCTION LEADTIME: 10 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Lightweight Missile Launcher (LWML) [MOD 8] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E				14.9		10.6		22.1		14.8		15.1		14.7				
Procurement																			
Installation of Hardware																			
LWML Procurement			230	14.9	160	10.6	326	22.1	216	14.8	216	15.1	200	14.7				1348	92.2
Installation Kits																			
Installation Kits, Nonrecurring																			
Equipment																			
Equipment, Nonrecurring																			
Engineering Change Orders																			
Data																			
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
FY 2010 & Prior Equip -- Kits					230														230
FY 2011 Equip -- Kits							160												160
FY 2012 Equip -- Kits									326										326
FY 2013 Equip -- Kits											216								216
FY 2014 Equip -- Kits												216							216
FY 2015 Equip -- Kits													216						216
FY 2016 Equip -- Kits															200				200
TC Equip- Kits																			
Total Installment	0	0.0	0	0.0	230	0.0	160	0.0	326	0.0	216	0.0	216	0.0	200	0.0		1348	0.0
Total Procurement Cost		0.0		14.9		10.6		22.1		14.8		15.1		14.7		0.0			92.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Apache Upgrades and Remanufacture [MOD 9] OSIP

MODELS OF SYSTEM AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

Funding for the AH-64 Extended Block II+ Upgrade supports the remanufacture of additional AH-64A aircraft to the AH-64D configuration. Additional aircraft will field AH-64Ds to three National Guard battalions that would otherwise remain as AH-64A units. Funding line also includes funding to update aircraft systems and associated software.

AH-64D remanufacturing efforts generate greater attack helicopter combat power for OEF/OND and accelerates Reserve Component by cascading Longbow Block I aircraft directly to United States Army Reserve and Army National Guard Apache battalions. Funding the obsolescence requirement promotes increased readiness and decreases total ownership cost of the existing Apache fleet. Critical software enhancements based on emerging requirements enable Apache commanders and aircrews to better perform their combat mission. Likewise these improvements provide critical safety improvements to protect the aircrew from harm and reduce the loss of aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Contract Options (FY 08-10) -- Extended Block 2 (EBII+)
 Contract Awards, Dec 09
 NG Contract Award, Dec 10

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs 176	2	9	2																	
Outputs 129	12	12	12	11	2	9	2													

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4			
Inputs													189	
Outputs													189	

METHOD OF IMPLEMENTATION: Firm Fixed Price ADMINISTRATIVE LEADTIME: 3 months PRODUCTION LEADTIME: 12 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Apache Upgrades and Remanufacture [MOD 9] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
Blk II Reman Aircraft	116	1276.4	1	16.9													117	1293.3
NG Aircraft Procurement	60	709.1	12	145.5		13.4		20.6									72	888.6
System / Software Upgrade						23.3					24.3		23.2		68.5			139.3
Obsolescence						18.3		11.1		9.2		3.6		3.5		43.3		89.0
Long Lead		136.5																136.5
NG Launchers		20.4																20.4
NG MEP		71.9		15.2		5.9		24.1										117.1
Other Support		147.3		23.0														170.3
FY 2010 & Prior Equip -- Kits	129		35															164
FY 2011 Equip -- Kits			12															12
FY 2011 NG Equip -- 12 a/c					12													12
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits					1													1
FY 2015 Equip -- Kits																		
Total Installment	129	0.0	47	0.0	13	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	189	0.0
Total Procurement Cost		2361.6		200.6		60.9		55.8		9.2		27.9		26.7		111.8		2854.5

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Modernized Day Side Assembly (M-DSA), Phase1 [MOD 10] 0-00-00-0000

MODELS OF SYSTEM AFFECTED:

DESCRIPTION / JUSTIFICATION:

Funding totals include \$195.514 Million in FY 11 to FY 13 to procure 288 Laser Rangefinder/Designator (M-LRFD) with spares to support the Apache AH-64 fleet. The M-LRFD unit will replace the obsolete Laser Transceiver Unit (LTU) to mitigate ongoing risks, improve reliability and maintainability, and reduce O&S costs associated with the LTU and the Laser Electronics Unit (LEU) which contain 30 year old technology. The M-LRFD provides laser ranging, designation and target tracking capable by holding a laser beam on a stationary or moving point target for handoff. In addition, the M-LRFD will enable the Block III to be ready to meet technology insertion production timelines which the current 1970s technology does not.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Proposed contract award - September 2011

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs											1	6	10	26	45	52	58	60	30		
Outputs													17	26	45	52	58	60	30		

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					288
Outputs																					288

METHOD OF IMPLEMENTATION:

Contract

ADMINISTRATIVE LEADTIME:

6 months

PRODUCTION LEADTIME:

30 months

Contract Dates:

FY 2012 - Sep 11

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 - Mar 13

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Modernized Day Side Assembly (M-DSA), Phase1 [MOD 10] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RD&E				18.5		102.4		74.7										195.6
Procurement																			
Installation of Hardware																			
Equipment			11	18.5	147	102.4	130	74.7										288	195.6
Training Equipment																			
Engineering Change Orders (ECO)																			
Support Equipment																			
Other																			
FY 2010 & Prior Equip -- Kits							11											11	
FY 2011 Equip -- Kits							6		141									147	
FY 2012 Equip -- Kits									40		90							130	
FY 2013 Equip -- Kits																			
FY 2014 Equip -- Kits																			
FY 2015 Equip -- Kits																			
FY 2016 Equip -- Kits																			
TC Equip- Kits																			
Total Installment	0	0.0	0	0.0	0	0.0	17	0.0	181	0.0	90	0.0	0	0.0	0	0.0	288	0.0	
Total Procurement Cost		0.0		18.5		102.4		74.7		0.0		0.0		0.0		0.0		195.6	

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Fire Control Radar (FCR) [MOD 11] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: AH-64 Apache

DESCRIPTION / JUSTIFICATION:

The FCR is a monopulse, coherent Doppler radar system. It is a multimode system capable of acquiring moving and stationary targets in ground and air environments. It also provides navigational and piloting information on the surrounding terrain. The FCR, in combination with the Radio Frequency (RF) missile, provides the Longbow Apache with fire-and-forget capability. The FCR includes a Mast Mounted Assembly (MMA), Low Power Radio Frequency (LPRF), Programmable Signal Processor (PSP), and RFI Line Replaceable Unit (LRU). This provides the aircrew with the capability to detect and locate moving and stationary ground targets, helicopters, and fixed wing aircraft, even when operating in limited adverse weather or minimum visibility conditions. The mast-mounted Radar Frequency Interferometer (RFI) provides threat emitter warning and azimuth direction finding/cueing. Target information is sent to the Weapons Processor (WP). Target coordinates are sorted and sent to the Display Processor (DP) for target symbology presentation on the FCR page or Tactical Situation Display (TSD) page. Target and threat information can also be selected for FCR symbology overlay on TADS/PNVIS video. This exhibit identifies funding for 36 FCRs with RFI for the National Guard Bureau aircraft in FY 09-12.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Oct 09 - FCR/RFI Production Contract Award, with Options to follow.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs					7	8	6	3			2	1			5	4				
Outputs					7	8	6	3			2	1			5	4				

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs																					36
Outputs																					36

METHOD OF IMPLEMENTATION: Contract **ADMINISTRATIVE LEADTIME:** 4 months **PRODUCTION LEADTIME:** 24 months
Contract Dates: FY 2012 - Jan 12 FY 2013 - FY 2014 -
Delivery Dates: FY 2012 - Jan 14 FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Fire Control Radar (FCR) [MOD 11] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		91.5		14.1		28.6												
Procurement																			
Installation of Hardware																			
Kit Quantity																			
Installation Kits	24	91.5	3	14.1	9	28.6												36	134.2
Equipment																			
Other																			
FY 2010 & Prior Equip -- Kits					24													24	
FY 2011 Equip -- Kits							3											3	
FY 2012 Equip -- Kits									9									9	
FY 2013 Equip -- Kits																			
FY 2014 Equip -- Kits																			
FY 2015 Equip -- Kits																			
FY 2016 Equip -- Kits																			
TC Equip- Kits																			
Total Installment	0	0.0	0	0.0	24	0.0	3	0.0	9	0.0	0	0.0	0	0.0	0	0.0	36	0.0	
Total Procurement Cost		91.5		14.1		28.6		0.0		0.0		0.0		0.0		0.0			134.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Apache Block III [MOD 13] OSIP

MODELS OF SYSTEM AFFECTED: AH-64D Longbow Apache

DESCRIPTION / JUSTIFICATION:
 AH-64A to Block III (NRE): The evolutionary system improvement process that has kept the Apache AH-64 attack helicopter a viable combat multiplier for over 20 years has moved from the original AH-64A through two block improvement programs of the AH-64D Longbow (Block I and Block II). The most significant modification and technological change was from the AH-64A to the AH-64D Block I configuration. The plan to remanufacture AH-64A aircraft directly into the AB3 configuration will require design work and the associated drawing changes not originally planned.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):
 Advance Procurement (LRIP) Lot 1 Contract Award Production - 4th QTR FY09

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

	FY 2016				FY 2017				FY 2018				FY 2019				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: 0 months PRODUCTION LEADTIME: 0 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Apache Block III [MOD 13] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E		11.1		29.3														40.4
Procurement																		
Installation of Hardware																		
Long Lead Items		11.1																11.1
A to Block III (NRE)				29.3														29.3
A to Block III																		
FY 2010 & Prior Equip -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		11.1		29.3		0.0		0.0		0.0		0.0		0.0		0.0		40.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Apache Training Aids, Devices, Simulators & Simul [MOD 14] 0-00-00-0000

MODELS OF SYSTEM AFFECTED:

DESCRIPTION / JUSTIFICATION:

AH-64D aircrew TADSS are the Longbow Crew Trainer (LCT) for individual/team training tasks, and the AH-64D manned modules within the Aviation Combined Arms Tactical Trainer (AVCATT) for collective training. Maintenance Training Devices (MTD) for institutional training of AH-64D Military Operational Specialties (MOS) 15R and 15Y at US Army Aviation Logistics School, Ft. Eustis comprise a range of thirteen (13) different devices, including the Multiplex, Avionics, Visionics, Weapons & Electrical Systems Trainer (MAVWEST-L7), Airframe, Engine, and Drivetrain Systems Trainer (AEDST-L6), and eleven (11) different subsystem Part Task Trainers (PTT).

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Jul 09 -- Acceptance testing completed, first IPASPTT and first Wing PTT
 Jul 09 -- Contract award, LCT #31
 Aug 09 -- Acceptance testing completed, LCT #26 (25th USG LCT)
 Feb 10 -- First Gun PTT fielded
 Oct 10 -- LCT #31 Firm Fixed Price (FFP) Award
 Mar 11 -- Projected fielding, first Multiplex PTT
 Jun 11 -- Contract Award, LCT #32
 Jun 12 -- Contract Award, LCT #33
 Dec 13 -- Contract Award, LCT #34

Installation Schedule

Pr Yr	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals	2	13	20	18		1			1											
Inputs																				
Outputs				1		5	6	13	20	8				1					1	

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs			3														110	168
Outputs							1	2									110	168

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 3 months PRODUCTION LEADTIME: 24 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Apache Training Aids, Devices, Simulators & Simul [MOD 14] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement																		
Installation of Hardware																		
LCT (NG/USAACE/WAATS)	2	31.6	2	35.3			1	17.0									5	83.9
Maintenance PTT																		
System TADSS			50	24.4								3	3.5	110	73.4	163	101.3	
FY 2010 & Prior Equip -- Kits			1		24		28		1		1			110		165		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits														3		3		
FY 2017 Equip -- Kits																		
TC Equip- Kits																		
Total Installment	0	0.0	1	0.0	24	0.0	28	0.0	1	0.0	1	0.0	0	0.0	113	0.0	168	0.0
Total Procurement Cost		31.6		59.7		0.0		17.0		0.0		0.0		3.5		73.4		185.2

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	10665.7	136.5	149.1	79.7		79.7	169.2	255.0	276.8	472.2	6612.2	18816.4
Less PY Adv Proc	1119.4	49.5										1168.9
Plus CY Adv Proc	1168.9											1168.9
Net Proc P1	10715.2	87.0	149.1	79.7		79.7	169.2	255.0	276.8	472.2	6612.2	18816.4
Initial Spares	9839.8										1082874.5	1092714.3
Total Proc Cost	20555.0	87.0	149.1	79.7		79.7	169.2	255.0	276.8	472.2	1089486.7	1111530.7
Flyaway U/C												
Weapon System Proc U/C												

Description:

The CH-47 Chinook is a twin-turbine, tandem-rotor, heavy lift transport helicopter with a useful load of up to 25,000 pounds. As the Army's only heavy lift helicopter, the mission of the CH-47 is to transport troops (including air assault), supplies, weapons, and other cargo in general support operations. The CH-47 is vital to the Overseas Contingency Operations and Homeland Security needs of our nation. Secondary missions include medical evacuation, aircraft recovery, parachute drops, disaster relief, and search and rescue. These aircraft are fielded to heavy helicopter companies and Special Operations Aviation. The major modifications are Engine Improvement to include 1553 Data Bus Integration, Maintenance Training Devices, Transformation Sets, Kits and Outfits, M24A1 Window/Door Gun Mount, Adjustable Pitch Change Link, Crashworthy Seats, Hook Load Measurement System, Cargo On/Off Loading System, Aircraft Component Parts-Marking, Ballistic Protection Systems, Rotor Blades, and Performance Enhancements to equip new Chinook units forming under the Army's Aviation Transformation Plan.

Justification:

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011			
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft					P-1 Item Nomenclature CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)					
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature					
Program Elements for Code B Items:					Code:		Other Related Program Elements: RDTE PE 0203744A			
Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Engine Filtration System										
1-93-01-0807	Operational	43.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	43.8
Engine Improvement										
1-96-01-0828	Operational	2603.3	23.0	20.9	19.7	17.4	20.7	21.1	132.1	2858.2
CH-47 D to F Conversion										
0-00-00-0000	Operational	4155.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4155.1
Maintenance Training Devices (MTD)										
0-00-00-0000		31.2	7.0	6.4	7.1	0.7	0.0	0.0	0.0	52.4
Transformation Sets, Kits and Outfits										
0-00-00-0000	Safety	65.3	12.3	6.3	15.0	3.2	0.0	0.0	0.0	102.1
M24A1 Window/Door Gun Mount										
0-00-00-0000	Operational	14.3	0.0	7.8	8.4	8.7	0.0	0.0	0.0	39.2
Adjustable Pitch Change Link										
0-00-00-0000		3.3	1.6	4.1	4.5	12.4	11.3	9.8	2.3	49.3
Crashworthy Pilot Seats										
0-00-00-0000		0.0	0.0	4.4	4.5	4.6	7.0	14.2	20.6	55.3
AVCATT										
0-00-00-0000		9.9	0.0	0.0	6.4	12.5	0.0	0.0	0.0	28.8
CH-47 MISC Mods \$5M or Less										
0-00-00-0000	Operational	52.2	1.3	0.7	9.1	7.7	7.5	10.1	14.4	103.0
Cargo On/Off Loading System										
0-00-00-0000		33.3	40.3	17.8	14.3	22.1	30.3	32.1	83.2	273.4
Aircraft Component Parts-Marking										
0-00-00-0000		21.0	0.0	0.0	2.7	2.9	2.8	2.9	0.0	32.3
Ballistic Protection System (BPS)										
0-00-00-0000		10.7	19.7	4.9	15.5	15.9	0.0	0.0	0.0	66.7
New Equipment Training (NET)										
0-00-00-0000		6.1	30.8	0.0	0.0	0.0	0.0	0.0	0.0	36.9
Improved Rotor Blades										
0-00-00-0000		0.0	0.0	0.0	28.4	137.5	165.1	100.3	894.8	1326.1

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011			
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft					P-1 Item Nomenclature CH-47 CARGO HELICOPTER MODS (MYP) (AA0252)					
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature					
Program Elements for Code B Items:					Code:		Other Related Program Elements: RDTE PE 0203744A			
Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Maintenance Panel Upgrade										
0-00-00-0000		0.0	0.0	0.0	4.7	0.0	6.5	6.6	0.0	17.8
Special Operations Aircraft Commonality										
0-00-00-0000		0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	8.9
Advanced Chinook Transmissions										
0-00-00-0000		0.0	0.0	0.0	0.0	0.0	0.0	168.0	0.0	168.0
Advanced Rotor Torque Management										
0-00-00-0000		0.0	0.0	0.0	0.0	0.0	0.0	86.6	0.0	86.6
Cargo Platform Health Environment Cond Based Maint										
0-00-00-0000		0.0	0.0	0.0	10.1	10.1	7.1	5.0	5.0	37.3
TADSS Life Cycle Management Plan										
0-00-00-0000		0.0	0.0	0.0	12.7	11.8	18.4	15.5	13.7	72.1
Totals		7049.2	145.2	73.3	163.1	267.5	276.7	472.2	1166.1	9613.3

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Engine Improvement [MOD 2] 1-96-01-0828

MODELS OF SYSTEM AFFECTED: CH-47D, CH-47F and MH-47 G

DESCRIPTION / JUSTIFICATION:

Type of Improvement: Improved Operational Capability, Improved reliability and lower Operational/Support Costs. T55-GA-714A engine improvements will increase reliability, increase engine time on wing and lower operational and support costs. Upgrades include a new Electronic Control Unit (ECU). The Electronic Control Unit will replace the Digital Electronic Control Unit (DECU) currently used which will improve reliability and add enhanced features. The Next Generation Torque System will address torque errors associated with the current system. Torque accuracy of the current system is plus or minus 5.9 percent, and the new system is designed to meet plus or minus 2.3 percent. This will lower operational and support costs and increase torque kit reliability. In addition, the 1553 Electronic Control Unit Software Upgrade will provide communication capability using the 1553 Data Bus hardware on the ECU. This software will also provide further enhancements to increase reliability and lower operational and support costs. The engine programs will also provide upgrades to the tools and ground support equipment needed for the T55-GA-714A engine upgrade program. The N1/N2 Drive Line Redesign will improve the safety and reliability by reducing the number of components needed and improving or eliminating many of the chip causing components. Installation schedules not listed because of numerous mods with varied schedules.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Electronic Control Unit Upgrade: ECP Delivery, Jan 2011. First Production Unit Delivery, Mar 2011.
 Next Generation Torque System: Qual Test Complete, 2Q 2011. ECP Delivery 2Q 2011. Contract Award for Kits, 4Q 2011. 1553 ECU Software Upgrade: Qual Testing Complete, 2Q 2011. ECP Delivery, 2Q 2011. Ground Support Software Complete, 3Q 2011. Production Contract Award, 1Q 2012. N1/N2 Drive Line Re-Design: Qual Testing Complete, 3Q 2011. ECP Delivery, 4Q 2011. Production Contract Award, 2Q 2012.
 First Kit Delivery, 4Q 2011. ECU Software Upgrade Production Contract Award, 1Q 2012.
 T55 P3 Check Valve: ECP and Kits Production Contract Award, 4Q 2008.

Installation Schedule

Pr Yr	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

FY 2016	FY 2017				FY 2018				FY 2019				To Complete	Totals
	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 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Engine Improvement [MOD 2] 1-96-01-0828

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Software																		
New Engines	1250	2495.0															1250	2495.0
T55 Engine Control Unit Prog (ECU)	427	29.5	240	15.5	10	0.4										677	45.4	
P3 Check Value	373	4.9														373	4.9	
Digital ECU Remote Readout	101	11.4	23	0.7												124	12.1	
Next Generation Torque System	260	9.1	144	5.4	130	4.8	125	4.7	125	4.8	200	7.8	200	7.9	451	18.2	1635	62.7
Logistics		50.6															50.6	
ECU Test Stand						0.5											0.5	
ECU Test Kit					100	1.1	100	1.1								200	2.2	
Flight Line Test Set					100	4.2	100	4.3								200	8.5	
Replacement																		
1553 Software Upgrade					250	0.7										250	0.7	
N1/N2 Drive Line					52	5.5	75	8.0	108	11.8	108	12.0	108	12.1	924	107.5	1375	156.9
PM Admin Support		2.8		1.4		0.8		0.9		0.8		0.9		1.1		6.4		15.1
1553 Software Upgrade 2009 \$ Prior -- Kits FY 2010 -- Kits FY 2011 Equip -- Kits FY 2012 Equip -- Kits FY 2013 Equip -- Kits FY 2014 Equip -- Kits FY 2015 Equip -- Kits FY 2016 Equip -- Kits TC Equip- Kits					200	2.9	50	0.7									250	3.6
Total Installment	0	0.0	0	0.0	200	2.9	50	0.7	0	0.0	0	0.0	0	0.0	0	0.0	250	3.6
Total Procurement Cost		2603.3		23.0		20.9		19.7		17.4		20.7		21.1		132.1		2858.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Maintenance Training Devices (MTD) [MOD 4] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: CH-47F

DESCRIPTION / JUSTIFICATION:
 The Maintenance Training Devices (MTDs) to be upgraded include the Electrical Trainer, Hardware Maintenance Trainer, Automatic Flight Control System Classroom Trainer, Single Point Pressure Refueling Systems Trainer, Composite Maintenance Trainer, Landing Gear, Cargo Hook, Hydraulics Maintenance Trainers, and Flight Controls Trainers. Since almost all dynamic components will remain the same between the CH-47D and CH-47F models, many of these trainers will be required for CH-47F as it transitions.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	2	3	4	FY 2016				FY 2017				FY 2018				FY 2019				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: 12 months
 Contract Dates: FY 2012 - Jan 10 FY 2013 - Dec 11 FY 2014 - Jan 12
 Delivery Dates: FY 2012 - Jan 11 FY 2013 - Jan 12 FY 2014 - Jan 13

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Maintenance Training Devices (MTD) [MOD 4] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
MTD Upgrades	11	20.8	3	5.4	4	4.7	4	5.4									22	36.3
Engineering Support		9.5		1.3		1.4		1.4										13.6
Logistics		0.9		0.3		0.3		0.3		0.7								2.5
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		31.2		7.0		6.4		7.1		0.7		0.0		0.0		0.0		52.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Transformation Sets, Kits and Outfits [MOD 5] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: CH-47D and CH-47F

DESCRIPTION / JUSTIFICATION:

Type of Improvements - Improved Operational and Safety Capability. Sets, Kits and Outfits. This funding procures initial start-up tooling and equipment to facilitate unit reorganizations as part of the Army Aviation Transformation. Procurement of these kits are through requisition in the supply system.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

	FY 2016				FY 2017				FY 2018				FY 2019				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:

0 months

PRODUCTION LEADTIME: 0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Transformation Sets, Kits and Outfits [MOD 5] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
SKOs	25	64.6	4	12.3	2	6.3	4	15.0	1	3.2							36	101.4
PM Support		0.7																0.7
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		65.3		12.3		6.3		15.0		3.2		0.0		0.0		0.0		102.1

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: M24A1 Window/Door Gun Mount [MOD 6] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: CH-47D and CH-47F

DESCRIPTION / JUSTIFICATION:

Type of Improvement: The M24A1 Window/Door Gun Mount will replace the legacy gun mount to improve operational capability. The current M240H machine gun is adapted to the legacy M24 mount by means of a mount and pintle assembly with a 200 round capacity ammunition can and a collection system. The M240H machine gun Operational Requirement Document (ORD) requires an increase in the number of rounds available for firing without the need to change ammunition cans. The current M24 gun mount will not support a 400 ammunition can nor provide the user requirement for egressibility/stowability without modification. These are user installed.

The M24A1 Gun Mount provides the user with increased field of fire (FOF), 400 rounds of ammo, and the ability to stow the weapon inside the aircraft for easy ingress/egress when on the ground. Mod 1 will adapt the gun mount with outboard articulation for emergency egress.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Contract Award, January 2010
 First Production Hardware Delivery, Dec 2010, shipped to Theater.
 Mod 1 Prototype Production Contract Award, Feb 2011

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	1	2	3	1	2	3		
Inputs														
Outputs														

METHOD OF IMPLEMENTATION: Contract ADMINISTRATIVE LEADTIME: 6 months PRODUCTION LEADTIME: 8 months
 Contract Dates: FY 2012 - Dec 11 FY 2013 - Dec 12 FY 2014 - Dec 13
 Delivery Dates: FY 2012 - Jul 12 FY 2013 - Jul 13 FY 2014 - Jul 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): M24A1 Window/Door Gun Mount [MOD 6] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
Door Gunner Mount B Kits	540	14.1															540	14.1
M240 Window/Door Gun Mount Mod 1					150	7.4	160	8.0	162	8.3							472	23.7
PM Support		0.2				0.4		0.4		0.4								1.4
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		14.3		0.0		7.8		8.4		8.7		0.0		0.0		0.0		39.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Cargo On/Off Loading System [MOD 11] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: CH-47D and CH-47F

DESCRIPTION / JUSTIFICATION:

The Cargo On/Off Loading (COOL) System will replace the current system, Helicopter Internal Cargo Handling System, which is cumbersome and not flexible enough to meet mission diversity currently faced in Overseas Contingency Operations. The system would be integrated into the aircraft. This would allow for units to perform cargo missions and pax missions without stopping to reconfigure the helicopter. The current system is a bolt on system that is maintenance intensive to install and remove. The cargo handling floor would allow a cargo handling system to be installed on the aircraft all the time allowing for in-flight mission changes as needed and reducing mission preparation time while eliminating man-hours needed to install.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Non-Recurring Engineering (NRE) Contract Award, September 2008.
 NRE Phase II, November 2010. Preliminary Design Review, January 2011. Critical Design Review, April 2011.
 Production Contract Award, May 2011. First Unit Equipped, March 2012.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	45				65				55				30				29				41
Outputs	35	5	5		22	21	21		19	18	19		15	5	5	5	5	5	9	10	11

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs				60				60										225	610
Outputs	10	10	10	10	15	15	15	15										275	610

METHOD OF IMPLEMENTATION: Contract **ADMINISTRATIVE LEADTIME:** 5 months **PRODUCTION LEADTIME:** 8 months
 Contract Dates: FY 2012 - May 12 FY 2013 - May 13 FY 2014 - May 14
 Delivery Dates: FY 2012 - Jan 12 FY 2013 - Jan 13 FY 2014 - Jan 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Cargo On/Off Loading System [MOD 11] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
Cargo Handling Floor System	126	29.7	11	3.4	40	13.0	30	10.0	56	18.9	72	24.8	72	25.1	169	64.5	576	189.4
PM Support		0.4		0.2		0.7		0.5		0.9		1.2		1.3		1.3		6.5
Overseas Contingency																		
Operations																		
Cargo Handling Floor System			98	30.4													98	30.4
PM Support				1.7														1.7
FY 2009 & Prior Equip -- Kits	45	3.2															45	3.2
FY 2010 -- Kits			20	1.4													20	1.4
FY 2011 Equip -- Kits			42	3.2	56	4.1	11	0.8									109	8.1
FY 2012 Equip -- Kits							40	3.0									40	3.0
FY 2013 Equip -- Kits									30	2.3							30	2.3
FY 2014 Equip -- Kits											56	4.3					56	4.3
FY 2015 Equip -- Kits													72	5.7			72	5.7
FY 2016 Equip -- Kits																		
TC Equip- Kits															238	17.4	238	17.4
Total Installment	45	3.2	62	4.6	56	4.1	51	3.8	30	2.3	56	4.3	72	5.7	238	17.4	610	45.4
Total Procurement Cost		33.3		40.3		17.8		14.3		22.1		30.3		32.1		83.2		273.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Ballistic Protection System (BPS) [MOD 13] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: CH-47D and CH-47F

DESCRIPTION / JUSTIFICATION:

The Ballistic Protection System will be used to protect aircrews, passengers, cargo and critical aircraft components from hostile fire while in flight and on the ground. The current Ballistic Protection System is extremely heavy, maintenance intensive to install and does not allow for easy configuration of the aircraft during missions. It also does not allow for the installation of any Cargo Handling System, Cargo On/Off Loading System. This Ballistic Protection System will be lighter than the current system and will increase the CH-47 availability to the war fighter while also increasing its single day mission diversity and reducing the man-hours required for installing and removing for each mission. These are replacement items and are user installed.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Lightweight Ballistic Protection System:
Engineering Change Proposal approval, October 2011.
Production Contract Award, June 2012.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	2	3	4	FY 2016				FY 2017				FY 2018				FY 2019				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:** 4 months
Contract Dates: FY 2012 - Jun 2012 FY 2013 - Jun 2013 FY 2014 - Jun 2014
Delivery Dates: FY 2012 - Nov 2010 FY 2013 - Nov 2013 FY 2014 - Nov 2014

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Ballistic Protection System (BPS) [MOD 13] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
BPS NRE	15	4.3															15	4.3
BPS A/B Kits	34	5.1	15	2.8													49	7.9
A Kits	25	1.3															25	1.3
Light Weight BPS					26	4.7	82	14.9	83	15.2							191	34.8
A Kit																		
PM Support				0.1		0.2		0.6		0.7								1.6
Overseas Contingency																		
Operations																		
BPS			88	15.9													88	15.9
PM Support				0.9														0.9
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		10.7		19.7		4.9		15.5		15.9		0.0		0.0		0.0		66.7

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature UTILITY/CARGO AIRPLANE MODS (AA0270)
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Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	159.2	31.4	13.7	22.1		22.1	24.7	39.0	22.1	22.4		334.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	159.2	31.4	13.7	22.1		22.1	24.7	39.0	22.1	22.4		334.6
Initial Spares												
Total Proc Cost	159.2	31.4	13.7	22.1		22.1	24.7	39.0	22.1	22.4		334.6
Flyaway U/C												
Weapon System Proc U/C												

P-40 Breakdown										
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016
Active	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	22715.0	4820.0	22107.0	0.0	22107.0	24654.0	39031.0	22065.0	22442.0
National Guard	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	8710.0	3818.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	5078.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	31425	13716	22107	0	22107	24654	39031	22065	22442

Description:
The budget line updates and modernizes all series Army fixed wing aircraft such as C-31A, UV-18, UV-20, CE-182, CE-208, O-2, T-34, U-21, C-12, RC-12, UC-35, C-23, C-26, C-37, C-20 and EO-5 aircraft communication, navigation, surveillance, engines and Department of Defense (DoD) mandated safety equipment to current and evolving international standards. In addition, it provides for the procurement of test equipment and other commercial and military support equipment. These modifications ensure continued worldwide deployment capability and safe operations.

Justification:
FY12 Base procurement dollars in the amount of \$22.107 million supports communications, navigation, and surveillance equipment that meets current and future air traffic management requirements. In addition, equipment included in the modifications will enhance the safety of passengers and crew. The upgrades 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 communication and navigation systems will enhance reliability and maintainability, thereby improving aircraft availability for mission requirements. The associated aircraft modifications will assure worldwide deployability.

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature UTILITY/CARGO AIRPLANE MODS (AA0270)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Fixed Wing Aircraft Modification and Upgrade										
1-96-01-0612	UNCLASSIFIED	190.6	13.7	22.1	24.7	39.0	22.1	22.4	0.0	334.6
Totals		190.6	13.7	22.1	24.7	39.0	22.1	22.4	0.0	334.6

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Fixed Wing Aircraft Modification and Upgrade [MOD 1] 1-96-01-0612

MODELS OF SYSTEM AFFECTED: All series Army fixed wing aircraft

DESCRIPTION / JUSTIFICATION:

This effort will modernize Fixed Wing aircraft communications, navigation, surveillance (CNS), safety equipment, and engines to current and future international requirements, enhance fleet standardization, allow worldwide deployments and continued safe operations in 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 119/123, Mode S/5 upgrade, Satellite Communications (SATCOM), Traffic Alert Collision Avoidance System II, Flight Data Recorder, Cockpit Voice Recorder, Aux Fuel System, High Frequency Radios, ARC-210/231, Weather Radars, Data Link Capability, TA-24 Secure Global Positioning System, Communications Management Unit, Wide Area Augmentation System/Localizer Performance with Vertical Guidance (WAAS/LPV), and other commercial and military CNS equipment. 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 MILESTONE(S):

Development is not required for Avionics System Cockpit Upgrade.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	169	1	4	10	11	18	18	16	20	13	14	14	13	12	12	11	12	10	8	11
Outputs	151	18	1	4	10	11	18	18	16	20	13	14	14	13	12	12	11	12	10	8

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	9	5	4	2														417
Outputs	11	9	5	4	2													417

METHOD OF IMPLEMENTATION: Contractor **ADMINISTRATIVE LEADTIME:** 2 months **PRODUCTION LEADTIME:** 6 months

Installation

Contract Dates: FY 2012 - Dec 11 FY 2013 - Dec 12 FY 2014 - Dec 13

Delivery Dates: FY 2012 - May 12 FY 2013 - May 13 FY 2014 - May 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Fixed Wing Aircraft Modification and Upgrade [MOD 1] 1-96-01-0612

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		190.6		13.7		22.1		24.7		39.0		22.1		22.4				
Procurement																			
Installation of Hardware																			
Kit Quantity																			
Installation Kits	169	133.4	15	9.5	63	15.4	61	17.2	48	27.2	41	15.4	20	15.6				417	233.7
Installation Kits, Nonrecurring Equipment																			
Equipment, Nonrecurring																			
Engineering Change Orders																			
Data		1.0		0.1		0.1		0.1		0.1		0.1		0.1					1.6
Training Equipment																			
Support Equipment																			
Other																			
Interim Contractor Support																			
FY 2010 & Prior Equip -- Kits	169	56.2																169	56.2
FY 2011 -- Kits			15	4.1														15	4.1
FY 2012 Equip -- Kits					63	6.6												63	6.6
FY 2013 Equip -- Kits							61	7.4										61	7.4
FY 2014 Equip -- Kits									48	11.7								48	11.7
FY 2015 Equip -- Kits											41	6.6						41	6.6
FY 2016 Equip -- Kits													20	6.7				20	6.7
FY 2017 Equip -- Kits																			
TC Equip-Kits																			
Total Installment	169	56.2	15	4.1	63	6.6	61	7.4	48	11.7	41	6.6	20	6.7	0	0.0		417	99.3
Total Procurement Cost		190.6		13.7		22.1		24.7		39.0		22.1		22.4		0.0			334.6

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	20.2	0.8	0.8									21.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	20.2	0.8	0.8									21.8
Initial Spares												
Total Proc Cost	20.2	0.8	0.8									21.8
Flyaway U/C												
Weapon System Proc U/C												

Description:

The budget line updates and modernizes the C-20F, C-20E, C-37A and C-37B fixed wing aircraft, including communications and navigation equipment, and displays, enhancing the aircraft's capability for worldwide deployments. These aircraft support the Army's executive flight detachment at the three star and above level with required communications equipment.

Justification:

No FY12 Base procurement dollars.

All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
UTILITY HELICOPTER MODS (AA0480)

Program Elements for Code B Items:

Code:

Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	984.5	139.2	77.6	80.7		80.7	85.6	86.1	81.6	56.6	85.0	1677.0
Less PY Adv Proc	13.5											13.5
Plus CY Adv Proc	13.5											13.5
Net Proc P1	984.5	139.2	77.6	80.7		80.7	85.6	86.1	81.6	56.6	85.0	1677.0
Initial Spares												
Total Proc Cost	984.5	139.2	77.6	80.7		80.7	85.6	86.1	81.6	56.6	85.0	1677.0
Flyaway U/C												
Weapon System Proc U/C												

Description:

Utility Helicopter Mods include modifications to the UH-60 BLACKHAWK helicopter and the Light Utility Helicopter (UH-72A LAKOTA). The UH-60 BLACKHAWK helicopter is the Army's utility helicopter in the future force. The UH-72A LAKOTA will provide general aviation support for CONUS based Table of Distribution and Allowance (TDA) and Table of Organization and Equipment (TOE) aviation units in the active and reserve components.

Justification:

FY 12 Base procurement dollars in the amount of \$80.7 million will procure Crashworthy External Fuel Systems (CEFS), UH-60 A to L Conversions and External High Speed Hoists. CEFS is a safety modification that reduces the risk of a post-crash fire. The UH-60 A to L Conversion program expands the current UH-60 A to A recapitalization/rebuild program to a UH-60 A to L recapitalization/upgrade program.

COMPO Break see pg 2.

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature UTILITY HELICOPTER MODS (AA0492)
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Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	984.5	139.2	77.6	80.7		80.7	85.6	86.1	81.6	56.6	85.0	1677.0
Less PY Adv Proc	13.5											13.5
Plus CY Adv Proc	13.5											13.5
Net Proc P1	984.5	139.2	77.6	80.7		80.7	85.6	86.1	81.6	56.6	85.0	1677.0
Initial Spares												
Total Proc Cost	984.5	139.2	77.6	80.7		80.7	85.6	86.1	81.6	56.6	85.0	1677.0
Flyaway U/C												
Weapon System Proc U/C						2.1						2.1

P-40 Breakdown										
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016
Active	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	78984.0	20630.0	20451.0	0.0	20451.0	24124.0	23374.0	25585.0	56638.0
National Guard	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	52329.0	48684.0	60294.0	0.0	60294.0	61503.0	62732.0	56000.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	7915.0	8301.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	139228	77615	80745	0	80745	85627	86106	81585	56638

Description:
 Utility Helicopter Mods include modifications to the UH-60 BLACKHAWK helicopter and the Light Utility Helicopter (UH-72A LAKOTA). The UH-60 BLACKHAWK helicopter is the Army's utility helicopter in the future force. It is a twin engine, single rotor, four bladed utility helicopter used for air assault, air cavalry, troop and equipment transport, command & control, and medical evacuations (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 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-60 BLACK HAWK fleet consists of the UH-60A, first fielded in FY 1978, the newer UH-60L which was fielded in FY 1989 and the UH-60M which began low rate initial production in FY 2005 and full rate production FY 2007. The oldest UH-60As are now over 30 years old, and the average age of the UH-60A fleet is 23 years. The UH-72A LAKOTA will provide general aviation support for CONUS based TDA and Table of Organization and Equipment (TOE) aviation units in the active and reserve components. The UH-72A platform provides the flexibility to respond to Homeland Security (HLS) requirements, conducts civil search and rescue operations, supports damage assessment, supports test and training centers, performs generating force missions, augments the HH-60 MEDEVAC aircraft and provides support to the Continental United States (CONUS) counterdrug operations. The UH-72A provides time-sensitive transport of supplies or key personnel, air mobility to assist civil authorities through the execution of search and rescue or disaster relief operations, advance warning/detection of external threats to include threats to our borders, augmentation of air ambulance capabilities and limited command & control operations in the conduct of HLS.

Exhibit P-40, Budget Item Justification Sheet	Date:
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February 2011

Appropriation / Budget Activity / Serial No: <small>Aircraft Procurement, Army / 2 / Modification of aircraft</small>	P-1 Item Nomenclature <small>UTILITY HELICOPTER MODS (AA0492)</small>
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Justification:

FY 12 Base procurement dollars in the amount of \$80.7 million will procure Crashworthy External Fuel Systems (CEFS), UH-60 A to L Conversions and External High Speed Hoists. CEFS is a safety modification that reduces the risk of a post-crash fire. The External High Speed Hoist is a modification to UH-60A/L aircraft developed to supplement and eventually replace the internal rescue hoist currently in use. The existing internal hoist has significant obsolescence issues and takes up valuable cabin space in the aircraft thus the Army decided to standardize the external hoist configuration as employed on the HH-60A/L/M. The UH-60 A to L Conversion program expands the current UH-60 A to A recapitalization/rebuild program to a UH-60 A to L recapitalization/upgrade program.

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011				
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft				P-1 Item Nomenclature UTILITY HELICOPTER MODS (AA0492)							
Appropriation / Budget Activity / Serial No:				P-1 Item Nomenclature							
Program Elements for Code B Items:						Code:		Other Related Program Elements:			
Description		Fiscal Years									
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total	
Crashworthy External Fuel System (CEFS)											
OSIP	Safety	145.6	6.1	11.6	11.2	10.2	10.2	0.0	0.0	194.9	
UH-60A to UH-60L Conversion											
OSIP	Operational	66.9	57.0	59.4	60.5	61.5	56.0	40.8	68.1	470.2	
External High Speed Hoist											
OSIP	Operational	0.0	0.0	9.7	13.9	14.4	15.4	15.8	16.9	86.1	
UH-60A Rewiring											
OSIP	Operational	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	
UH-60 Improved Communications (ARC 220)											
OSIP	Operational	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	
HH-60A to HH-60L Upgrade											
OSIP	Operational	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	
UH-60 MEDEVAC Thermal Imaging Upgrades											
OSIP	Operational	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	
Ballistic Protection Systems (BAPS)											
OSIP	Safety	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	
UH-60 SPONSON FLIR											
OSIP	Operational	10.1	12.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1	
Forward Looking Infrared Sensors											
OSIP	Operational	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	
IVHMS Demo on the UH-72A Lakota											
OSIP	Operational	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	
Internal Auxiliary Fuel Tank System											
OSIP	Safety	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	
Civil Support Communications Systems											
OSIP	Operational	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	
Program Increase											
OSIP	Operational	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	
Air Filtration Systems											
OSIP	Operational	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature UTILITY HELICOPTER MODS (AA0492)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
UH-60 Fire-Fighting Tank System										
OSIP	Safety	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
Totals		264.8	77.6	80.7	85.6	86.1	81.6	56.6	85.0	818.0

INDIVIDUAL MODIFICATION

Date: February 2011

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

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

DESCRIPTION / JUSTIFICATION:

The Crashworthy External Fuel System (CEFS) is a safety modification that reduces the risk of a post-crash fire. 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.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Development is complete.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	768	10	10	10	9	19	19	19	19	16	16	16	17	16	16	16	17	16	16	16	17
Outputs	760	8	10	10	10	9	19	19	19	19	16	16	16	17	16	16	16	17	16	16	16

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		1078
Outputs	17																	1078

METHOD OF IMPLEMENTATION: Contract Teams **ADMINISTRATIVE LEADTIME:** 2 months **PRODUCTION LEADTIME:** 9 months
Contract Dates: FY 2012 - Nov 11 FY 2013 - FY 2014 -
Delivery Dates: FY 2012 - Aug 12 FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		145.6		6.1		11.6		11.2		10.2		10.2						
Procurement																			
Installation of A-Kits																			
A-Kits (A/L)	803	45.4	39	2.7	76	5.4	65	4.7	65	4.8	65	4.9						1113	67.9
A-Kits (GFE to Production)	32	2.7																32	2.7
A-Kits (GFE to SAR Acft)	10	0.6																10	0.6
B-kits	433	59.1	9	1.4	26	4.0	21	3.2	22	3.4	18	2.8						529	73.9
Support Equipment/Other		31.6		1.6		1.0		2.5		1.3		1.5							39.5
FY2006 & Prior Equip -- 349	609	4.5																609	4.5
Kits																			
FY2007 Equip -- 84 Kits	84	0.9																84	0.9
FY2008 Equip --40 Kits	40	0.4																40	0.4
FY2009 Equip-- 35 Kits	35	0.4																35	0.4
FY2010 Equip -- 72 Kits			39	0.4														39	0.4
FY2011 Equip -- 70 Kits					76	1.2												76	1.2
FY2012 Equip-- 70 Kits							65	0.8										65	0.8
FY2013 Equip-- 70 Kits									65	0.7								65	0.7
FY2014 Equip-- 70 Kits											65	1.0						65	1.0
FY2015 Equip-- 70 Kits																			
TC Equip																			
Total Installment	768	6.2	39	0.4	76	1.2	65	0.8	65	0.7	65	1.0	0	0.0	0	0.0		1078	10.3
Total Procurement Cost		145.6		6.1		11.6		11.2		10.2		10.2		0.0		0.0			194.9

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: UH-60A to UH-60L Conversion [MOD 2] OSIP

MODELS OF SYSTEM AFFECTED: UH-60A

DESCRIPTION / JUSTIFICATION:
 Expands the current UH-60 A to A recapitalization/rebuild program to a UH-60 A to L recapitalization/upgrade program. Leverages ongoing UH-60 A to A recapitalization to further bridge the gap to UH-60M fielding and further reduces the overall O&S cost and logistics footprint of the fleet. Also provides an enhanced warfighting capability through aircraft performance improvements, to include installation of the T700-701D engine, improved durability gearbox, upgraded flight controls, and 9,000 lb cargo hook.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	38	9	9	10	10	9	10	10	10	9	10	10	10	9	10	10	10	9	9	9	8
Outputs	28	10	9	9	10	10	9	10	10	10	9	10	10	10	9	10	10	10	9	9	9

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	6	6	6	7													41	294
Outputs	8	6	6	6													48	294

METHOD OF IMPLEMENTATION: Conversion at Depot ADMINISTRATIVE LEADTIME: 0 months PRODUCTION LEADTIME: 0 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): UH-60A to UH-60L Conversion [MOD 2] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement	38	66.9	38	57.0	39	59.4	39	60.5	39	61.5	35	56.0	25	40.8	41	68.1	294	470.2
Installation of Hardware																		
Kit Quantity																		
Installation Kits																		
Installation Kits, Nonrecurring																		
Equipment																		
Equipment, Nonrecurring																		
Engineering Change Orders																		
Data																		
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		66.9		57.0		59.4		60.5		61.5		56.0		40.8		68.1		470.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: External High Speed Hoist [MOD 3] OSIP

MODELS OF SYSTEM AFFECTED: UH-60 A to L

DESCRIPTION / JUSTIFICATION:
Provides an enhanced warfighting capability with the addition of the External High Speed Hoist on UH-60A/L MEDEVAC aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):
Development is complete.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs						7	7	8	8	11	11	11	12	11	11	11	12	13	14	14	14
Outputs							7	7	8	8	11	11	11	12	11	11	11	12	13	14	14
		FY 2016				FY 2017				FY 2018				FY 2019				To	Totals		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
Inputs		13	14	14	14													55	285		
Outputs		14	13	14	14													69	285		

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: 0 months PRODUCTION LEADTIME: 0 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): External High Speed Hoist [MOD 3] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement					30	9.7	45	13.9	45	14.4	55	15.4	55	15.8	55	16.9	285	86.1
Installation of Hardware																		
Kit Quantity																		
Installation Kits																		
Installation Kits, Nonrecurring																		
Equipment																		
Equipment, Nonrecurring																		
Engineering Change Orders																		
Data																		
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		0.0		9.7		13.9		14.4		15.4		15.8		16.9		86.1

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: UH-60 SPONSON FLIR [MOD 9] OSIP

MODELS OF SYSTEM AFFECTED: UH-60A/L

DESCRIPTION / JUSTIFICATION:
Procures FLIR Thermal Imaging for UH-60 MEDEVAC aircraft. 15 A-Kits & 15 B-Kits

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

Pr Yr	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Totals			15																	
Inputs																				
Outputs				15																

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		15
Outputs																		15

METHOD OF IMPLEMENTATION: Contract Team ADMINISTRATIVE LEADTIME: 6 months PRODUCTION LEADTIME: 6 months
 Contract Dates: FY 2012 - MAR 2010 FY 2013 - MAR 2011 FY 2014 -
 Delivery Dates: FY 2012 - SEP 2010 FY 2013 - SEP 2011 FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): UH-60 SPONSON FLIR [MOD 9] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement																		
Installation of Hardware																		
A Kit			15	1.9													15	1.9
B Kit	20	8.3	15	9.0													35	17.3
Installation Kits, Nonrecurring Equipment																		
Equipment, Nonrecurring Engineering Change Orders																		
Data																		
Training Equipment																		
Support Equipment		1.8																1.8
Other																		
Interim Contractor Support				1.1														1.1
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		10.1		12.0		0.0		0.0		0.0		0.0		0.0		0.0		22.1

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	130	6	15		15	15						166
Gross Cost	3466.8	174.9	281.7	162.1	145.5	307.6	188.3	274.0	285.5	365.9	13.2	5357.8
Less PY Adv Proc	223.3											223.3
Plus CY Adv Proc	223.3											223.3
Net Proc P1	3466.8	174.9	281.7	162.1	145.5	307.6	188.3	274.0	285.5	365.9	13.2	5357.8
Initial Spares												
Total Proc Cost	3466.8	174.9	281.7	162.1	145.5	307.6	188.3	274.0	285.5	365.9	13.2	5357.8
Flyaway U/C												
Weapon System Proc U/C			18.8		9.7	7.7						32.3

Description:
 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 a laser rangefinder/designator in a mast-mounted sight situated above the main rotor system. The aircraft is equipped with a variety of weapon systems including: HELLFIRE, 2.75-inch rockets, and a .50-caliber machine gun. 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. The Active Army and the National Guard fly Kiowa Warriors.

To be both safe and operationally compatible with the digitized battlefield, an ongoing Safety Enhancement Program (SEP) incorporates upgraded engines and engine barrier filters, crashworthy crew seats, cockpit airbags, enhanced digitization capabilities, and improved weapons interface. The SEP reduces pilot workload during emergency maneuvers and significantly improves the crashworthiness of the aircraft thus enhancing crew survivability. The SEP modifications convert the Kiowa Warrior from the OH-58D(I) to the OH-58D(R) configuration. Aircraft are being SEP modified via a combination of efforts on Bell Helicopter's SEP modification line and through field retrofit. The last Safety Enhancement Program production lot is on contract and in-work. SEP will be completed no later than September 2011.

The Fielded Fleet Upgrades and Weight Reduction initiative will further increase safety by reducing aircraft weight, thus improving operational and autorotational performance of the fielded fleet of OH-58D(R) aircraft. The initiative will also increase system reliability and lower support costs. Efforts include removing obsolete and extraneous hardware, replacing armor panels with lighter versions, fielding lightweight floor armor, improving reliability of the engine's current Full Authority Digital Electronic Controller (FADEC), replacing the legacy multifunction displays (MFDs) with lightweight versions, providing a lighter weight and better positioned common transponder, improved .50 cal gun, video data transfer system, reduced weight HELLFIRE launchers, the AN/AAR-57 Common Missile Warning System (CMWS), a lightweight composite Universal Weapons Pylon, improved lightweight heater system, and a Health Usage Monitoring System (HUMS).

The Cockpit And Sensor Upgrade Program (CASUP) will address additional capabilities, safety enhancements and obsolescence issues to allow the aircraft to safely serve as the Army's day/night, armed-reconnaissance, aviation platform until replaced/retired. CASUP will convert the OH-58D(R) to the OH-58F configuration. Efforts include upgrading to Control Display Subsystem version 5 (CDS 5), adding a second AN/ARC231 SATCOM radio, third MFD, Dual Channel Full Authority Digital Electronic Control (FADEC), armament enhancements, replace the mast mounted site with an advanced nose-mounted sensor, and other weight and obsolescence reduction upgrades. Cockpit and maintenance trainers will be upgraded to maintain concurrency.

To replace aircraft lost during Overseas Contingency Operations and to return the fleet to the Authorized Procurement Objective (APO) of 368 the Army will build Wartime Replacement Aircraft. These new Kiowa Warriors will be delivered in the OH-58D(R) configuration, including upgrades that are being installed on the fielded fleet. The Army will use divested OH-58A/C model airframes as donors to create the Kiowa Warrior aircraft.

Exhibit P-40, Budget Item Justification Sheet	Date:
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February 2011

Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature KIOWA WARRIOR (AZ2200)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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The Intelligence Surveillance Reconnaissance (ISR) Task Force added funds for a level II Manned-Unmanned (L2MUM) teaming capability for the fielded Kiowa Warrior fleet. This system will integrate a lightweight, second-generation full motion video system which can receive off-board video, transmit own-ship video, and also re-transmit off-board video. The KW MUM system is comparable to the Apache Video from Unmanned Aircraft Systems Interoperability Teaming - Level 2 (VUIT-2) system and will be fully interoperable with Apache, Raven, Shadow, Gray Eagle, Predator, and many other DoD manned and unmanned platforms.

Justification:

FY 2012 Base Funding in the amount of \$162.052 Million will procure CASUP (OH-58F) long-lead components (\$69.513 Million), close out SEP (\$0.3 Million) and continue Weight Loss and Fielded Fleet Upgrade programs for fielded fleet of OH-58D(R) aircraft (\$92.239 Million). CASUP modifications will allow the Kiowa Warrior to safely serve as the Army's, armed-reconnaissance, aviation platform until replaced/retired.

FY 2012 OCO Funding in the amount of \$145.500 Million will continue to build OH-58D(R) Kiowa Warrior Wartime Replacement aircraft in the most current configuration to include fielded fleet upgrades and weight reduction items.

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature KIOWA WARRIOR (AZ2200)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Safety Enhancement Program (SEP)										
2-97-01-0115	Safety	482.7	1.7	0.3	0.0	0.0	0.0	0.0	0.0	484.7
Fielded Fleet Upgrades and Weight Reduction										
2-02-01-0116	Safety	173.7	30.6	92.3	65.3	5.3	0.0	0.0	0.0	367.2
Cockpit And Sensor Upgrade Program (CASUP)										
2-08-01-0117	Operational	0.0	61.0	0.0	0.0	118.7	141.8	180.7	0.0	502.2
Cockpit & Sensor Upgrade Program (CASUP) Long-Lead										
2-08-01-0120	Operational	0.0	0.0	69.5	123.0	150.0	143.7	185.2	0.0	671.4
Wartime Replacement Aircraft										
2-10-01-0118	Operational	70.2	142.5	145.5	0.0	0.0	0.0	0.0	0.0	358.2
Level II Manned-Unmanned (L2MUM) Teaming										
2-10-01-0119	Operational	24.1	44.8	0.0	0.0	0.0	0.0	0.0	0.0	68.9
Totals		750.7	280.6	307.6	188.3	274.0	285.5	365.9	0.0	2452.6

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Fielded Fleet Upgrades and Weight Reduction [MOD 2] 2-02-01-0116

MODELS OF SYSTEM AFFECTED: OH-58D Kiowa Warrior

DESCRIPTION / JUSTIFICATION:

The Fielded Fleet Upgrades and Weight Reduction initiative addresses safety and mission effectiveness of the OH-58D(R) fleet. The safety of the crew depends to a large extent on the maneuverability and performance of the aircraft. Due to its current MEP weight, the Kiowa Warrior has an existing operational safety deficiency for autorotational capability. The Weight Reduction modifications will improve the margin of safety, provide increased power margins, and include the following initiatives: lightweight multi-function displays, a lighter weight and better positioned common transponder, reduced weight HELLFIRE launchers, a lightweight composite Universal Weapons Pylon, improved lightweight heater system, and improved armor panels. Mission effectiveness and other safety upgrades include: fielding lightweight floor armor, improving reliability of the engine's current Full Authority Digital Electronic Controller (FADEC), improved .50 cal machine gun, video data transfer system, the AN/AAR-57 Common Missile Warning System (CMWS), Level 2 Manned-Unmanned (L2MUM) Teaming (moved from OCO after 2011) and a Health Usage Monitoring System (HUMS). Of the current fleet of 331 aircraft, all will receive these modernization items. Modifications will be made on an as-available basis and completed at a combination of government depot and field sites by both government and contractor workforces.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Aircraft will be equipped/modified via field retrofits, no block modification planned.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4			
Inputs														
Outputs														

METHOD OF IMPLEMENTATION: Field Retrofit ADMINISTRATIVE LEADTIME: 0 months PRODUCTION LEADTIME: 0 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Fielded Fleet Upgrades and Weight Reduction [MOD 2] 2-02-01-0116

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware (Retrofit)																		
Kit Quantity																		
Nonrecurring		1.2																1.2
Recurring Labor		2.9																2.9
Hardware		126.3		28.4		80.3		59.0		5.2								299.2
Data/Pubs/Manuals		2.0																2.0
Support Equipment		10.3																10.3
Other		17.3		1.9		9.7		6.2										35.1
Fielding		1.7																1.7
Training/Training Devices		7.8				2.0												9.8
FY 2010 & Prior Equip -- Kits		4.2																4.2
FY 2011 Equip -- Kits				0.3														0.3
FY 2012 Equip -- Kits						0.3												0.3
FY 2013 Equip -- Kits								0.1		0.1								0.2
FY 2014 Equip -- Kits																		
FY2015 Equip -- Kits																		
TC Equip -- Kits																		
Total Installment	0	4.2	0	0.3	0	0.3	0	0.1	0	0.1	0	0.0	0	0.0	0	0.0	0	5.0
Total Procurement Cost		173.7		30.6		92.3		65.3		5.3		0.0		0.0		0.0		367.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Cockpit And Sensor Upgrade Program (CASUP) [MOD 3] 2-08-01-0117

MODELS OF SYSTEM AFFECTED: OH-58D Kiowa Warrior

DESCRIPTION / JUSTIFICATION:

The Cockpit and Sensor Upgrade Program (CASUP) addresses additional capabilities, safety enhancements and obsolescence issues to allow the Kiowa Warrior to serve as the Army's armed reconnaissance, aviation platform until replaced/retired. CASUP will convert the OH-58D(R) to the OH-58F configuration. Efforts include upgrading to Control and Display Subsystem, version 5 (CDS5), installing a second AN/ARC-231 SATCOM radio, 3rd multi-function display (MFD), Dual Channel Full Authority Digital Electronic Control (FADEC), integrated infrared, laser, and pulse radar warning systems, armament enhancements, replacing the Mast Mounted Site (MMS) system with a nose-mounted sensor, and other weight and obsolescence reduction upgrades. The current fleet of 331 aircraft is planned to be modified as well as all aircraft built to replace wartime losses, for a total modification run of 368 aircraft. Seven aircraft in the current fleet are planned to be modified with RDTE funding and will be fielded following the test program (not included in schedule below). Trainers will be upgraded to maintain concurrency.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

The government is serving as lead system integrator for CASUP. Milestone B approved 21 December 2010

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs														5	7	7	8	8	12	16
Outputs															4	6	6	8	10	12
	FY 2016				FY 2017				FY 2018				FY 2019				To	Totals		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Complete			
Inputs	16	20	19	20	16	19	20	19	16	19	20	19	17	19	19	20		361		
Outputs	12	19	22	20	16	19	20	19	16	19	20	19	17	19	19	20	19	361		

METHOD OF IMPLEMENTATION: Block modification ADMINISTRATIVE LEADTIME: 6 months PRODUCTION LEADTIME: 6 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 - April 2014
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 - Oct 2014

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Cockpit And Sensor Upgrade Program (CASUP) [MOD 3] 2-08-01-0117

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
Kit Quantity									27		47		74				148	
Hardware				46.9					65.8		72.1		79.1					263.9
Training/Devices				6.7					11.0		21.1		33.6					72.4
Tooling/SPT Equipment				1.5					10.3		1.9		0.4					14.1
Other				5.7					14.8		18.5		32.8					71.8
Fielding				0.2					0.1		1.6		2.0					3.9
				1.1														1.1
FY 2010 & Prior Equip -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits									16.7									16.7
FY 2015 Equip -- Kits											26.6							26.6
FY 2016 Equip -- Kits													32.8					32.8
TC Equip- Kits																		
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	16.7	0	26.6	0	32.8	0	0.0	0	76.1
Total Procurement Cost		0.0		62.1		0.0		0.0		118.7		141.8		180.7		0.0		503.3

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Cockpit & Sensor Upgrade Program (CASUP) Long-Lead [MOD 4] 2-08-01-0120

MODELS OF SYSTEM AFFECTED: OH-58D Kiowa Warrior

DESCRIPTION / JUSTIFICATION:

The Cockpit and Sensor Upgrade Program (CASUP) addresses additional capabilities, safety enhancements and obsolescence issues to allow the Kiowa Warrior to serve as the Army's armed reconnaissance, aviation platform until replaced/retired. CASUP will convert the OH-58D(R) to the OH-58F configuration. Long lead components include items that are common to other Army Aviation/DoD platforms and items that are unique to the OH-58F aircraft. Numerous CASUP components deliver more than 12 months after procurement; therefore, components to support CASUP LRIP Lot 1 production which starts in FY14 must be procured in FY12. Items with lead times of greater than 12 months include nose sensor mount assemblies, landing gear, transmission mount structures, AAS-53 Common Sensor Payloads, and CDS5 Improved Master Controller Processors. Procurement awards listed in below table reflect shipsets of long lead items.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

The government is serving as lead system integrator for CASUP. Milestone B approved 21 December 2010.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs							36				47				83				79	
Outputs													6	8	10		11	12	12	12

1	FY 2016			FY 2017				FY 2018				FY 2019				To Complete	Totals			
	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs			101			88														434
Outputs	12	20	21	21	21	20	20	19	20	25	25	26	25	22	22	22			22	434

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

6 months

PRODUCTION LEADTIME:

18 months

Contract Dates:

FY 2012 - various

FY 2013 - various

FY 2014 - various

Delivery Dates:

FY 2012 - Sept 2014

FY 2013 - Sept 2015

FY 2014 - Sept 2016

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Cockpit & Sensor Upgrade Program (CASUP) Long-Lead [MOD 4] 2-08-01-0120

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
CDS5 A-Kit Quantity					36		47		83		79		100				345	
CDS5 A-Kits						14.3		19.2		34.2		33.1		42.6				143.4
BHTI A-Kit Quantity					36		47		88		80		100				351	
BHTI A-Kits						10.0		13.3		25.4		23.6		29.9				102.2
NMS B-Kit Quantity					36		47		83		78		100				344	
NMS B-Kits						28.4		37.8		68.3		66.4		86.6				287.5
New IMCPU Quantity					35		38										73	
New IMCPU B-Kits						10.3		11.4										21.7
Other B-Kit Quantity					19		31		82		79		103				314	
Other B-Kits						6.0		11.9		22.1		20.6		26.1				86.7
Training Devices								12.8										12.8
Tooling/Support Equipment						0.5		10.4										10.9
Other (PMO)								6.2										6.2
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		0.0		69.5		123.0		150.0		143.7		185.2		0.0		671.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Wartime Replacement Aircraft [MOD 5] 2-10-01-0118

MODELS OF SYSTEM AFFECTED: OH-58D Kiowa Warrior

DESCRIPTION / JUSTIFICATION:

FY 2012 OCO funding will procure wartime replacement aircraft for those lost during Overseas Contingency Operations. These aircraft will be built using the "cabin" method and not procured as a complete aircraft from the original equipment manufacturer (Bell Helicopter). The Army will use divested OH-58A aircraft as donors to create the OH-58D. Specifically, the donor OH-58A aircraft will be de-populated and their center sections (cabins) will be modified at Bell Helicopter / Textron Industries (BHTI) into CDS4 configured Kiowa Warrior cabins. With the complete CDS4 cabin, Corpus Christi Army Depot (CCAD) will mount all remaining structure, equipment, and modifications which have been applied to the current fleet. CCAD will then conduct ground/flight test and acceptance of the aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Cabin conversion contract awarded to Bell Helicopter October 2010. New cabin conversion facility opened by Bell Helicopter in Amarillo, TX. Multiple cabin conversions in progress.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs							3	3	3	3	3	3	6	6	5	1				
Outputs									3	3	3	3	3	3	6	6	6			

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals	
	2	3	4	1	2	3	4	1	2	3	4				
Inputs															36
Outputs															36

METHOD OF IMPLEMENTATION: Built at Govt Depot **ADMINISTRATIVE LEADTIME:** 4 months **PRODUCTION LEADTIME:** 34 months
Contract Dates: FY 2012 - Feb 12 FY 2013 - FY 2014 -
Delivery Dates: FY 2012 - Aug 13 FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Wartime Replacement Aircraft [MOD 5] 2-10-01-0118

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
AC Modification Quantity	6		15		15												36	
BHTI Airframe Mod		22.6		50.4		50.7												123.7
BHTI Rep at CCAD		0.4		0.4		0.4												1.2
GFE/Hardware		13.5		18.8		19.3												51.6
CCAD Labor		9.8		18.6		19.4												47.8
CCAD Material		20.2		50.4		51.7												122.3
Program Support - Govt		3.7		3.9		4.0												11.6
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 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	0.0	0	0.0	0	0.0
Total Procurement Cost		70.2		142.5		145.5		0.0		0.0		0.0		0.0		0.0		358.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Level II Manned-Unmanned (L2MUM) Teaming [MOD 6] 2-10-01-0119

MODELS OF SYSTEM AFFECTED: OH-58D Kiowa Warrior

DESCRIPTION / JUSTIFICATION:

FY 2010 & 2011 OCO funding will procure level II Manned-Unmanned (L2MUM) teaming capability for the Kiowa Warrior. An Urgent Operational Needs Statement was approved on 5 Oct 09 with approval to equip 180 aircraft with the L2MUM capability. System is divided into an A/B-kit configuration. Funding requested includes B-kits for 180 aircraft, A kits for the entire Kiowa Warrior fleet and initial spares. The system will initially be fielded to the OH-58D(R) fleet, and further integrated into the OH-58F aircraft once that modification is complete. The KW L2MUM system provides an advanced video networking capability that will significantly reduce sensor to shooter timelines by enabling both pilots and soldiers on the ground to see and share Kiowa Warrior Mast-Mounted Sight (MMS) video, Apache sensor video, and Unmanned Aerial System (UAS) video in near-real-time. The KW L2MUM system is comparable to the Apache VUIT2 system and will be fully interoperable with Apache, Raven, Shadow, Gray Eagle, Predator, and many other DoD manned and unmanned platforms.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Fielding to first operational squadron in progress (Fort Bragg, NC).

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	6	26	100	100	100																
Outputs	3	12	75	100	100	42															

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		332
Outputs																		332

METHOD OF IMPLEMENTATION: Field retrofit and ADMINISTRATIVE LEADTIME: 0 months PRODUCTION LEADTIME: 0 months
 Reset
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Level II Manned-Unmanned (L2MUM) Teaming [MOD 6] 2-10-01-0119

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
B-Kit Quantity	72		108														180	
B-Kits		22.0		33.8														55.8
A-Kit Quantity	91		286														377	
A-Kits		1.5		5.1														6.6
Fielding				2.5														2.5
Program Management		0.5		0.5														1.0
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits	6	0.1															6	0.1
FY 2011 Equip -- Kits			326	2.9													326	2.9
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
TC Equip- Kits																		
Total Installment	6	0.1	326	2.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	332	3.0
Total Procurement Cost		24.1		44.8		0.0		0.0		0.0		0.0		0.0		0.0		68.9

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature AIRBORNE AVIONICS (AA0700)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: PE 0604201A, SSN AA0704, SSN AA0712, SSN AA0723
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	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	1259.2	207.1	244.4									1710.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	1259.2	207.1	244.4									1710.7
Initial Spares	2558.0	28.0	7.3									2593.3
Total Proc Cost	3817.2	235.1	251.7									4304.0
Flyaway U/C												
Weapon System Proc U/C												

P-40 Breakdown											
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	
Active	Qty	0	0	0	0	0	0	0	0	0	0
	Gross Cost	207052.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
National Guard	Qty	0	0	0	0	0	0	0	0	0	0
	Gross Cost	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0	0	0	0
	Gross Cost	207064	0	0	0	0	0	0	0	0	0

Description:
The Airborne Avionics budget line includes the Global Positioning System (GPS), the Aviation Mission Planning System (AMPS), the Improved Data Modem (IDM), Aviation Tactical Communications Systems (ATCS), Joint Tactical Radio System (JTRS), Military Flight Operations Quality Assurance (MFOQA), and Apache Interoperability. The GPS, IDM, AMPS, ATCS and JTRS are five of the aviation systems required to support the digitization of the battlefield.

The GPS provides Army Aviation with extremely accurate and secure navigation and timing, assists in situational awareness, and aids in prevention of fratricide. GPS is installed in two configurations based upon mission profile, operational requirements, and avionics architecture of the aircraft. The Doppler GPS Navigation System (DGNS) is used for the Non-bussed Utility and Cargo helicopters. The EGI is integrated into the Modernized Cargo, Utility, Attack, Kiowa Warrior, and Special Operations fleets of helicopters. A Pre-Planned Product Improvement (P3I) to the DGNS and EGI began in FY01 to integrate a Selective Availability Anti-Spoofing Module (SAASM) and Instrument Flight Rule (IFR) navigation capability. The P3I DGNS (AN/ASN-128D) is being installed on the Blackhawk (UH-60A/L and HH-60A/L) and Chinook (CH-47D) aircraft. The P3I EGI is being installed on UH/HH-60M, CH-47F, Longbow Apache Block III (AH-64D), Kiowa Warrior (OH-58D) and Special Operations Aircraft (SOA) (MH-47G and MH-60M). M-code is a new GPS security architecture and signal in space, mandated to support navigation warfare (NAVWAR) requirements. In order to minimize aircraft integration and testing requirements, introduction of M-Code capable GPS receivers is planned to coincide with the Joint Precision

Exhibit P-40, Budget Item Justification Sheet		Date: February 2011
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, SSN AA0704, SSN AA0712, SSN AA0723
<p>Approach Landing System (JPALS) program.</p> <p>The AMPS is a mission planning/battle synchronization tool that automates aviation mission planning tasks, including tactical command and control, mission planning, and flight planning. It interfaces with Army Battle Command Systems (ABCS) and associated networks which furnish the aviation commander with continuous situational awareness, allowing the commander to rapidly adjust mission plans. AMPS generates mission data in either hard copy or electronic formats. The electronic formats are loaded onto the aircraft platforms, initializing the communication, navigation, situational awareness, and weapons systems on fleet aircraft including the AH-64A/D, CH-47D/F, OH-58D Kiowa Warrior, UH-60A/L/M/Q, HH-60L/M, and Unmanned Aerial Systems (UAS). The AMPS program includes management of the Commander's Aviation Risk Tool (CART) and the Centralized Automated Flight Record System (CAFRS). To accommodate rapid commercial technology changes, the overall system hardware is replaced after five years of use.</p> <p>The IDM is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to Tactical Internet (TI) and Fire Support (FS) internet for Army aircraft. With interfaces supporting a 6 channel transmit/receive terminal, the IDM provides radio connectivity to the ARC-201D/231, ARC-186, ARC-164, and the Blue Force Tracker's (BFT) MT-2011 Transceiver, as well as providing 1553 and Ethernet portals for rapid data transfer. This hardware/software solution also provides a flexible, software-driven digital messaging system that is interoperable with existing Army and Joint forces battlefield operating systems. The IDM provides Situational Awareness and Joint Variable Message Format messages capability to the cockpit. The IDM is currently utilized by the AH-64D, OH-58D, CH-47F, and UH/HH-60M.</p> <p>The Aviation Tactical Communication Systems (ATCS) is an Army Aviation Program to procure Alternative Communications (Alt Comms) A&B Kits to meet minimum acceptable near term communication requirements due to delays in the Joint Tactical Radio System (JTRS) program. Alt Comms B-Kits include the ARC-201D and the ARC-231 radio sets along with associated power amplifiers and mounts. A-Kit hardware and software is planned to be procured through the prime contractor for each platform. ATCS also procures the ARC-220 radio for Army aviation platforms.</p> <p>The JTRS Airborne Maritime Fixed (AMF) Airborne (A) radio set is a 2 channel multi-band, multi-mode radio with associated power amplifiers. Increment 1 of the AMF-A will provide the Wideband Networking Waveform (WNW), Soldier Radio Waveform (SRW) and Link-16 required for operation with the future force. Increment 2 of the AMF-A planned for FY20, will replace the Alt Comms Suite and provide current operational waveforms allowing a single hardware solution.</p> <p>Military Flight Operations Quality Assurance (MFOQA) is the systematic collection and automated analysis of operational data from aircraft for use in continuous improvement of combat readiness in the areas of operation, training, maintenance and safety. MFOQA builds on a commercial aviation initiative which uses operational trend analyses of flight data to better identify hazards, increase operational efficiency and provide more effective risk management.</p> <p>Justification: Beginning in FY12, funding on this SSN was split into the following new SSN's, Network and Mission Plan AA0712 and COMMS, NAV Surveillance AA0723.</p> <p>All COMPO 1 Active</p>		

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011				
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft				P-1 Item Nomenclature AIRBORNE AVIONICS (AA0700)							
Appropriation / Budget Activity / Serial No:				P-1 Item Nomenclature							
Program Elements for Code B Items:						Code:	Other Related Program Elements: PE 0604201A, SSN AA0704, SSN AA0712, SSN AA0723				
Description		Fiscal Years									
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total	
DGNS (AN/ASN-128D) P3I											
OSIP	Oper/Log	149.6	20.1	0.0	0.0	0.0	0.0	0.0	0.0	169.7	
Embedded GPS Inertial Navigation System (EGI) P3I											
OSIP	Oper/Log	37.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	38.2	
Aviation Tactical Communication Systems (ATCS)											
OSIP	Oper/Log	380.0	98.0	0.0	0.0	0.0	0.0	0.0	0.0	478.0	
Joint Tactical Radio System (JTRS)											
OSIP	Capability	0.0	16.5	0.0	0.0	0.0	0.0	0.0	0.0	16.5	
Mil Flight Operation Quality Assurance (MFOQA)											
OSIP		45.9	14.5	0.0	0.0	0.0	0.0	0.0	0.0	60.4	
Improved Data Modem (IDM)											
OSIP	Oper/Log	596.6	71.6	0.0	0.0	0.0	0.0	0.0	0.0	668.2	
Aviation Mission Planning System (AMPS)											
1-95-01-2185	Oper/Log	257.0	22.7	0.0	0.0	0.0	0.0	0.0	0.0	279.7	
Totals		1466.3	244.4	0.0	0.0	0.0	0.0	0.0	0.0	1710.7	

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): DGNS (AN/ASN-128D) P3I [MOD 1] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		132.5		20.1														
Procurement																			
Installation of Hardware																			
Kit Quantity - B-Kit	1665	55.6																1665	55.6
B-Kit Nonrecurring		14.3																	14.3
Kit Quantity A-Kit	1696	17.8																1696	17.8
Aircrft Integr - Nonrecurring		5.6																	5.6
ECPs		9.3		11.2															20.5
Data		4.9		0.6															5.5
Training Equipment		5.9		2.0															7.9
Systems Engineering		18.3		2.8															21.1
Other - PM Admin		7.8		0.8															8.6
Other																			
FY 2009 & Prior Equip -- Kits	1350	10.1	300	2.7														1650	12.8
FY 2010 -- Kits																			
FY 2011 Equip -- Kits																			
FY 2012 Equip -- Kits																			
FY 2013 Equip -- Kits																			
FY 2013 Equip -- Kits																			
FY 2015 Equip -- Kits																			
Total Installment	1350	10.1	300	2.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1650	12.8	
Total Procurement Cost		149.6		20.1		0.0		0.0		0.0		0.0		0.0		0.0			169.7

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Aviation Tactical Communication Systems (ATCS) [MOD 3] OSIP

MODELS OF SYSTEM AFFECTED: AH-64D, CH-47F, MH-47G,UH/HH/MH-60M, LUH-72A, UAS

DESCRIPTION / JUSTIFICATION:

Aviation Tactical Communication Systems (ATCS) is comprised of Alternate Communications (Alt Comms) and the ARC-220 HF radio. Alt Comms procures A-Kits and B-Kits to meet minimum acceptable near-term communication requirements as defined by the U.S. Army Aviation Center of Excellence (USAACE) due to delays in the JTRS program. Alt Comms B-Kits include the ARC-201D and the ARC-231 radio sets along with associated power amplifiers and mounts. B-Kit hardware is procured through existing Communications Electronics Command (CECOM) contracts. A-Kit hardware and software is planned to be procured through the prime contractor for each platform using funds in this budget line and installed on the production line. B-kits are procured prior to A-kits due to platform and radio lead times. A-Kit configuration and radio suite varies by platform. B-Kit unit costs vary based on platform configuration. The installation schedule reflects only those A and B-Kits being installed on the CH-47F platform under their Production Improvement Program (PIP). Other A and B Kits are installed at the production line and not captured under this schedule.

FY12 Base procurement dollars have been realigned to SSN AA0723 Comms, Nav Surveillance. This installation schedule reflects only those A-Kit funded with SSN AA0700. The remaining A-Kit installations are reflected on the AA0723 P-3a installation schedule.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Alt Comms is a non-developmental program in the production and deployment phase.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs 34	11	11	11	11																
Outputs 8	8	9	9	11	11	11	11													

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4			
Inputs														78
Outputs														78

METHOD OF IMPLEMENTATION: On site Log/Repair ADMINISTRATIVE LEADTIME: 0 months PRODUCTION LEADTIME: 0 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Aviation Tactical Communication Systems (ATCS) [MOD 3] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E		309.9		98.0													
Procurement																		
Installation of Hardware																		
Kit Quantity-B-Kit (ARC-231)	905	84.2	230	17.2													1135	101.4
Kit Quantity-B-Kit (ARC201D)	1117	32.4	170	5.1													1287	37.5
Kit Quantity-B-Kit (IFM)	693	14.1	170	3.2													863	17.3
Kit Quantity-A-Kit (ARC-231)	590	43.0	78	2.8													668	45.8
ECPs - Nonrecurring		125.7		30.2														155.9
System Engineering		19.0		3.2														22.2
System Test & Evaluation		19.3		18.3														37.6
Fielding/Training		14.8		7.7														22.5
Other - PM Admin		26.1		8.5														34.6
FY 2010 & Prior Equip -- Kits	34	1.4	27	1.1													61	2.5
FY 2011 Equip -- Kits			17	0.7													17	0.7
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
Total Installment	34	1.4	44	1.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	78	3.2
Total Procurement Cost		380.0		98.0		0.0		0.0		0.0		0.0		0.0		0.0		478.0

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Joint Tactical Radio System (JTRS) [MOD 4] OSIP

MODELS OF SYSTEM AFFECTED: CH-47F, UH-60M

DESCRIPTION / JUSTIFICATION:

The JTRS Airborne Maritime Fixed (AMF) Airborne (A) radio set is a 2 channel multi-band, multi-mode radio with associated power amplifiers. Increment 1 of the AMF-A will provide the Wideband Networking Waveform (WNW), Soldier Radio Waveform (SRW) and Link-16 required for operation with the future force. Increment 2 of the AMF-A planned for FY20, will replace the Alt Comms Suite and provide current operational waveforms allowing a single hardware solution. JTRS integration efforts for FY11 initiate early risk reduction activities for hardware and software integration of AMF-A onto the UH-60M and the CH-47F.

FY12 Base procurement dollars have been realigned to SSN AA0723 Comms, Nav Surveillance.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

JTRS integration efforts for FY11 initiate early risk reduction activities for hardware and software integration of AMF-A onto the UH-60M and the CH-47F.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Totals	
																		FY 2016
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME:

0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Joint Tactical Radio System (JTRS) [MOD 4] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E				16.5													
Procurement																		
Installation of Hardware																		
Kit Quantity				16.5														16.5
Aircraft Integration				13.2														13.2
Installation Kits																		
Installation Kits, Nonrecurring																		
Equipment																		
Equipment, Nonrecurring																		
Engineering Change Orders																		
System Engineering				2.3														2.3
Training Equipment																		
Support Equipment																		
Other - PM Admin				1.0														1.0
Interim Contractor Support																		
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		16.5		0.0		0.0		0.0		0.0		0.0		0.0		16.5

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Mil Flight Operation Quality Assurance (MFOQA) [MOD 5] OSIP

MODELS OF SYSTEM AFFECTED: AH-64D, CH-47F, UH-60A/L, LUH, HH-60A

DESCRIPTION / JUSTIFICATION:
 Military Flight Operations Quality Assurance (MFOQA) is the systematic collection and automated analysis of operational data from aircraft for use in continuous improvement of combat readiness in the areas of operation, training, maintenance and safety. MFOQA builds on a commercial aviation initiative which uses operational trend analyses of flight data to better identify hazards, increase operational efficiency and provide more effective risk management. Unit costs vary by aircraft platform.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):
 MFOQA is an Office of the Secretary of Defense directed program to implement an industry best practice to reduce human error type accidents.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs																						
Outputs																						

	FY 2016				FY 2017				FY 2018				FY 2019				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: 0 months PRODUCTION LEADTIME: 0 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Mil Flight Operation Quality Assurance (MFOQA) [MOD 5] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		45.9		14.5														
Procurement																			
Installation of Hardware																			
Kit Quantity B-Kits	80	6.5																80	6.5
Kit Quantity A-Kits	80	4.3																80	4.3
Other-PM Admin		10.3		3.2															13.5
System Engineering		22.4		11.3															33.7
FY 2009 & Prior Equip -- Kits	80	2.4																80	2.4
FY 2010 -- Kits																			
FY 2011 Equip -- Kits																			
FY 2012 Equip -- Kits																			
FY 2013 Equip -- Kits																			
FY 2014 Equip -- Kits																			
FY 2015 Equip -- Kits																			
FY 2016 Equip -- Kits																			
TC Equip- Kits																			
Total Installment	80	2.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	80	2.4	
Total Procurement Cost		45.9		14.5		0.0		0.0		0.0		0.0		0.0		0.0			60.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Improved Data Modem (IDM) [MOD 6] OSIP

MODELS OF SYSTEM AFFECTED: AH-64D, OH-58D, CH-47F, UH/HH-60M

DESCRIPTION / JUSTIFICATION:

The IDM is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to Tactical Internet (TI) and Fire Support (FS) internet for Army aircraft. This hardware/software solution also provides a flexible, software driven digital messaging system that is interoperable with existing Army and Joint forces battlefield operating systems. The IDM provides Situational Awareness and Joint Variable Message Format messages capability to the cockpit. The IDM is currently utilized by the AH-64D, OH-58D, CH-47F, and UH/HH-60M.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

A hardware upgrade of the IDM to mitigate parts obsolescence issues and to refresh technology will be completed in FY11 to support B-kit procurements in FY11 and outyears.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Totals	
																		FY 2016
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME:

0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Improved Data Modem (IDM) [MOD 6] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E		536.5		71.6													
Procurement																		
Installation of Hardware																		
Kit Quantity - B -Kits(IDM)	1751	54.6	116	2.5													1867	57.1
Kit Quantity - B -Kits (IDM Mods)	306	8.3	90	2.0													396	10.3
Kit Quantity - B -Kits(IDM OSA)																		
B-Kit NonRecurring		101.8		0.3														102.1
Kit Quantity- A-Kits	240	11.9															240	11.9
Aircraft Integration		254.7		31.9														286.6
ECP (B-Kit HW)		3.5																3.5
ECP (B-Kit SW)		71.8		24.8														96.6
Data		4.6																4.6
Systems Engineering		25.3		1.9														27.2
Systems Test and Evaluation		7.0		2.9														9.9
Fielding/Training		21.5		1.9														23.4
Other-PM Admin		31.6		3.4														35.0
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total Procurement Cost		596.6		71.6		0.0		0.0		0.0		0.0		0.0		0.0		668.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Aviation Mission Planning System (AMPS) [MOD 7] 1-95-01-2185

MODELS OF SYSTEM AFFECTED: AH-64A/D, CH-47D/F, OH-58D, UH-60A/L/M/Q, HH-60L/M, and UASs

DESCRIPTION / JUSTIFICATION:

The AMPS is used to automate Aviation mission planning tasks. The AMPS supports tactical command and control, mission planning, and mission management. It interfaces with the ABCS components, which 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. The electronic formats are loaded onto the aircraft platforms, initializing the communication, navigation, and situational awareness systems on fleet aircraft. Since the airframes have the responsibility for the data receptacles/busses required to interface with AMPS, there is no installation cost/schedule. The system functionality is upgraded through the Material Release Process (primarily software) in a spiral acquisition program. AMPS is fielded from the Army through Aviation Company, centered in the Combat Aviation Brigade.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Operational Requirements Document Change 1 was approved in April 1998. The AMPS was approved to enter into production through a Milestone III decision in July 2000. The AMPS initial hardware has been fielded and the latest hardware technology refresh begins in FY12. Software is being modified concurrently with Aviation fleet modernization programs. The AMPS software will be upgraded to include Tri-Service XPlan components. This upgrade is funded with RDTE and will complete in FY12.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	To Complete	Totals	
																		FY 2016
Inputs																		
Outputs																		

METHOD OF IMPLEMENTATION: N/A ADMINISTRATIVE LEADTIME: 0 months PRODUCTION LEADTIME: 0 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Aviation Mission Planning System (AMPS) [MOD 7] 1-95-01-2185

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		240.0		22.7														
Procurement																			
Installation of Hardware																			
Kit Quantity-B Kit (Computer)	2574	32.8	30	0.4														2604	33.2
Kit Quantity- B Kit (Upgrades)		6.1																	6.1
Kit Quantity -B Kit (Peripherals)		17.2																	17.2
B Kit (Nonrecurring)		12.3																	12.3
ECPs		116.1		12.1															128.2
Systems Engineering		9.4		1.0															10.4
System Test & Eval		8.0		1.4															9.4
Fielding/Training		42.6		6.0															48.6
Other - PM Admin		12.5		1.8															14.3
FY 2009 & Prior Equip -- Kits																			
FY 2010 -- Kits																			
FY 2011 Equip -- Kits																			
FY 2012 Equip -- Kits																			
FY 2013 Equip -- Kits																			
FY 2014 Equip -- Kits																			
FY 2015 Equip -- Kits																			
FY 2016 Equip -- Kits																			
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Total Procurement Cost		257.0		22.7		0.0		0.0		0.0		0.0		0.0		0.0		0.0	279.7

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature NETWORK AND MISSION PLAN (AA0712)
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Program Elements for Code B Items:			Code:		Other Related Program Elements: PE 0604201A, SSN 0700							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost				138.8		138.8	222.7	182.6	198.0	251.9		994.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1				138.8		138.8	222.7	182.6	198.0	251.9		994.2
Initial Spares												
Total Proc Cost				138.8		138.8	222.7	182.6	198.0	251.9		994.2
Flyaway U/C												
Weapon System Proc U/C												

Description:
The Network and Mission Plan budget line includes the Aviation Mission Planning System (AMPS), the Improved Data Modem (IDM), the Aviation Data Exploitation Capability (ADEC), the Aircraft Notebook (ACN), Apache Interoperability, and the Helicopter Terrain Avoidance and Warning System (HTAWS). This is a new line. Funding was previously included in the Airborne Avionics line, SSN AA0700.

The AMPS is a mission planning/battle synchronization tool that automates aviation mission planning tasks, including tactical command and control, mission planning, and flight planning. It interfaces with Army Battle Command Systems (ABCS) and associated networks which furnish the aviation commander with continuous situational awareness, allowing the commander to rapidly adjust mission plans. AMPS generates mission data in either hard copy or electronic formats. The electronic formats are loaded onto the aircraft platforms, initializing the communication, navigation, situational awareness, and weapons systems on the aircraft including the AH-64A/D, CH-47D/F, OH-58D Kiowa Warrior, UH-60A/L/M/Q, HH-60L/M, and Unmanned Aerial Systems (UAS). The AMPS program includes management of the Commander's Aviation Risk Tool (CART) and the Centralized Automated Flight Record System (CAFRS). To accommodate rapid commercial technology changes, the overall system hardware is replaced after five years of use.

The IDM is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to Tactical Internet (TI) and Fire Support (FS) internet for Army aircraft. With interfaces supporting a 6 channel transmit/receive terminal, the IDM provides radio connectivity to the ARC-201D/231, ARC-186, ARC-164, and the Blue Force Tracker's (BFT) MT-2011 Transceiver, as well as providing 1553 and Ethernet portals for rapid data transfer. This hardware/software solution also provides a flexible, software-driven digital messaging system that is interoperable with existing Army and Joint forces battlefield operating systems. The IDM provides Situational Awareness and Joint Variable Message Format messages capability to the cockpit. The IDM is currently utilized by the AH-64D, OH-58D, CH-47F, and UH/HH-60M.

The ADEC is an Army Aviation program to develop, integrate, test, and field specific capabilities needed at the Aviation unit level to implement and support improvements within aviation maintenance, operations, safety and training. ADEC will standardize data and information formats, consolidate disconnected and disparate systems containing redundant data and requiring duplicate data entry, and provide a comprehensive and fully integrated automated information system. ADEC provides a common and interoperable capability required to implement Condition Based Maintenance, Military Flight Operations Quality Assurance, and Platform Maintenance Environment processes.

The ACN is the hardware and software which provides the digital logbook functionality, technical manuals and aircraft ground station software that will reside on the laptop computer to support maintenance activity within aviation units. Procurement is to support training and fielding efforts as well as hardware to support initial fielding efforts.

Exhibit P-40, Budget Item Justification Sheet		Date: February 2011
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft		P-1 Item Nomenclature NETWORK AND MISSION PLAN (AA0712)
Program Elements for Code B Items:	Code:	Other Related Program Elements: PE 0604201A, SSN 0700
<p>Apache Interoperability is the software modification efforts required to incorporate the selected middleware into the AH-64 to support the Army Common Operating Environment.</p> <p>The HTAWS will integrate and test technology to reduce the risks of Degraded Visual Environment resulting in Controlled Flight into Terrain. The system will be integrated on CH-47F, AH-64D, OH-58D, and UH-60 modernized aircraft.</p> <p>Justification: FY12 Base procurement dollars in the amount of \$34.157 million supports the procurement of AMPS upgrades to system software to support aviation fleet modernization programs and implementation of CAFRS Phase II. AMPS hardware (B-Kits) is being replaced on a 5-year cycle to maintain pace with technology. FY12 is also the start of the latest cycle.</p> <p>FY12 Base procurement dollars in the amount of \$100.106 million supports the procurement of IDM Redesign B Kits to mitigate parts obsolescence concerns and to provide a technology refresh to the IDM hardware. These B Kits support production line programs for the AH-64D, CH-47F, HH/UH-60M helicopters and OH-58D Safety Enhancement Program. FY12 funds are also required to complete IDM Capability Set (CS) 13-14 and begin CS 15-16 modifications and integrate those modifications into AH-64D, CH-47F, OH-58D, and UH-60M. The IDM enhances Army Aviation's interoperability, lethality, and operational tempo by providing a common solution for fast and accurate data-burst communications via the TI and FS internet networks. The IDM provides a capability to communicate across the digital battlefield while also providing the flexibility to adapt to technology change.</p> <p>FY12 Base procurement dollars in the amount of \$2.918 million supports the procurement and installation of ADEC systems for Army rotary wing units. This program will provide users at all levels of the Army with the required information to conduct analyses and make decisions in the areas of maintenance, operations, safety, and training to ensure efficient fleet management, to reduce operations and support costs and to improve operational readiness. ADEC is the transformation system required for interoperability with the Army's future logistic systems.</p> <p>FY12 Base procurement dollars in the amount of \$1.651 million supports the procurement of training, fielding and help desk equipment as well as the training of the fielding team. In addition it will support the procurement of the training materials to support schoolhouse training efforts necessary to support the ACN.</p> <p>All COMPO 1 Active</p>		

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011			
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft					P-1 Item Nomenclature NETWORK AND MISSION PLAN (AA0712)					
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature					
Program Elements for Code B Items:					Code:		Other Related Program Elements: PE 0604201A, SSN 0700			
Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Aviation Mission Planning System (AMPS)										
1-95-01-2185	Oper/Log	0.0	0.0	34.2	33.8	22.6	25.2	26.9	0.0	142.7
Aviation Data Exploitation Capability (ADEC)										
0-00-00-0000		0.0	0.0	2.9	14.6	23.9	25.6	26.0	0.0	93.0
Improved Data Modem (IDM)										
OSIP	Oper/Log	0.0	0.0	100.1	141.6	102.2	109.4	164.6	0.0	617.9
Apache Interoperability										
0-00-00-0000		0.0	0.0	0.0	0.0	5.0	11.0	9.7	0.0	25.7
Aircraft Notebook (ACN)										
0-00-00-0000		0.0	0.0	1.6	7.7	5.5	2.3	7.7	0.0	24.8
Helicopter Terrain Avoidance and Warning System										
0-00-00-0000		0.0	0.0	0.0	25.0	23.4	24.5	17.0	0.0	89.9
Totals		0.0	0.0	138.8	222.7	182.6	198.0	251.9	0.0	994.0

INDIVIDUAL MODIFICATION

Date: February 2011

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

MODELS OF SYSTEM AFFECTED: AH-64A/D, CH-47D/F, OH-58D, UH-60A/L/M/Q, HH-60L/M, and UASs

DESCRIPTION / JUSTIFICATION:

The AMPS is used to automate Aviation mission planning tasks. The AMPS supports tactical command and control, mission planning, and mission management. It interfaces with the ABCS components, which 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. The electronic formats are loaded onto the aircraft platforms, initializing the communication, navigation, and situational awareness systems on the aircraft. Since the airframes have the responsibility for the data receptacles/busses required to interface with AMPS, there is no installation cost/schedule. The system functionality is upgraded through the Material Release Process (primarily software) in a spiral acquisition program. AMPS is fielded from the Army through Aviation Company, centered in the Combat Aviation Brigade.

FY12 Base procurement dollars in the amount of \$34.157 million supports the procurement of AMPS upgrades to system software to support aviation fleet modernization programs and implementation of CAFRS Phase II. AMPS hardware (B-Kits) is being replaced on a 5-year cycle to maintain pace with technology. FY12 is also the start of the latest cycle.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Operational Requirements Document Change 1 was approved in April 1998. The AMPS was approved to enter into production through a Milestone III decision in July 2000. The AMPS initial hardware has been fielded and the latest hardware technology refresh begins in FY12. Software is being modified concurrently with Aviation fleet modernization programs. The AMPS software will be upgraded to include Tri-Service XPlan components. This upgrade is funded with RDTE and will complete in FY12.

Installation Schedule

Pr Yr	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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 2016				FY 2017				FY 2018				FY 2019				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:

0 months

PRODUCTION LEADTIME:

0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E						34.2		33.8		22.6		25.2		26.9			
Procurement																		
Installation of Hardware																		
Kit Quantity-B Kit (Computer)					1180	11.5	1019	10.1			30	0.3	30	0.3			2259	22.2
Kit Quantity-B Kit (Upgrades)												1.5						1.5
Kit Quantity-B Kit (Peripherals)						0.5		0.2										0.7
B Kit (Nonrecurring)														0.5				0.5
ECPs						11.2		12.4		11.3		11.6		14.2				60.7
Systems Engineering						1.0		1.1		1.1		1.1		1.1				5.4
System Test and Eval						1.6		1.6		1.6		1.7		1.7				8.2
Fielding/Training						6.6		6.6		6.7		7.1		7.2				34.2
Other- PM Admin						1.8		1.8		1.9		1.9		1.9				9.3
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		0.0		34.2		33.8		22.6		25.2		26.9		0.0		142.7

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Improved Data Modem (IDM) [MOD 3] OSIP

MODELS OF SYSTEM AFFECTED: AH-64D, OH-58D, CH-47F, UH/HH-60M

DESCRIPTION / JUSTIFICATION:

The IDM is the common solution for digitizing Army Aviation. It performs as an internet controller and gateway to Tactical Internet (TI) and Fire Support (FS) internet for Army aircraft. This hardware/software solution also provides a flexible, software-driven digital messaging system that is interoperable with existing Army and Joint forces battlefield operating systems. The IDM provides Situational Awareness and Joint Variable Message Format messages capability to the cockpit. The IDM is currently utilized by the AH-64D, OH-58D, CH-47F, and UH/HH-60M.

FY12 Base procurement dollars in the amount of \$100.106 million supports the procurement of IDM Redesign B Kits to mitigate parts obsolescence concerns and to provide a technology refresh to the IDM hardware. These B Kits support production line programs for the AH-64D, CH-47F, HH/UH-60M helicopters and OH-58D Safety Enhancement Program. FY12 funds are also required to complete IDM Capability Set (CS) 13-14 and begin CS 15-16 modifications and integrate those modifications into AH-64D, CH-47F, OH-58D, and UH-60M. The IDM enhances Army Aviation's interoperability, lethality, and operational tempo by providing a common solution for fast and accurate data-burst communications via the TI and FS internet networks. The IDM provides a capability to communicate across the digital battlefield while also providing the flexibility to adapt to technology change. IDM provides systems to the platform PMs who are responsible for installation through the production lines and field retrofits.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

A hardware upgrade of the IDM to mitigate parts obsolescence issues and to refresh technology will be completed in FY11 to support B-kit procurements in FY11 and outyears.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	2	3	4	FY 2016				FY 2017				FY 2018				FY 2019				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:

0 months

PRODUCTION LEADTIME:

0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Improved Data Modem (IDM) [MOD 3] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E						100.1		141.6		102.2		109.4		164.6			
Procurement																		
Installation of Hardware																		
Kit Quantity- B Kit (IDM)					259	5.7	245	5.4	155	3.4	155	3.7	155	3.7			969	21.9
Kit Quantity- B Kit (IDM Mods)					21	0.5	102	2.2	10	0.2	263	6.3	241	5.8			637	15.0
B Kit (Nonrecurring)						2.8		2.8										5.6
Aircraft Integration						50.4		94.5		63.8		58.8		76.5				344.0
ECP (B Kit SW)						31.1		26.9		25.2		30.8		68.8				182.8
Systems Engineering						1.2		1.4		1.3		1.4		1.5				6.8
System Test & Eval						3.1		3.2		3.2		3.2		3.2				15.9
Fielding/Training						1.7		1.7		1.7		1.7		1.7				8.5
Other- PM Admin						3.6		3.5		3.4		3.5		3.4				17.4
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		0.0		100.1		141.6		102.2		109.4		164.6		0.0		617.9

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft
 P-1 Item Nomenclature
 COMMS, NAV SURVEILLANCE (AA0723)

Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost				132.9		132.9	121.9	166.9	183.4	137.2		742.2
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1				132.9		132.9	121.9	166.9	183.4	137.2		742.2
Initial Spares												
Total Proc Cost				132.9		132.9	121.9	166.9	183.4	137.2		742.2
Flyaway U/C												
Weapon System Proc U/C												

Description:
 The GPS provides Army Aviation with extremely accurate and secure navigation and timing, assists in situational awareness, and aids in prevention of fratricide. GPS is installed in two configurations based upon mission profile, operational requirements, and avionics architecture of the aircraft. The Doppler GPS Navigation System (DGNS) is used for the Non-bussed Utility and Cargo helicopters. The Embedded GPS Inertial Navigation System (EGI) is integrated into the Modernized Cargo, Utility, Attack, Kiowa Warrior, and Special Operations fleets of helicopters. A Pre-Planned Product Improvement (P3I) to the DGNS and EGI began in FY01 to integrate a Selective Availability Anti-Spoofing Module (SAASM) and Instrument Flight Rule (IFR) navigation capability. The P3I DGNS (AN/ASN-128D) is being installed on the Blackhawk (UH-60A/L and HH-60A/L) and Chinook (CH-47D) aircraft. The P3I EGI is being installed on UH/HH-60M, CH-47F, Longbow Apache Block III (AH-64D), Kiowa Warrior (OH-58D) and Special Operations Aircraft (SOA). M-code is a new GPS security architecture and signal in space, mandated to support navigation warfare (NAVWAR) requirements in accordance with the Assistant Secretary of Defense (ASD) Memorandum Subject: Global Positioning System User Equipment Development and Procurement Policy, dated 7 August 2006. In order to minimize aircraft integration and testing requirements, introduction of M-Code capable GPS receivers is planned to coincide with the JPALS program.

The Aviation Tactical Communication Systems (ATCS) is an Army Aviation Program to procure Alternative Communications (Alt Comms) A&B Kits to meet minimum acceptable near term communication requirements due to delays in the Joint Tactical Radio System (JTRS) program. Alt Comms B-Kits include the ARC-201D and the ARC-231 radio sets along with associated power amplifiers and mounts. A-Kit hardware and software is planned to be procured through the prime contractor for each platform. ATCS also procures the ARC-220 HF radio for Army aviation platforms.

The JTRS Airborne Maritime Fixed (AMF) Airborne (A) radio set is a 2 channel multi-band, multi-mode radio with associated power amplifiers. Increment 1 of the AMF-A will provide the Wideband Networking Waveform (WNW), Soldier Radio Waveform (SRW) and Link-16 required for operation with the future force. Increment 2 of the AMF-A planned for FY20, will replace the Alt Comms Suite and provide current operational waveforms allowing a single hardware solution.

Justification:
 FY12 Base procurement dollars in the amount of \$7.188 million supports systems engineering, program management, other non-recurring engineering, and installation of the AN/ASN-128D onto the UH-60A/L platform.
 FY12 Base procurement dollars in the amount of \$9.275 million supports procurement of EGI+ 429 B-Kits for incorporation onto the OH-58D platform.

Exhibit P-40, Budget Item Justification Sheet	Date:
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February 2011

Appropriation / Budget Activity / Serial No: <small>Aircraft Procurement, Army / 2 / Modification of aircraft</small>	P-1 Item Nomenclature <small>COMMS, NAV SURVEILLANCE (AA0723)</small>
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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FY12 Base procurement dollars in the amount of \$86.092 million supports procurement of Alt Comms A-Kits and B-Kits for the AH-64D, CH-47F, UH/HH-60M, LUH, Unmanned Aerial Systems (UAS) and Special Operations Aircraft (SOA). An Alt Comms suite of aviation radios comprises a standard configuration of non-developmental and commercially off-the-shelf equipment. The standard configuration consists of two ARC-201D radios, an Improved Frequency Modulation (IFM) Power Amplifier (two IFM s for CH-47F), and a suite of ARC-231 radios and associated ancillary items.

FY12 Base procurement dollars in the amount of \$30.300 million supports the initiation of JTRS Risk Reduction integration of AMF with WNW and SRW into the UH-60M and CH-47F and initiating AMF software integration into the Common Avionics Architecture System (CAAS).

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011			
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft					P-1 Item Nomenclature COMMS, NAV SURVEILLANCE (AA0723)					
Appropriation / Budget Activity / Serial No:					P-1 Item Nomenclature					
Program Elements for Code B Items:					Code:		Other Related Program Elements:			
Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
DGNS (AN/ASN-128D) P3I										
OSIP	Oper/Log	0.0	0.0	7.2	8.6	12.3	9.0	17.1	0.0	54.2
Embedded GPS Inertial Navigation System (EGI) P3I										
OSIP	Oper/Log	0.0	0.0	9.3	10.9	11.4	16.9	10.9	0.0	59.4
Aviation Tactical Communication Systems										
OSIP	Oper/Log	0.0	0.0	86.1	55.6	87.5	56.3	51.9	145.4	482.8
Joint Tactical Radio Systems (JTRS)										
OSIP	Capability	0.0	0.0	30.3	46.8	55.7	101.2	57.3	116.1	407.4
Totals		0.0	0.0	132.9	121.9	166.9	183.4	137.2	261.5	1003.8

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: DGNS (AN/ASN-128D) P3I [MOD 1] OSIP

MODELS OF SYSTEM AFFECTED: UH-60A/L,CH-47D,HH-60A/L

DESCRIPTION / JUSTIFICATION:

The Doppler GPS Navigation System (DGNS) is one of the aviation systems required for Digitization of the Battlefield. The ASN-128D is required to meet directed Selective Availability Anti-Spoofing Module (SAASM) security requirements and to provide a box-level Instrument Flight Rules (IFR) navigation capability. A P3I for the current ASN-128B/DGNS for the UH-60A/L, HH-60A/L, and CH-47D aircraft is being updated to an ASN-128D. The AN/ASN-128D/DGNS will meet the regulatory requirements of civil airspace for the UH-60A/L, HH-60A/L, and CH-47D aircraft. A-Kit unit procurement and installation costs vary by platform.

FY12 Base procurement dollars in the amount of \$7.188 million supports system engineering, program management, other non-recurring engineering, and installation of the AN/ASN-128D onto the UH-60A/L platform. An ECP to the DGNS Signal Data Computer (SDC) integrates inertial measurement with existing Doppler and GPS signals for a tri-sensor navigation system, and provides an upgrade path for DGNS to integrate a GPS receiver and JPALS functionality.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Full Rate Production (FRP) contract awarded August 2005 for B-Kits. The A-Kits have been developed and tested for the UH-60A/L and CH-47D.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs						12	12	11	11												
Outputs							12	12	11	11											
		FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Inputs																			46		
Outputs																			46		

METHOD OF IMPLEMENTATION: On Site/Log Repair ADMINISTRATIVE LEADTIME: 2 months PRODUCTION LEADTIME: 12 months
 Contract Dates: FY 2012 - Dec 11 FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - Nov 12 FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): DGNS (AN/ASN-128D) P3I [MOD 1] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E						7.2		8.6		12.3		9.0		17.1			
Procurement																		
Installation of Hardware																		
Kit Quantity - B-Kit																		
B-Kit, Nonrecurring										3.4								3.4
Kit Quantity - A-Kit																		
Aircft Integ-Nonrecurring																		
Engineering Change Orders						1.1		1.2		1.2		1.2		8.9				13.6
Data						0.5		1.2		1.2		1.2		1.2				5.3
Training Equipment						1.8		2.7		3.0		3.0		3.4				13.9
Systems Engineering						2.7		2.8		2.8		2.8		2.8				13.9
Other - PM Admin						0.8		0.7		0.7		0.8		0.8				3.8
Other																		
Support Equipment																		
Interim Contractor Support																		
FY 2010 & Prior Equip -- Kits					46	0.3											46	0.3
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 Equip -- Kits																		
TC Equip- Kits																		
Total Installment	0	0.0	0	0.0	46	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	46	0.3
Total Procurement Cost		0.0		0.0		7.2		8.6		12.3		9.0		17.1		0.0		54.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Embedded GPS Inertial Navigation System (EGI) P3I [MOD 2] OSIP

MODELS OF SYSTEM AFFECTED: UH/HH/MH-60M, CH-47F, MH-47G, AH-64D Block III, OH-58D

DESCRIPTION / JUSTIFICATION:

Embedded GPS/INS (Global Positioning System/Inertial Navigation Systems) (EGI) is one of the aviation systems required for Digitization of the Battlefield. Fielding of the GPS EGI Preplanned Product Improvement (P3I) continues. This P3I modification provides enhanced security with the directed Selective Availability Anti-Spoofing Module (SAASM) and GPS Instrument Flight Rules (IFR) navigation capability, in accordance with civil airspace regulatory requirements. Since the EGI P3I configuration will be applied to UH/HH-60M, CH-47F, AH-64D Block III and OH-58D during RECAP, the aircraft platforms funded integration non-recurring and recurring costs and this budget line funded costs for the MH-60M and MH-47G costs. The next modification to the EGI will be to include M-Code security requirements into the currently fielded equipment. The aircraft platforms budget for procurement and A Kit integration which are installed on the production line.

FY12 Base procurement dollars in the amount of \$9.275 million will support procurement of EGI+ 429 B-Kits for incorporation onto the OH-58D platform.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

The Non-Recurring Engineering (NRE) for the GPS receiver for platforms without the Joint Precision Approach and Landing System (JPALS) will begin in FY15. The EGI B-kits being procured in FY16 and out are to incorporate M-code into the EGI.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4			
Inputs														
Outputs														

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME: 0 months

Contract Dates: FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates: FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Embedded GPS Inertial Navigation System (EGI) P3I [MOD 2] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E						9.3		10.9		11.4		16.9		10.9					59.4
Procurement																			
Installation of Hardware																			
Kit Quantity - B-Kit					65	6.6	74	7.5	74	7.5	74	7.6						287	29.2
M Code Upgrade B-Kit													74	7.7				74	7.7
B-Kit Nonrecurring												6.0							6.0
Aircraft Integration																			
Nonrecurring																			
Engineering Change Orders						0.1		0.7		1.0		0.3		0.2					2.3
Data						0.1		0.1		0.1		0.2		0.2					0.7
Training Equipment						0.1		0.1		0.2		0.2		0.2					0.8
Systems Engineering						1.4		1.5		1.6		1.6		1.6					7.7
Other - PM Admin						1.0		1.0		1.0		1.0		1.0					5.0
Interim Contractor Support																			
FY 2010 & Prior Equip -- Kits																			
FY 2011 -- Kits																			
FY 2012 Equip -- Kits																			
FY 2013 Equip -- Kits																			
FY 2014 Equip -- Kits																			
FY 2015 Equip -- Kits																			
FY 2016 Equip -- Kits																			
FY 2017 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	0.0	0	0.0	0	0.0	0
Total Procurement Cost		0.0		0.0		9.3		10.9		11.4		16.9		10.9		0.0			59.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Aviation Tactical Communication Systems [MOD 3] OSIP

MODELS OF SYSTEM AFFECTED: AH-64D, CH/MH-47F, UH/HH/MH-60M, LUH-72A, UAS

DESCRIPTION / JUSTIFICATION:

Aviation Tactical Communication Systems (ATCS) is comprised of Alternate Communications (Alt Comms) and the ARC-220 HF radio. Alt Comms procures A-Kits and B-Kits to meet minimum acceptable near-term communication requirements as defined by the U.S. Army Aviation Center of Excellence (USAACE) due to delays in the JTRS program. Alt Comms B-Kits include the ARC-201D and the ARC-231 radio sets along with associated power amplifiers and mounts. B-Kit hardware is procured through existing Communications Electronics Command (CECOM) contracts. A-Kit hardware and software is planned to be procured through the prime contractor for each platform using funds in this budget line and installed on the production line. B-kits are procured prior to A-kits due to platform and radio lead times. A-Kit configuration and radio suite varies by platform. B-Kit unit costs vary based on platform configuration. The installation schedule reflects only those A and B-Kits being installed on the CH-47F platform under their Production Improvement Program (PIP). Other A and B Kits are installed at the production line and not captured under this schedule and will be funded by the aircraft platform PM office.

FY12 Base procurement dollars in the amount of \$86.092 million will support procurement of Alt Comms A-Kits and B-Kits for the AH-64D, CH/MH-47F, UH/HH/MH-60M, LUH, and Unmanned Aerial Systems (UAS) aircraft. An Alt Comms suite of aviation radios comprises a standard configuration of non-developmental and commercially off-the-shelf equipment. The standard configuration consists of two ARC-201D radios, an Improved Frequency Modulation (IFM) Power Amplifier (two IFMs for CH-47F), and a suite of ARC-231 radios.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Alt Comms is a non-developmental program in the production and deployment phase.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs					17	17	17	18	13	13	13	13	16	16	16	15	12	12	12	12
Outputs								17	17	17	18	13	13	13	13	16	16	16	15	12

Pr Yr Totals	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	6	6	6	6	12	12	12	12	12	12	12	12	9	9				370
Outputs	12	12	12	6	6	6	6	12	12	12	12	12	12	12	12	9	9	370

METHOD OF IMPLEMENTATION: Onsite/Log Repair **ADMINISTRATIVE LEADTIME:** 2 months **PRODUCTION LEADTIME:** 10 months
Contract Dates: FY 2012 - Dec 11 FY 2013 - Dec 12 FY 2014 - Dec 13
Delivery Dates: FY 2012 - Sep 12 FY 2013 - Sep 13 FY 2014 - Sep 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Aviation Tactical Communication Systems [MOD 3] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E						87.1		55.8		87.8		56.6		52.1		152.7		492.1
Procurement																			
Installation of Hardware																			
Kit Quantity-B-Kit (ARC-231)					383	34.7	190	17.0	284	27.7	133	13.5	123	12.8	432	44.7	1545	150.4	
Kit Quantity-B-Kit (ARC201D)					252	7.8	98	3.1	188	6.0	106	3.5	112	3.7	350	12.3	1106	36.4	
Kit Quantity-B-Kit (IFM)					252	4.8	98	1.9	188	3.7	106	2.2	112	2.3	350	9.7	1106	24.6	
Kit Quantity-A-Kit					78	3.3	41	4.3	46	12.4	24	6.6	24	6.7	114	33.1	327	66.4	
ECPs - Nonrecurring						19.9		16.1		14.9		3.9		6.8				61.6	
Systems Engineering						3.3		3.4		3.5		3.5		3.7				17.4	
System Test & Evaluation						1.3												1.3	
Fielding/Training						4.1		4.9		2.5		2.6		3.7				17.8	
Other - PM Admin						3.5		2.7		2.7		2.1		2.6				13.6	
FY 2010 & Prior Equip -- Kits																			
FY 2011 -- Kits					43	2.1												43	2.1
FY 2012 Equip -- Kits					26	1.3	52	2.2										78	3.5
FY 2013 Equip -- Kits									41	5.7								41	5.7
FY 2014 Equip -- Kits									22	8.4	24	9.2						46	17.6
FY 2015 Equip -- Kits											24	9.2						24	9.2
FY 2016 Equip -- Kits													24	9.6				24	9.6
FY 2017 Equip -- Kits															48	19.2		48	19.2
TC Equip- Kits															66	26.4		66	26.4
Total Installment	0	0.0	0	0.0	69	3.4	52	2.2	63	14.1	48	18.4	24	9.6	114	45.6	370	93.3	
Total Procurement Cost		0.0		0.0		86.1		55.6		87.5		56.3		51.9		145.4		482.8	

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Joint Tactical Radio Systems (JTRS) [MOD 4] OSIP

MODELS OF SYSTEM AFFECTED: AH-64D, CH-47F, MH-47G, UH/HH/MH-60M, UAS

DESCRIPTION / JUSTIFICATION:

The JTRS Airborne Maritime Fixed (AMF) Airborne (A) radio set is a 2 channel multi-band, multi-mode radio with associated power amplifiers and filters. This radio set will be configured with Wideband Networking Waveform (WNW), Soldier Radio Waveform (SRW) capabilities for the AH-64D, CH-47F, and UH-60M fleet. The radio set will also provide a Link 16 capability for the AH-64D Block III fleet. This funding will develop and qualify A-Kits for these aircraft and support the integration of the B-Kit with the A-Kit. Further, this funding will provide for the installation of A-Kits and radio sets in these aircraft, via retrofit, as follows: All CH-47F aircraft; all UH-60M aircraft not modified on the production line; and AH-64D Lots 1-5. This funding will also include procurement and installation of retrofit installation kits to provide WNW and SRW capability for the Special Operations Aircraft (SOA) aircraft. Additionally this funding implements AMF software integration into the Common Avionics Architecture System (CAAS).

FY12 Base Procurement dollars in the amount of \$30.300 million supports continued Risk Reduction integration of AMF with WNW and SRW into the UH-60M and CH-47F, and AMF software integration into the CAAS.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

JTRS A kit development, integration and test will be completed in FY 16. JTRS A kit procurement begins in FY 15 for retrofit incorporation in Apache Block III, CH-47F and UH-60M.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017				FY 2018				FY 2019				To Complete	Totals	
	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs	31	100	100	100	63	60	60	60	72	73	73	72	53	54	54	52	194	1271
Outputs		31	100	100	100	61	60	60	60	72	73	73	72	53	54	54	248	1271

METHOD OF IMPLEMENTATION: Onsite/Log Repair ADMINISTRATIVE LEADTIME: 3 months PRODUCTION LEADTIME: 12 months
 Contract Dates: FY 2012 - FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Joint Tactical Radio Systems (JTRS) [MOD 4] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E						30.3		46.8		55.7		101.2		57.3		116.1	
Procurement																		
Installation of Hardware																		
Kit Quantity - B-Kit																		
B-Kit Nonrecurring																		
Kit Quantity - A-Kit											331	57.2	243	26.7	697	67.3	1271	151.2
Aircraft Integration					30.3		44.8		52.7					0.4				147.6
Nonrecurring																		
Engineering Change Orders												5.1		7.2				12.3
Data																		
Training Equipment												14.6		7.0				21.6
System Test and Evaluation							2.0		3.0			4.9						9.9
Other - PM Admin																		
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits													331	16.0			331	16.0
FY 2016 Equip -- Kits															243	12.6	243	12.6
FY 2017 Equip -- Kits															290	15.0	290	15.0
TC Equip- Kits															407	21.2	407	21.2
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	331	16.0	940	48.8	1271	64.8
Total Procurement Cost		0.0		0.0		30.3		46.8		55.7		101.2		57.3		116.1		407.4

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	386.2	102.8	100.9	105.5		105.5	93.6	81.6	71.1	67.6		1009.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	386.2	102.8	100.9	105.5		105.5	93.6	81.6	71.1	67.6		1009.4
Initial Spares												
Total Proc Cost	386.2	102.8	100.9	105.5		105.5	93.6	81.6	71.1	67.6		1009.4
Flyaway U/C												
Weapon System Proc U/C												

Description:

This budget line supports procurement of Global Air Traffic Management equipment for both Fixed Wing (FW) and Rotary Wing (RW) aircraft.

COMPO Break see pg 3.

Exhibit P-5, Weapon ACFT Cost Analysis	Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft		P-1 Line Item Nomenclature: GATM Rollup (AA0711)			Weapon System Type:			Date: February 2011		

ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Fixed Wing Aircraft (AA0703)		13163			14051			14396						14396		
Rotary Wing Aircraft (AA0704)		89661			86811			91123						91123		
Total:		102824			100862			105519						105519		

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Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature GATM - Fixed Wing Aircraft (AA0703)
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Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	136.5	13.2	14.1	14.4		14.4	21.9	23.0	23.2	18.8		265.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	136.5	13.2	14.1	14.4		14.4	21.9	23.0	23.2	18.8		265.0
Initial Spares												
Total Proc Cost	136.5	13.2	14.1	14.4		14.4	21.9	23.0	23.2	18.8		265.0
Flyaway U/C												
Weapon System Proc U/C												

P-40 Breakdown										
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016
Active	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	4848.0	5413.0	7185.0	0.0	7185.0	10942.0	11459.0	11582.0	9384.0
National Guard	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	3808.0	6418.0	4327.0	0.0	4327.0	6590.0	6902.0	6976.0	5651.0
Reserve	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	4507.0	2220.0	2884.0	0.0	2884.0	4394.0	4601.0	4651.0	3767.0
Total	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	13163	14051	14396	0	14396	21926	22962	23209	18802

Description:
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 avionics equipment. Meeting worldwide GATM requirements will entail the upgrading of some existing avionics and displays and the procurement of new systems for the fixed wing fleet.

Justification:
FY12 Base procurement dollars in the amount of \$14.396 million supports GATM equipment for Fixed Wing aircraft. Fixed Wing aircraft were purchased with avionics available 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 meet GATM requirements. 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, new communication and navigation systems will increase reliability and maintainability by employing commercial

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature GATM - Fixed Wing Aircraft (AA0703)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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systems thereby improving aircraft availability for mission requirements.

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature GATM - Fixed Wing Aircraft (AA0703)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Global Air Traffic Management - FW										
GATM-FW	Operational	149.7	14.1	14.4	21.9	23.0	23.2	18.8	0.0	265.1
Totals		149.7	14.1	14.4	21.9	23.0	23.2	18.8	0.0	265.1

INDIVIDUAL MODIFICATION

Date: February 2011

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

MODELS OF SYSTEM AFFECTED: All series Army fixed wing aircraft

DESCRIPTION / JUSTIFICATION:

This effort will update and modernize communication, navigation, and surveillance equipment to current international requirements, allow worldwide deployments and continued safe operations. Failure to modify the Fixed Wing fleet will prevent worldwide deployability.

As currently equipped, the aircraft are not suitable for worldwide deployment nor capable of using modern navigation and air traffic control capabilities. A variety of equipment is required by GATM including: datalink technology, satellite communication (SATCOM), communication management units, Electronic Flight Information System, surveillance equipment, displays, radios, navigation equipment and multi-mode receivers. GATM requirements are evolving and 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. Kit configuration varies by aircraft. Consequently, kit unit and installation costs vary significantly from year to year.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Development is not required for avionics system cockpit upgrades.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	178				2	1	1	1		2	1	2	2	3	4	7	6	9	7	8	8
Outputs	174	4				1	1	1	1	1	2	1	2	2	3	4	7	6	9	7	8

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
Inputs	8	4	5	4																	263
Outputs	8	8	4	5	4																263

METHOD OF IMPLEMENTATION: Contractor **ADMINISTRATIVE LEADTIME:** 2 months **PRODUCTION LEADTIME:** 6 months

Installation

Contract Dates: FY 2012 - Dec 11 FY 2013 - Dec 12 FY 2014 - Dec 13

Delivery Dates: FY 2012 - May 12 FY 2013 - May 13 FY 2014 - May 14

INDIVIDUAL MODIFICATION

Date: February 2011

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

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E																	
Procurement																		
Installation of Hardware																		
Installation Kits	178	104.5	2	9.8	3	10.0	7	15.2	20	16.0	32	16.1	21	13.1			263	184.7
Kit Quantity																		
Installation Kits, Nonrecurring Equipment																		
Equipment, Nonrecurring																		
Engineering Change Orders																		
Data		0.8		0.1		0.1		0.1		0.1		0.1		0.1				1.4
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
FY 2010 & Prior Equip -- Kits	178	44.4															178	44.4
FY 2011 -- Kits			2	4.2													2	4.2
FY 2012 Equip -- Kits					3	4.3											3	4.3
FY 2013 Equip -- Kits							7	6.6									7	6.6
FY 2014 Equip -- Kits									20	6.9							20	6.9
FY 2015 Equip -- Kits											32	7.0					32	7.0
FY 2016 Equip -- Kits													21	5.6			21	5.6
FY 2017 Equip -- Kits																		
TC Equip- Kits																		
Total Installment	178	44.4	2	4.2	3	4.3	7	6.6	20	6.9	32	7.0	21	5.6	0	0.0	263	79.0
Total Procurement Cost		149.7		14.1		14.4		21.9		23.0		23.2		18.8		0.0		265.1

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature GATM - Rotary Wing Aircraft (AA0704)
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Program Elements for Code B Items:			Code:		Other Related Program Elements: SSN AA0703, SSN AA0711							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	249.7	89.7	86.8	91.1		91.1	71.7	58.6	47.9	48.8		744.3
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	249.7	89.7	86.8	91.1		91.1	71.7	58.6	47.9	48.8		744.3
Initial Spares												
Total Proc Cost	249.7	89.7	86.8	91.1		91.1	71.7	58.6	47.9	48.8		744.3
Flyaway U/C												
Weapon System Proc U/C												

Description:

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. GATM is a DoD term that describes the equipment, training, and procedures mandated by Civilian Air Traffic Control (ATC) authorities in order to operate within 21st century airspace. Most ground based navigation aids will be phased out of service as the world transitions to a modernized air traffic management system. The modernization is designed to meet the current and future service demands posed by aviation growth. The advanced architecture will provide improved safety, accessibility, flexibility, predictability, reliability, capacity, efficiency, and security. Military aircraft will face significant flight restrictions if not GATM equipped. GATM requirements are driven by civil aviation authorities and are not under DoD control. Meeting worldwide GATM requirements will entail the upgrading of some existing avionics and the procurement of new systems for rotary wing and Unmanned Aircraft System (UAS) fleets. Included in the GATM Program is the European mandated Mode S requirement which is being met with the fielding of the APX-118, an upgrade to the Identification Friend or Foe (IFF) to add Mode 5 capability which will be achieved thru the fielding of the APX-123, automatic dependant surveillance broadcast (ADS-B) which will be a preplanned product improvement (P31) to the APX-123, and upgrades to meet requirements for 8.33 kHz channel spacing being met with the ARC-231.

GATM provides Army aircraft improved capabilities to allow them to continue to operate in civil controlled airspace without threat of exclusion. IFF Mode 5 provides enhanced security and greatly improved performance over Mode 4. It also improves compatibility with civil ATC by providing less interference. The Full Operational Capability (FOC) for Mode 5 is 2020. Europe currently mandates Mode S and plans expansion of 8.33 kHz Very High Frequency - Amplitude Modulation (VHF-AM) in controlled airspace to ground level in high volume traffic areas. The Federal Aviation Administration (FAA) has mandated the use of ADS-B by 2020. Army aircraft will not be allowed to transit through or operate in European airspace affected by these mandates unless the necessary Mode S upgrades are made. The Mode S transponder impacts European based aircraft as well as those deploying to Europe. The recurring procurement of Mode S kits started in FY02 and procurement and installations continue. Benefits of GATM include direct routing through civil airspace resulting in significant savings in both time and money. It allows unrestricted operations in worldwide civil controlled airspace and improves safety and operational efficiency while meeting the new worldwide frequency spectrum requirements.

Justification:

FY12 Base procurement dollars in the amount of \$1.525 million supports the final installations of the remaining APX-118s for the UH-60A/L aircraft.

FY12 Base procurement dollars in the amount of \$10.539 million supports procurement and installation of APX-123 B-kits and A-Kits for the AH-64D, CH-47D/F, UH-60A/L/M, OH-58D, MH-60L/K/M, MH-47D/E/G, A/MH-6 and Unmanned Aircraft Systems (UAS) to provide these aircraft with enhanced IFF Mode 5 capabilities.

FY12 Base procurement dollars in the amount of \$11.067 million supports procurement and installation of Mode 5 upgrade kits which convert previously fielded APX-118 transponders to APX-123

Exhibit P-40, Budget Item Justification Sheet	Date:
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February 2011

Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature GATM - Rotary Wing Aircraft (AA0704)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: SSN AA0703, SSN AA0711
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transponders.

FY12 Base procurement dollars in the amount of \$38.774 million supports the associated Non recurring engineering (NRE) integration which will facilitate an enhanced Global Positioning System (GPS) to the Air Traffic Control (ATC) for the applicable aviation platforms.

FY12 Base procurement dollars in the amount of \$16.694 million supports procurement and installation of ARC-231 B-kits and A-Kits on the HH/UH-60 A/L platform.

FY12 Base procurement dollars in the amount of \$12.524 million supports procurement and installation of ARC-231 maintenance transition doors on the UH-60 A/L platform.

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft	P-1 Item Nomenclature GATM - Rotary Wing Aircraft (AA0704)
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Appropriation / Budget Activity / Serial No:	P-1 Item Nomenclature
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Program Elements for Code B Items:	Code:	Other Related Program Elements: SSN AA0703, SSN AA0711
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Description		Fiscal Years								
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total
Global Air Traffic Mgmt- RW APX-118										
OSIP	Oper/Log	213.3	8.0	1.5	0.0	0.0	0.0	0.0	0.0	222.8
Global Air Traffic Mgmt- RW APX-123										
OSIP	Oper/Log	46.6	17.1	10.5	11.5	10.4	12.6	0.6	0.6	109.9
Global Air Traffic Mgmt- RW APX-118 Upgrade Kits										
OSIP	Oper/Log	13.7	11.5	11.1	10.0	7.3	2.6	1.2	1.9	59.3
Global Air Traffic Mgmt- RW ADS-B Out										
OSIP	Oper/Log	0.0	0.0	38.8	34.8	25.2	29.9	38.7	153.2	320.6
Global Air Traffic Mgmt- RW ARC-231										
OSIP	Oper/Log	46.5	35.8	16.7	10.6	10.1	2.3	4.4	0.9	127.3
Global Air Traffic Mgmt- RW Transission Doors										
OSIP	Oper/Log	19.3	14.4	12.5	4.8	5.6	0.5	3.9	1.5	62.5
Totals		339.4	86.8	91.1	71.7	58.6	47.9	48.8	158.1	902.4

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Global Air Traffic Mgmt- RW APX-118 [MOD 1] OSIP

MODELS OF SYSTEM AFFECTED: CH-47D/F,UH-60A/L/M,MH-47D/E/G,MH-60L/K/M,A/MH-6,AH-64A/D,HH-60L/M,OH-58D,UAS

DESCRIPTION / JUSTIFICATION:
 The APX-118 is a replacement for the APX-100 and provides all transponder capabilities of Mode 1, 2, 3/A, 4 and C. Additionally, the transponder will provide Mode S Level 2 capability. Mode S provides a unique address for selective interrogations which provide surveillance benefits, improving aircraft identification. The APX-118 is currently being fielded to address the GATM Mode S requirement. Fielding is scheduled to continue thru 2012. Europe currently mandates Mode S for all aircraft operations. FY12 Base procurement dollars in the amount of \$1.525 million supports the final installations of the APX-118 onto the UH-60A/L aircraft.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):
 The APX-118 reached Milestone III in Aug 2003. First unit equipped (FUE) occurred in Jun 2004.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	1243	80	80	79	80	56	55	55	55												
Outputs	1164	79	79	80	79	77	56	56	57	56											

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs																		1783
Outputs																		1783

METHOD OF IMPLEMENTATION: Onsite/Log Repair ADMINISTRATIVE LEADTIME: 2 months PRODUCTION LEADTIME: 3 months
 Contract Dates: FY 2012 - Dec 11 FY 2013 - FY 2014 -
 Delivery Dates: FY 2012 - Feb 12 FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Global Air Traffic Mgmt- RW APX-118 [MOD 1] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		193.3		8.0		1.5												
Procurement																			
Installation of Hardware																			
Kit Qty- APX-118 B-Kits	2635	113.8																2635	113.8
B-Kit Nonrecurring		12.3																	12.3
Kit Qty- APX-118 A-Kits	2048	9.2																2048	9.2
Aircraft Integration		8.4		0.6															9.0
Engineering Change Orders		8.1		0.1															8.2
Data		5.0		0.8															5.8
Training Equipment		2.9		1.5															4.4
Fielding		4.5		0.8															5.3
Systems Engr/Prog Mgt(SEPM)		15.0		0.5															15.5
System Test & Eval (ST&E)		2.7		0.8															3.5
Other- PM Admin		13.8		0.7															14.5
Other		8.2																	8.2
FY 2010 & Prior Equip -- Kits	1243	9.4	319	2.2	221	1.5												1783	13.1
FY 2011 -- Kits																			
FY 2012 Equip -- Kits																			
FY 2013 Equip -- Kits																			
FY 2014 Equip -- Kits																			
FY 2015 Equip -- Kits																			
FY 2016 Equip -- Kits																			
FY 2017 Equip -- Kits																			
TC Equip- Kits																			
Total Installment	1243	9.4	319	2.2	221	1.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1783	13.1	
Total Procurement Cost		213.3		8.0		1.5		0.0		0.0		0.0		0.0		0.0			222.8

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Global Air Traffic Mgmt- RW APX-123 [MOD 2] OSIP

MODELS OF SYSTEM AFFECTED: CH-47D/F, UH-60A/L/M, MH-47D/E/G, MH-60L/K/M, A/MH-6, AH-64A/D, HH60L/M, OH-58D, UAS

DESCRIPTION / JUSTIFICATION:

The APX-123 is an upgrade to the APX-118 and provides Mode 5 Level 2 Capability. Mode 5 presents an improvement to the aging Mode 4 Identification, Friend, or Foe (IFF) System that uses modern modulation, coding, and cryptographic techniques to overcome performance and security problems. It also improves compatibility with civil Air Traffic Control (ATC) by providing less interference. Procurement of A-Kits reflects requirements for the Unmanned Aerial Systems (UAS) Shadow and the HH-60A/L. Installation of HH-60 A/L A-Kits are paid for by the aircraft platform. The other aircraft platforms fund the procurement and installation of their A-Kits since they are installed at the production line.

FY12 Base procurement dollars in the amount of \$10.539 million supports procurement and installation of APX-123 B-kits and A-Kits for the HH-60A/L and Unmanned Aircraft Systems (UAS) Shadow to provide these aircraft with enhanced IFF Mode 5 capabilities.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

The Navy is the lead service. The APX-123 received LRIP approval on 27 July 2006. The Navy's Initial Operational Test & Evaluation (IOT&E) is planned for 4th quarter FY 2011 with a Full Rate Production (FRP) decision planned for 3rd Quarter FY 2012. The DoD mandated Initial Operational Capability (IOC) is 2014 and Full Operational Capability (FOC) is 2020.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs					15	15	15	15	20	20	20	20	18	20	21	21	23	22	17	18
Outputs						15	15	15	15	20	20	20	20	18	20	21	21	23	22	17

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	20	20	21	19	21	22	18	19										460
Outputs	18	20	20	21	19	21	22	18	19									460

METHOD OF IMPLEMENTATION: Onsite/Log Repair ADMINISTRATIVE LEADTIME: 2 months PRODUCTION LEADTIME: 3 months
 Contract Dates: FY 2012 - Dec 11 FY 2013 - Dec 12 FY 2014 - Dec 13
 Delivery Dates: FY 2012 - Feb 12 FY 2013 - Feb 13 FY 2014 - Feb 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Global Air Traffic Mgmt- RW APX-123 [MOD 2] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E		37.6		17.1		10.5		11.5		10.4		12.6		0.6		0.6	
Procurement																		
Installation of Hardware																		
Kit Quantity - APX-123 B-Kits	478	7.0	170	6.9	217	7.6	231	8.2	222	6.9	205	7.4					1523	44.0
B-Kits, Nonrecurring		19.4		1.2		1.0		1.2		1.3		3.0						27.1
Kit Quantity - APX-123 A-Kits	32	0.1			100	0.5	125	0.6	125	0.6	110	0.6					492	2.4
AirCrft Integ/RCUs/KIV77		9.2		4.5														13.7
ECP		3.1																3.1
Data																		
Training Equipment																		
Fielding																		
Systems Eng/Prog Mgt (SEPM)		4.9		3.5		0.8		0.9		0.7		0.8						11.6
System Test & Eval (ST&E)																		
Other PM Admin		2.9		1.0		0.2		0.1		0.3		0.2						4.7
Other																		
FY 2010 & Prior Equip -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits					60	0.4	40	0.2									100	0.6
FY 2013 Equip -- Kits							40	0.3	80	0.6	5						125	0.9
FY 2014 Equip -- Kits											75	0.6	50	0.4			125	1.0
FY 2015 Equip -- Kits													30	0.2	80	0.6	110	0.8
To Complete																		
Total Installment	0	0.0	0	0.0	60	0.4	80	0.5	80	0.6	80	0.6	80	0.6	80	0.6	460	3.3
Total Procurement Cost		46.6		17.1		10.5		11.5		10.4		12.6		0.6		0.6		109.9

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Global Air Traffic Mgmt- RW APX-118 Upgrade Kits [MOD 3] OSIP

MODELS OF SYSTEM AFFECTED: CH-47D/F, UH-60A/L/M, MH-47D/E/G, MH-60L/K/M, A/MH-6, AH-64A/D, HH60L/M, OH-58D, UAS

DESCRIPTION / JUSTIFICATION:

The APX-118 was designed to allow it to be upgraded to provide IFF Mode 5 capabilities. The Mode 5 upgrade kit is used to convert an APX-118 to an APX-123. Tobyhanna Army Depot (TYAD) will accomplish this upgrade effort. All APX-118s will be upgraded to an APX-123. The upgrade kit consists of a new cryptographic circuit card assembly which provides both IFF Mode 4 and Mode 5 capabilities and enhanced security provisions to the transponder. PM AME is procuring 357 kits for production and training equipment installs in which the product office will not fund those installations.

FY12 Base procurement dollars in the amount of \$11.067 million supports procurement and installation of Mode 5 upgrade kits which convert previously fielded APX-118 transponders to APX-123 transponders.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Inputs	5	48	46	46	43	113	112	113	111	130	131	129	130	120	120	120	120	111	110	109	112
Outputs	5	48	46	46	43	113	112	112	113	111	130	131	129	130	120	120	120	120	111	110	109

1	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Inputs	97	97	97	97	82	82	83	82										2796
Outputs	112	97	97	97	97	82	82	83	82									2796

METHOD OF IMPLEMENTATION: Onsite/Log Repair ADMINISTRATIVE LEADTIME: 2 months PRODUCTION LEADTIME: 3 months
 Contract Dates: FY 2012 - Dec 11 FY 2013 - Dec 12 FY 2014 - Dec 13
 Delivery Dates: FY 2012 - Feb 12 FY 2013 - Feb 13 FY 2014 - Feb 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Global Air Traffic Mgmt- RW APX-118 Upgrade Kits [MOD 3] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E		13.7		11.5		11.1		10.0		7.3		2.6		1.2		1.9	
Procurement																		
Installation of Hardware																		
Kit Qty- Upgrade B-Kits	1060	9.3	560	6.7	522	6.3	489	5.9	501	4.5	21	0.3					3153	33.0
B-Kits Nonrecurring		0.9		0.3														1.2
Kit Qty- Upgrade A-Kits	32	0.1	240	1.2	250	1.3	250	1.3	250	0.9	169	0.7					1191	5.5
Engineering Change Orders		0.1																0.1
Equipment																		
Training Equipment																		
Fielding																		
System Eng/Prog Mgt (SEPM)		3.2		2.4		0.7		0.8		0.9		0.9						8.9
System Test & Eval (ST&E)																		
Other- PM Admin																		
FY 2010 & Prior Equip -- Kits	5	0.1	183	0.9	449	2.8	423	1.6									1060	5.4
FY 2011 -- Kits							97	0.4	463	1.0							560	1.4
FY 2012 Equip -- Kits									17		442	0.7	63	0.2			522	0.9
FY 2013 Equip -- Kits													325	1.0	164	0.9	489	1.9
FY 2014 Equip -- Kits															165	1.0	165	1.0
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 Equip -- Kits																		
TC Equip- Kits																		
Total Installment	5	0.1	183	0.9	449	2.8	520	2.0	480	1.0	442	0.7	388	1.2	329	1.9	2796	10.6
Total Procurement Cost		13.7		11.5		11.1		10.0		7.3		2.6		1.2		1.9		59.3

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Global Air Traffic Mgmt- RW ADS-B Out [MOD 4] OSIP

MODELS OF SYSTEM AFFECTED: CH-47D/F, UH-60A/L/M, MH-47D/E/G, MH-60L/K/M, A/MH-6, AH-64A/D, HH60L/M, OH-58D, UAS

DESCRIPTION / JUSTIFICATION:

Automatic Dependent Surveillance - Broadcast (ADS-B) Out is a Preplanned Product Improvement (P3I) to the APX-123. ADS-B Out broadcasts information about an aircraft through an onboard transmitter to a ground receiver. Use of ADS-B Out will move air traffic control from a radar based system to a satellite-derived aircraft location system. The Federal Aviation Administration (FAA) recently published their rulemaking decision which mandates ADS-B equipage by 2020 for all aircraft operations in the National Airspace.

FY12 Base procurement dollars in the amount of \$38.774 million supports the associated Non recurring engineering (NRE) integration which will facilitate an enhanced Global Positioning System (GPS) to the Air Traffic Control (ATC) for the applicable aviation platforms.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

ADS-B Out NRE will be completed in 2012. The projected IOC date for ADS-B Out is 2014. FAA mandates ADS-B equipage by 2020.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																	51	51	53	55
Outputs																		51	51	53

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	50	54	53	53	263	263	263	263	262	261	264	264	263	262	261	265	1471	5045
Outputs	55	50	54	53	53	263	263	263	263	262	261	264	264	263	262	261	1736	5045

METHOD OF IMPLEMENTATION: Onsite/Log Repair **ADMINISTRATIVE LEADTIME:** 0 months **PRODUCTION LEADTIME:** 0 months
Contract Dates: FY 2012 - FY 2013 - FY 2014 -
Delivery Dates: FY 2012 - FY 2013 - FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Global Air Traffic Mgmt- RW ADS-B Out [MOD 4] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E						39.0		34.9		25.4		32.0		38.7		152.7	
Procurement																		
Installation of Hardware																		
Kit Qty: ADS-B Out B-Kits									524	10.0	600	12.0	587	12.3	3334	66.4	5045	100.7
Kit Qty: ADS-B Out A-Kits									524	7.8	600	9.6	587	10.0	3334	42.8	5045	70.2
Installation Kits, Nonrecurring																		
Engineering Change Orders						1.1		2.1		1.1		0.8		1.5		3.2		9.8
Non-Recurring Engineering						29.7		24.6										54.3
Data						0.8		0.8		0.7		0.9		1.7		3.4		8.3
Training Equipment						2.1		2.2		0.9		1.1		3.3		6.1		15.7
Fielding						0.4		0.4		0.2		0.2		1.1		2.2		4.5
System Eng/Prog Mgt (SEPM)						2.2		2.2		2.2		2.2		3.5		6.4		18.7
System Test & Eval (ST&E)						0.2		0.2		0.2		0.3		1.1		0.6		2.6
Other- PM Admin						2.3		2.3		2.1		2.1		3.1		6.5		18.4
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits										210	0.7	210	1.1	104	0.5	524	2.3	
FY 2015 Equip -- Kits														600	2.3	600	2.3	
FY 2016 Equip -- Kits														587	1.9	587	1.9	
FY 2017 Equip -- Kits														1052	3.4	1052	3.4	
TC Equip- Kits														2282	7.5	2282	7.5	
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	210	0.7	210	1.1	4625	15.6	5045	17.4
Total Procurement Cost		0.0		0.0		38.8		34.8		25.2		29.9		38.7		153.2		320.6

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Global Air Traffic Mgmt- RW ARC-231 [MOD 5] OSIP

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

DESCRIPTION / JUSTIFICATION:

Global Air Traffic Management (GATM) is the military equivalent of the International Civil Aviation architecture known as Communications, Navigation, Surveillance and Air Traffic Management programs. The ARC-231 Radio provides the aircraft with the 8.33kHz channel spacing meeting the mandated requirement for aircraft in Europe.

FY12 Base procurement dollars in the amount of \$16.694 million supports the procurement and installation of ARC-231 A and B-Kits onto the HH/UH-60 A/L platforms.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Integration of the ARC-231 kHz channel spacing for the HH/UH-60 A/L will be complete in FY10.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	100	34	33	33	33	47	47	46	46	13	13	13	13	12	12	12	11	12	12	12	11
Outputs	30	70	34	33	33	33	47	47	46	46	13	13	13	13	12	12	12	11	12	12	12

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs					11	11												587
Outputs	11					11	11											587

METHOD OF IMPLEMENTATION: Onsite/Log Repair **ADMINISTRATIVE LEADTIME:** 2 months **PRODUCTION LEADTIME:** 3 months
Contract Dates: FY 2012 - Dec 11 FY 2013 - Dec 12 FY 2014 - Dec 13
Delivery Dates: FY 2012 - Feb 12 FY 2013 - Feb 13 FY 2014 - Feb 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Global Air Traffic Mgmt- RW ARC-231 [MOD 5] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
	RDT&E		44.5		35.8		16.7		10.6		10.1		0.3		4.4				
Procurement																			
Installation of Hardware																			
Kit Qty- ARC-231 B-Kit	233	27.7	186	22.4	52	6.3	47	5.7	47	5.7			22	2.7				587	70.5
Kit Qty- ARC-231 A-Kit	233	9.7	186	9.3	52	2.6	47	2.5	47	2.5			22	1.7				587	28.3
ARC-231 B-Kit Installs NRE (A-Kit)		3.5																	3.5
 Other																			
FY 2010 & Prior Equip -- Kits	100	5.6	133	4.1														233	9.7
FY 2011 -- Kits					186	7.8												186	7.8
FY 2012 Equip -- Kits							52	2.4										52	2.4
FY 2013 Equip -- Kits									47	1.9								47	1.9
FY 2014 Equip -- Kits											47	2.3						47	2.3
FY 2015 Equip -- Kits																			
FY 2016 Equip -- Kits															22	0.9		22	0.9
FY 2017 Equip -- Kits																			
TC Equip- Kits																			
Total Installment	100	5.6	133	4.1	186	7.8	52	2.4	47	1.9	47	2.3	0	0.0	22	0.9		587	25.0
Total Procurement Cost		46.5		35.8		16.7		10.6		10.1		2.3		4.4		0.9			127.3

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: Global Air Traffic Mgmt- RW Transision Doors [MOD 6] OSIP

MODELS OF SYSTEM AFFECTED: UH-60 A/L

DESCRIPTION / JUSTIFICATION:

Global Air Traffic Management (GATM) is the military equivalent of the International Civil Aviation architecture known as Communications, Navigation, Surveillance and Air Traffic Management programs. The procurement and installation of the ARC-231 maintenance transition doors on the UH-60 A/L platform facilitates easier access to the equipment and brings about a reduction in maintenance time and returning the aircraft to full mission capable status sooner.

FY12 Base procurement dollars in the amount of \$2.524 million supports the procurement and installation of ARC-231 maintenance transition doors onto the UH-60 A/L platforms.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Integration of the transition doors completed in FY10. Installations of the transition doors started in FY10 and continues in FY12-FY17.

Installation Schedule

	Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs	100	34	33	33	33	47	47	46	46	10	10	9	9	12	12	12	11	2	2	2	2
Outputs	30	70	34	33	33	33	47	47	46	46	10	10	9	9	12	12	12	11	2	2	2

	FY 2016				FY 2017				FY 2018				FY 2019				To Complete	Totals
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Inputs	10	10	10	9	11	11												573
Outputs	2	10	10	10	9	11	11											573

METHOD OF IMPLEMENTATION: Onsite/Log Repair **ADMINISTRATIVE LEADTIME:** 2 months **PRODUCTION LEADTIME:** 3 months
Contract Dates: FY 2012 - Dec 11 FY 2013 - Dec 12 FY 2014 - Dec 13
Delivery Dates: FY 2012 - Feb 12 FY 2013 - Feb 13 FY 2014 - Feb 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): Global Air Traffic Mgmt- RW Transition Doors [MOD 6] OSIP

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	RDT&E		14.3		14.4		12.5		4.8		5.6		0.5		3.9		1.5	
Procurement																		
Installation of Hardware																		
Transition Doors, Procurement	233	6.9	186	8.2	38	1.9	47	2.4	47	2.5			22	1.2			573	23.1
Installation Kits, Nonrecurring																		
Equipment, Nonrecurring		5.0																5.0
Engineering Change Orders																		
Data																		
Training Equipment																		
Support Equipment																		
Other																		
Interim Contractor Support																		
FY 2010 & Prior Equip -- Kits	100	7.4	133	6.2													233	13.6
FY 2011 -- Kits					186	10.6											186	10.6
FY 2012 Equip -- Kits							38	2.4									38	2.4
FY 2013 Equip -- Kits									47	3.1							47	3.1
FY 2014 Equip -- Kits											8	0.5	39	2.7			47	3.2
FY 2015 Equip -- Kits															22	1.5	22	1.5
FY 2016 Equip -- Kits																		
FY 2017 Equip -- Kits																		
TC Equip- Kits																		
Total Installment	100	7.4	133	6.2	186	10.6	38	2.4	47	3.1	8	0.5	39	2.7	22	1.5	573	34.4
Total Procurement Cost		19.3		14.4		12.5		4.8		5.6		0.5		3.9		1.5		62.5

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 2 / Modification of aircraft

P-1 Item Nomenclature
RQ-7 UAV MODS (A00018)

Program Elements for Code B Items: Code: Other Related Program Elements:
0305204A-RDT&E, 0305233A, BA0330 (OPA)

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost		649.9	602.8	126.2	94.6	220.8	253.5	189.7	300.9	232.2		2449.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1		649.9	602.8	126.2	94.6	220.8	253.5	189.7	300.9	232.2		2449.8
Initial Spares												
Total Proc Cost		649.9	602.8	126.2	94.6	220.8	253.5	189.7	300.9	232.2		2449.8
Flyaway U/C												
Weapon System Proc U/C												

Description:

The Tactical Unmanned Aerial System (TUAS) Shadow 200 provides the Army Brigade Commander with dedicated Reconnaissance, Surveillance and Target Acquisition (RSTA), Intelligence, Battle Damage Assessment (BDA) and Force Protection. The TUAS Shadow has logged over 575,000 flight hours since June FY 2001, most of which were flown in support of Operation Iraqi Freedom and Operation Enduring Freedom. The Shadow air vehicle meets the required operating range of 50 kilometers and remains on station for up to six hours or up to nine hours with the re-wing configuration. The full TUAS Shadow system consists of four air vehicles with payload, launcher, and ground control and support equipment including: power generation, communications equipment, automated recovery equipment, one system remote video terminals (OSRVT), vehicle mounted shelters, and High Mobility Multipurpose Wheeled Vehicles with trailer(s). Each system is equipped with one Maintenance Section Multifunctional (MSM) and is supported at the division level by a Mobile Maintenance Facility (MMF). The baseline fielded payload is electro-optic infrared (EO/IR), with a Laser Designator (LD) payload currently being retrofit. The Army has procured 102 systems through FY2009. Funding for FY10 and subsequent years procures system modifications including the Congressionally mandated Tactical Common Data Link (TCDL), Payloads upgrades, System Preplanned Product Improvement (P3I) and One System Remote Video Terminal Upgrades.

TCDL upgrades are presented in the TCDL P3a Form. System upgrades not included under TCDL or Payloads are in the P3I P3a Form. Upgrades are generally categorized as Air Vehicle, Ground Control Equipment, and Support Equipment. Engineering Services is also included under this category.

The payload(s) carried by the Shadow UAS provides a substantial part of its capability. The first payload upgrade is the previously mentioned Laser Designator (LD) payload (already under way). Development efforts will bring upgraded capabilities through additional payloads to include: a multi-band communications relay; synthetic aperture radar (SAR); signals intelligence (SIGINT); and improved EO/IR/LD. Procurement and fielding of these payloads will use an incremental approach to provide the capability as rapidly as possible.

Justification:

FY2012 Base funding of \$126.239 million supports retrofit of 8 Shadow systems with TCDL (including associated spares), 400 OSRVT modification kits, and Program Management, Engineering and Logistic Support.

FY2012 OCO funding of \$94.600 million supports procurement of 20 TCDL-configured aircraft to replace combat losses in OND/OEF, and 6 VADER Payloads.

All COMPO 1 Active

Exhibit P-40M, Budget Item Justification Sheet							Date: February 2011				
Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 2 / Modification of aircraft				P-1 Item Nomenclature RQ-7 UAV MODS (A00018)							
Appropriation / Budget Activity / Serial No:				P-1 Item Nomenclature							
Program Elements for Code B Items:						Code:	Other Related Program Elements: 0305204A-RDT&E, 0305233A, BA0330 (OPA)				
Description		Fiscal Years									
OSIP No.	Classification	2010 & PR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	TC	Total	
SHADOW TACTICAL COMMON DATA LINK (TCDL)											
0-00-00-0000		345.6	497.5	101.9	219.7	67.3	5.4	0.9	0.0	1238.3	
SHADOW SYSTEM P3I											
0-00-00-0000		0.0	0.0	27.4	20.1	48.7	160.5	105.0	0.0	361.7	
SHADOW PAYLOAD UPGRADES/MODIFICATIONS											
0-00-00-0000		66.8	65.3	79.8	2.0	61.7	116.8	107.8	0.0	500.2	
ENCRYPTION AND OSRVT MODIFICATIONS											
0-00-00-0000		237.5	40.0	11.7	11.7	11.9	18.2	18.5	0.0	349.5	
Totals		649.9	602.8	220.8	253.5	189.6	300.9	232.2	0.0	2449.7	

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: SHADOW TACTICAL COMMON DATA LINK (TCDL) [MOD 1] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: Shadow RQ-7B

DESCRIPTION / JUSTIFICATION:

This retrofit implements the Congressionally mandated Tactical Common Data Link (TCDL) and STANAG 4586 capability, meets the Shadow ORD requirement, and provides a secure data link. This effort applies TCDL to all 102 of the Shadow systems already procured. In addition to the data link, implementation of TCDL includes extended wings for the Shadow air vehicles to accommodate the added weight of the TCDL data link, and procurement of the Universal Ground Control Station (UGCS) and Universal Ground Data Terminal, which are required for interoperability with ER/MP. Government Furnished Equipment (GFE) and TCDL spares required for the Maintenance Section Multifunctional and Mobile Maintenance Facility are also included.

JUSTIFICATION:

FY12 Base funding of \$75.867 million supports retrofit of 8 Shadow systems with TCDL, and Program Management, Engineering and Logistics support. Initial spares to support TCDL are included in retrofit cost. Installation costs are included in the kit cost because the modification is done at the prime contractor's facility on a fixed price basis contracted at the time of kit procurement.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

3Q FY 2011 - Delivery of the first Shadow system with TCDL.

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4			
Inputs														
Outputs														

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

7 months

PRODUCTION LEADTIME:

15 months

Contract Dates: FY 2012 - May 12

FY 2013 - May 13

FY 2014 - May 14

Delivery Dates: FY 2012 - Aug 13

FY 2013 - Aug 14

FY 2014 - Aug 15

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): SHADOW TACTICAL COMMON DATA LINK (TCDL) [MOD 1] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
TCDL System Installation of Hardware																		
TCDL System Retrofit Kits	21	262.8	46	377.3	8	70.5	25	167.2	5	45.8							105	923.6
UGCS Only System Retrofit	13	35.7	20	55.9													33	91.6
Launchers			42	14.7													42	14.7
GFE		16.0		13.2		5.0		15.9		3.2								53.3
Training Equipment		5.8		11.2		1.7		5.5		1.1								25.3
Training		8.1		6.9		15.3		14.3		9.3		5.0		0.9				59.8
Program Management		7.8		8.3		4.8		7.7		4.2		0.2						33.0
Engineering		3.1		3.3		1.5		3.0		1.2		0.1						12.2
Logistics		6.3		6.7		3.1		6.1		2.5		0.1						24.8
FY 2010 Installation																		
FY 2011 Installation																		
FY 2012 Installation																		
FY 2013 Installation																		
FY 2014 Installation																		
FY 2015 Installation																		
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total Procurement Cost		345.6		497.5		101.9		219.7		67.3		5.4		0.9		0.0		1238.3

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: SHADOW SYSTEM P3I [MOD 2] 0-00-00-0000

MODELS OF SYSTEM AFFECTED:

DESCRIPTION / JUSTIFICATION:

This Modification includes System upgrades not included under TCDL or Payloads. Upgrades are generally categorized as Air Vehicle, Ground Control Equipment, and Support Equipment. Engineering Services is also included under this category. Air Vehicle upgrades includes gear reduction drive system, a new mission computer, triple redundant avionics, and a larger fuselage. Ground Control Equipment includes the Ground Based Sense and Avoid equipment which will help Shadow fly in the national air space. Support Equipment includes Maintainer and trainer training devices and spares required in the Mobile Maintenance Facility (MMF) for upgrades.

JUSTIFICATION:

FY2012 Base funding of \$2.400 million supports Program Management, Engineering and Logistics support.
 FY2012 OCO funding of \$25.000 million supports procurement of 20 aircraft to replace combat losses.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	1	2	3	1	2	3		
Inputs														
Outputs														

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

0 months

PRODUCTION LEADTIME: 0 months

Contract Dates:

FY 2012 -

FY 2013 -

FY 2014 -

Delivery Dates:

FY 2012 -

FY 2013 -

FY 2014 -

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): SHADOW SYSTEM P3I [MOD 2] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Installation of Hardware																	
Attrition Air Vehicles					20	25.0			8	10.3	22	28.9	8	10.7			58	74.9
Air Vehicle Mods								8.4		15.7		9.8		23.6				57.5
Ground Control Equipment								10.1		6.3		20.9		26.5				63.8
Training Equipment									11.2		63.2		33.6					108.0
Engineering Services												27.0						27.0
GFE																		
Training																		
Program Management						1.1		0.7		2.4		4.9		5.1				14.2
Engineering						0.4		0.3		0.9		1.9		1.8				5.3
Logistics						0.9		0.6		1.9		3.9		3.7				11.0
FY 2010 & Prior Equip -- Kits																		
FY 2011 -- Kits																		
FY 2012 Equip -- Kits																		
FY 2013 Equip -- Kits																		
FY 2014 Equip -- Kits																		
FY 2015 Equip -- Kits																		
FY 2016 Equip -- Kits																		
FY 2017 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	0.0	0	0.0	0	0.0
Total Procurement Cost		0.0		0.0		27.4		20.1		48.7		160.5		105.0		0.0		361.7

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: SHADOW PAYLOAD UPGRADES/MODIFICATIONS [MOD 3] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: Shadow RQ-7B, VADER Payload

DESCRIPTION / JUSTIFICATION:

The Shadow payload provides a substantial part of its capability. The initial payload was an Electro Optical/Infrared (EO/IR) payload, which is currently being retrofit to add Laser Designator (LD) capability. Development efforts will also bring upgraded capabilities to include: a multi-band communications relay; synthetic aperture radar (SAR); signals intelligence (SIGINT); and upgraded EO/IR/LD payloads. All of these capabilities will be a modular design, capable of installation at unit level. Procurement and fielding of these payloads will be through an incremental acquisition approach.

The LD payload is currently being fielded in OND/OEF. The Shadow LD retrofit effort procures one payload for every two Shadow air vehicles. Each retrofit kit is comprised of two LD payloads and one boresight tool.

In response to an operational need, the comms relay package will be upgraded to provide multi-band frequency support. A comms relay kit will be procured for each air vehicle.

The synthetic aperture radar (SAR) ground moving target indicator provides increased situational awareness by providing high resolution imagery to the ground control station during periods of adverse weather and/or through battlefield obscurants from survivable altitudes. The payload will also be capable of auto search and auto track. One SAR payload will be procured for every two air vehicles.

The SIGINT payload will detect, intercept, identify, and accurately locate signals of interest. The payload will be a dual mode Communications Intelligence and Electronic Intelligence sensor. One SIGINT payload will be procured for every two air vehicles.

FY2012 Base funding of \$10.199 million supports new equipment training for LD payload retrofit kits, Program Management, Engineering, and Logistics support.

FY2012 OCO funding of \$69.600 million procures 6 VADER payloads.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Fielding of LD payloads began in FY10, specifically: Shadow with LD acceptance (1Q FY10); first fielding of LD to a deploying unit (Mar 2010); and LD Limited User Test (completed Jul 2010).

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

	FY 2016				FY 2017				FY 2018				FY 2019				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:

6 months

PRODUCTION LEADTIME:

11 months

Contract Dates: FY 2012 - Mar 12

FY 2013 - Mar 13

FY 2014 - Mar 14

Delivery Dates: FY 2012 - Feb 13

FY 2013 - Feb 14

FY 2014 - Feb 15

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): SHADOW PAYLOAD UPGRADES/MODIFICATIONS [MOD 3] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
Installation of Hardware																		
Laser Designator	54	60.9	52	59.6													106	120.5
Multi-band Comm Relay											182	13.1	182	13.3			364	26.4
SAR									104	55.1	98	52.8					202	107.9
SIGINT											104	37.3	98	35.8			202	73.1
EO/IR/LD Upgrade													60	32.9			60	32.9
VADER Payloads					6	69.6											6	69.6
Training		2.6		3.1		3.2		1.8				5.8		15.3				31.8
Program Management		1.5		1.2		3.2		0.1		3.0		3.5		4.8				17.3
Engineering		0.6		0.5		1.3				1.2		1.4		1.9				6.9
Logistics		1.2		0.9		2.5		0.1		2.4		2.9		3.8				13.8
FY 2009 & Prior Equip -- Kits																		
FY 2010 -- Kits																		
FY 2011 Equip -- Kits																		
FY 2012 Equip -- Kits																		
FY 2014 Installation																		
FY 2015 Installation																		
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total Procurement Cost		66.8		65.3		79.8		2.0		61.7		116.8		107.8		0.0		500.2

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE: ENCRYPTION AND OSRVT MODIFICATIONS [MOD 4] 0-00-00-0000

MODELS OF SYSTEM AFFECTED: Shadow

DESCRIPTION / JUSTIFICATION:

The current One System Remote Video Terminal (OSRVT) fielded in Shadow systems requires an upgrade to an Increment II OSRVT. The increment II OSRVT provides Soldiers enhanced situational awareness with Full Motion Time Video and Telemetry Data from multiple manned and unmanned platforms. The OSRVT Increment II consists of a receiver, toughbook computer, antenna, UHF Modem, Type 1 encryption, and an optional extended range antenna. Software supports decoding Telemetry Data from multiple UASs, links data onto Falcon View maps, provides for EO/IR payload control, and supports Off Target Calculations. The FY12 Base procurement dollars support the OSRVT Bi-directional communications modifications that enable Level Of Interoperability 3 operations, allowing control of the Unmanned Aircraft Systems (UAS) payload for optimum situational awareness. This Increment II upgrade allows for multiple configurations for integration into specific platforms and Soldier systems, aircraft, ground vehicles, and dismounted equipment. Capabilities include displays that support identifying/distinguishing people behavior/ technology, handheld displays for ground-mounted Soldiers, and interoperability with joint Reconnaissance Surveillance Target Acquisition systems.

FY2012 Base funding of \$11.700 million supports the procurement of 400 OSRVT systems in addition to PM, engineering, and logistics support. Modification is at the unit level and does not incur installation cost.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONE(S):

Installation Schedule

Pr Yr Totals	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Inputs																				
Outputs																				

1	FY 2016			FY 2017			FY 2018			FY 2019			To Complete	Totals
	2	3	4	1	2	3	4	1	2	3	4			
Inputs														
Outputs														

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:

4 months

PRODUCTION LEADTIME:

9 months

Contract Dates:

FY 2012 - Feb 12

FY 2013 - Feb 13

FY 2014 - Feb 14

Delivery Dates:

FY 2012 - Nov 12

FY 2013 - Nov 13

FY 2014 - Nov 14

INDIVIDUAL MODIFICATION

Date: February 2011

MODIFICATION TITLE (cont): ENCRYPTION AND OSRVT MODIFICATIONS [MOD 4] 0-00-00-0000

FINANCIAL PLAN: (\$ in Millions)

	FY 2010 and Prior		2011		2012		2013		2014		2015		2016		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
	Procurement																	
OSRVT Installation of Hardware																		
OSRVT Retrofit Kits	2357	175.8	580	37.1													2937	212.9
OSRVT BI Directional Modification Kit					400	10.2	400	10.2	400	10.4	650	16.1	650	16.4			2500	63.3
Army TIES Retrofit Kits	470	56.9															470	56.9
Program Management		4.8		2.9		0.6		0.6		0.6		0.9		0.9				11.3
Engineering						0.5		0.5		0.5		0.7		0.7				2.9
Logistics						0.4		0.4		0.4		0.5		0.5				2.2
FY 2010 Rover 6 Installations																		
FY 2011 Rover 6 Installations																		
FY 2012 Rover 6 Installation																		
Total Installment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total Procurement Cost		237.5		40.0		11.7		11.7		11.9		18.2		18.5		0.0		349.5

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	350.1	28.0	7.3									385.5
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	350.1	28.0	7.3									385.5
Initial Spares												
Total Proc Cost	350.1	28.0	7.3									385.5
Flyaway U/C												
Weapon System Proc U/C												

Description:

Provides for the procurement of spares to support initial fielding of end items.

All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	654.8	25.9	24.5	36.0		36.0	37.0	49.8	54.9	56.1	607.7	1546.6
Less PY Adv Proc	11.6											11.6
Plus CY Adv Proc	11.6											11.6
Net Proc P1	654.8	25.9	24.5	36.0		36.0	37.0	49.8	54.9	56.1	607.7	1546.6
Initial Spares												
Total Proc Cost	654.8	25.9	24.5	36.0		36.0	37.0	49.8	54.9	56.1	607.7	1546.6
Flyaway U/C												
Weapon System Proc U/C												

Description:
 The Aircraft Survivability Equipment (ASE) budget line includes ASE Laser Countermeasures (AZ3508), ASE Trainers (AZ3506), and ASE Radio Frequency Countermeasures (AZ3511).

Justification:
 All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis	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: February 2011
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ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
ASE Trainers		2045			2133			3837						3837		
ASE Laser CM		21331			22345			32156						32156		
Radio Frequency CM		2519														
Total:		25895			24478			35993						35993		

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature ASE Trainers (AZ3506)
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Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	358.0	2.0	2.1	3.8		3.8	4.8	4.9	4.7	5.0	30.6	416.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	358.0	2.0	2.1	3.8		3.8	4.8	4.9	4.7	5.0	30.6	416.0
Initial Spares												
Total Proc Cost	358.0	2.0	2.1	3.8		3.8	4.8	4.9	4.7	5.0	30.6	416.0
Flyaway U/C												
Weapon System Proc U/C												

P-40 Breakdown										
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016
Active	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	2045.0	0.0	3837.0	0.0	3837.0	4780.0	4866.0	4708.0	5043.0
National Guard	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	2045	0	3837	0	3837	4780	4866	4708	5043

Description:
The Aircraft Survivability Equipment Trainers are the Man-portable Aircraft Survivability Training (MAST) device and later the Full-scale Mobile Aircraft Survivability Equipment (ASE) Tactical Training System (F-MATTS). These systems simulate surface-to-air (SAM) weapons. The MAST & F-MATTS provides force-on-force training by stimulating the onboard Missile Warning Systems (MWS) such as the Common Missile Warning System (CMWS) and AN/APR-39 at the Maneuver Combat Training Centers (MCTC) and home stations. The aircraft training against the MAST & F-MATTS include the Apache, Chinook, Kiowa Warrior, Blackhawk, and Fixed Wing platforms.

Justification:
FY12 Base Procurement dollars in the amount of \$3.837 million procures man portable CMWS stimulators for aviation MCTCs and home stations in support of the U.S. Army Aviation Center of Excellence requirements.
All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities
 P-1 Item Nomenclature ASE Laser CM (AZ3508)

Program Elements for Code B Items: Code: Other Related Program Elements:
 SSN AA0720: PE/Project 0604270A/665

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	200.7	21.3	22.3	32.2		32.2	32.2	44.9	50.2	51.0	577.1	1032.0
Less PY Adv Proc	11.6											11.6
Plus CY Adv Proc	11.6											11.6
Net Proc P1	200.7	21.3	22.3	32.2		32.2	32.2	44.9	50.2	51.0	577.1	1032.0
Initial Spares												
Total Proc Cost	200.7	21.3	22.3	32.2		32.2	32.2	44.9	50.2	51.0	577.1	1032.0
Flyaway U/C												
Weapon System Proc U/C												

P-40 Breakdown

Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016
Active	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	21331.0	0.0	32156.0	0.0	32156.0	32220.0	44944.0	50164.0	51023.0
National Guard	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	21331	0	32156	0	32156	32220	44944	50164	51023

Description:

The AN/AVR-2B 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 maneuver to break the targeting. The system detects aircraft illumination by laser rangefinders, laser designators, and laser beam rider surface to air missiles. The system provides the aircrew visual and audio warnings according to threat lethality using 360 degree azimuth and 90 degree elevation field of view coverage.

Justification:

FY 2012 Base procurement dollars in the amount of \$32.2 million procures AN/AVR-2B A-Kits, B-Kits and installation for selected aircraft platforms in support of required operational capabilities. FY12 procurement dollars also will be used to start the interation effort of the CH-47 platform with the AN/AVR-2B.

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis	Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities		P-1 Line Item Nomenclature: ASE Laser CM (AZ3508)			Weapon System Type:			Date: February 2011		

ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
AN/AVR-2B Laser Warning																
Recurring Production																
Manufacturing																
Non Recurring Production A-Kit							6000							6000		
A-Kit Procurement		3808	165	23	1159	23	50	1119	44	25				1119	44	25
A-Kit Installation		7089			2655			2729						2729		
B-Kit Procurement (includes install)		6591	60	110	15341	124	124	17012	126	135				17012	126	135
Other Recurring Production																
Prime Contractor Program Mgt								1335						1335		
Systems Engineering/Program Mgt		1468			2667		2667	2138						2138		
Systems Test and Evaluation		1852						1300						1300		
Training		75			75			75						75		
Data																
Support Equipment																
Fielding		448			448			448						448		
Modification Efforts																
Total:		21331			22345			32156						32156		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 4/ Support equipment and facilities		Weapon System Type:		P-1 Line Item Nomenclature: ASE Laser 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 \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
B-Kit Procurement (includes install)											
FY 2010	Goodrich Danbury, CT		C / FFP	CECOM, Ft. Monmouth NJ	Mar 10	Dec 10	60	110			
FY 2011	Goodrich Danbury, CT		C / FFP	CECOM, Ft. Monmouth NJ	Jan 11	Oct 11	124	124			
FY 2012	Goodrich Danbury, CT		C / FFP	CECOM, Ft. Monmouth, NJ	Jan 12	Oct 12	126	135			

REMARKS: The increase in unit price for the B-kits in FY12 reflects the beginning of a procurement mix of both 4 and 6 sensor B-Kits for installation on different aircraft platforms.

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature Radio Frequency CM (AZ3511)
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Program Elements for Code B Items:			Code:	Other Related Program Elements: 0604270A.665 A/C Surv Equip Dev								
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	96.1	2.5										98.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	96.1	2.5										98.6
Initial Spares												
Total Proc Cost	96.1	2.5										98.6
Flyaway U/C												
Weapon System Proc U/C												

Description:
The objective of the Aircraft Survivability Equipment (ASE) project is to improve radio frequency (RF) ASE for Army aviation. Phase 1 upgrades the Processor Line Replaceable Unit (LRU) of the AN/APR-39A(V)1 Radar Signal Detecting Set through modernization and reduced parts count. Along with improved maintainability and reliability, performance will be enhanced via increased processing speed and expanded memory. These improvements will result in faster response time, better dense environment capability and improved parameter measurement. Phase 1 serves to make the currently fielded system viable until affordable improved RF ASE capability can be pursued in Phases 2 and 3. Phase 2 initiates an improved digital Radar Warning Receiver (RWR) and Phase 3 adds active Electronic Countermeasures (ECM) for selected aircraft.

Justification:
AZ3511 has no FY12 Base Procurement dollars
All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature SURVIVABILITY CM (AZ3507)
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Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	2582.4	285.1	372.2									3239.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	2582.4	285.1	372.2									3239.7
Initial Spares												
Total Proc Cost	2582.4	285.1	372.2									3239.7
Flyaway U/C												
Weapon System Proc U/C												

Description:
 ATIRCM/CMWS Program funding is reflected on both SSN AZ3507 (through FY11) and SSN AZ3517 (FY12 and beyond). CIRCM subprogram funding under SSN AZ3537 is also included in this funding line.

The US Army operational requirements concept for Infrared (IR) countermeasure systems is known as the Suite of Integrated Infrared Countermeasures (SIIRCM). It is an integrated warning and countermeasure system to enhance aircraft survivability against IR guided threat missile systems. The core element of the SIIRCM concept is the Advanced Threat Infrared Countermeasure/Common Missile Warning System (ATIRCM/CMWS) Program. The ATIRCM/CMWS, a subsystem to a host aircraft, is an integrated ultraviolet (UV) missile warning system and an IR Laser Jamming and Improved Countermeasure Dispenser (ICMD).

The ATIRCM/CMWS program was restructured per an Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&L)) Acquisition Decision Memorandum (ADM) dated April 15, 2009. USD (AT&L) designated the ATIRCM/CMWS program as an Acquisition Category (ACAT) 1D special interest program, and directed the establishment of the CMWS, ATIRCM QRC and Common Infrared Countermeasure (CIRCM) subprograms. On September 3, 2010, the Acting DAE signed an ADM approving the reinstatement of MS C for CMWS and redesignating the ATIRCM QRC and CMWS subprograms as ACAT 1C. OSD also approved new baselines for each subprogram.

The CMWS subprogram is a UV missile warning system that cues both flare and laser countermeasures to defeat incoming infrared missiles. CMWS System is mission essential for aircraft operating in Operation Enduring Freedom/Operation New Dawn (OEF and OND). The B-kit consists of the components which perform the missile detection and identification, false alarm rejection, hostile missile declaration, and countermeasure employment functions of the system. The CMWS Electronic Control Unit (ECU) receives UV missile detection data from Electro-optic Missile Sensors (EOMS) and sends a missile alert signal to alert crewmen via on-board avionics, and ATIRCM QRC Jam Head Control Unit. Tier 1 threat missiles detected and tracked by the CMWS are subsequently defeated by a combination of missile seeker countermeasures, including decoy flares and ATIRCM IR Laser Jamming (CH-47 platform). The CMWS Generation 3 (Gen 3) Electronics Control Unit (ECU) will meet Tier 1 requirements while retaining a low false alarm rate. The Gen 3 ECU is required to obtain a Full Material Release for CMWS and ensure protection against emerging IR guided missile threats.

The ATIRCM Quick Reaction Capability (QRC) subprogram is an ATIRCM program transition in response to Operational Needs Statement (ONS) Number 08-5661 dated June 10, 2008. This ONS outlines the urgent requirement to equip CH-47 helicopters being used in SWA in support of OEF/OND with an improved IRCM capability to counter threats from advanced Man Portable Air Defense Systems (MANPADS). To address this requirement, an ATIRCM QRC for seventy (70) CH-47 helicopters was authorized by an Acquisition Decision Memorandum (ADM) signed September 15, 2008 by the Army Acquisition Executive (AAE). The DAE signed an ADM on April 15, 2009 that increased this urgent requirement to equip a total of eighty-three (83) CH-47 helicopters.

Exhibit P-40, Budget Item Justification Sheet	Date:
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February 2011

Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature SURVIVABILITY CM (AZ3507)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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The CIRCM (next generation ATIRCM) subprogram is an infrared countermeasure system that interfaces with a Missile Warning System (MWS) to provide near spherical coverage of the host platform in order to defeat all IR threats. In an ADM dated July 19, 2010, the Defense Acquisition Executive (DAE) directed that the SIIRCM ORD be the requirement baseline for the CIRCM, in lieu of an Initial Capabilities Document (ICD). The DAE directed that CIRCM provide the sole acquisition of future laser based infrared countermeasure systems for all rotary-wing, tilt-rotor, and small fixed wing aircraft across the Department of Defense. The CIRCM subprogram is projected to reach Milestone A in Fiscal Year 2011. The A-kit for CMWS, ATIRCM QRC, and CIRCM includes mounting hardware, wiring harnesses, cables, and other components necessary to install and interface the mission kit on host aircraft. The A-kit ensures the mission kit is functionally and physically operational with a specific host aircraft type.

The Hostile Fire Detection System (HFDS) provides small arms fire detection, orientation, type and real time cueing to all aircrew members enabling avoidance and/or response.

The Hostile Fire Quick Reaction Capability (HF QRC) is in response to Operational Needs Statement (ONS) Number 09-0836 dated May 09, 2009. This ONS outlines the urgent requirement for a ballistic threat detection system for Army aircraft. To address this requirement the Army Resource and Requirements Board (AR2B) and War Production Board (WPB) approved a Common Missile Warning System (CMWS) based solution. This capability is scheduled for fielding in Fiscal Year 2012.

Justification:

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities					P-1 Line Item Nomenclature: SURVIVABILITY CM (AZ3507)			Weapon System Type:			Date: February 2011		
ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
CMWS SUBPROGRAM																
Nonrecurring Production		10090			500											
CMWS A-kit Procurement		10410	61	171	18710	122	153									
CMWS A-kit Installation		27040			14330											
CMWS B-kit Production																
Government Furnished Equipment (GFE)		860														
Other Recurring Production (Software)		46080			43230											
Systems Engineering/Program Management		12830			21410											
Systems Test and Evaluation		22590			9170											
Training		14900														
Data		90			70											
Support Equipment		1380														
Fielding		13100			1310											
CMWS Gen 3 ECU Hardware		14090	60	235	35710	240	149									
Other Modifications		11990			10550											
Other Procurement					19232											
CMWS OCO Supplemental																
HFI QRCIR Suppressor Kits					123990											
HFI QRC					50000											
Systems Engineering/Program Management		39														
Non Recurring Production		5161														
Systems Test Evaluation		6093														
Training		7638														
Other Procurement					24000											
ATIRCM QRC SUBPROGRAM																
ATIRCM QRC OCO Supplemental																
Nonrecurring Production																
ATIRCM QRC A-kit Procurement		32582	138	236												
ATIRCM QRC A-kit Installation		2506														
ATIRCM QRC B-kit Production																
Other Recurring Production (Software)		13420														
Engineering Changes																
System Engineering/Program Management		7632														
System Test and Evaluation		12650														

Exhibit P-5, Weapon ACFT Cost Analysis	Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Line Item Nomenclature: SURVIVABILITY CM (AZ3507)	Weapon System Type:	Date: February 2011
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ACFT Cost Elements	ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Training		10302														
Data																
Support Equipment		4														
Fielding		1664														
Total:		285141		1101	372212		1028									

Exhibit P-5a, Budget Procurement History and Planning	Date: February 2011
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Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 4/ Support equipment and facilities	Weapon System Type:	P-1 Line Item Nomenclature: SURVIVABILITY CM (AZ3507)
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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
CMWS SUBPROGRAM										
CMWS A-kit Procurement										
FY 2010	Various	SS / FFP	CECOM, APG	Jan 11	Jun 11	61	171	Yes		
FY 2011	Various	SS / FFP	CECOM, APG	Jan 11	Jun 11	122	153	Yes		
CMWS Gen 3 ECU Hardware										
FY 2010	BAE Systems Nashua, NH	SS / FFP	CECOM, APG	May 10	Jan 11	60	235	Yes		
FY 2011	BAE Systems Nashua, NH	SS / FFP	CECOM, APG	Mar 11	Nov 11	240	149	Yes		
ATIRCM QRC A-kit Procurement										
FY 2010	BAE Systems Nashua, NH	SS / FFP	CECOM, APG	Jun 10	Nov 10	80	236	Yes		
FY 2010	BAE Systems Nashua, NH	SS / FFP	CECOM, APG	Aug 11	Feb 12	58	236	Yes		

REMARKS:

FY 12 / 13 BUDGET PRODUCTION SCHEDULE

P-1 ITEM NOMENCLATURE
SURVIVABILITY CM (AZ3507)

Date:
February 2011

COST ELEMENTS						Fiscal Year 12												Fiscal Year 13												Later
MFR	FY	SERV	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12												Calendar Year 13												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
CMWS A-kit Procurement																														
1	FY 10	A	61	20	41	5	5	5	5	5	5	5	6														0			
1	FY 11	A	122	40	82	10	10	10	10	10	10	10	12														0			
CMWS Gen 3 ECU Hardware																														
2	FY 10	A	60	45	15	5	5	5																			0			
2	FY 11	A	240	0	240		20	20	20	20	20	20	20	20	20	20	20										0			
ATIRCM QRC A-kit Procurement																														
3	FY 10	A	80	80																							0			
3	FY 10	A	58	0	58				20	20	18																0			
Total																														
				436	20	40	40	35	55	55	53	38	20	20	20	20	20													
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct			
1	Various, Various	18	300	800		1	3	3	12	15	
2	BAE Systems, Nashua, NH	24	600	1000		2	6	6	6	12	
3	BAE Systems, Nashua, NH	24	240	480		3	6	6	6	12	
							6	6	12	18	
							3	3	12	15	

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No:
Aircraft Procurement, Army / 4 / Support equipment and facilities

P-1 Item Nomenclature
CMWS (AZ3517)

Program Elements for Code B Items: Code: Other Related Program Elements:

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost				162.8		162.8	151.1	151.4	113.7	178.1		757.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1				162.8		162.8	151.1	151.4	113.7	178.1		757.1
Initial Spares												
Total Proc Cost				162.8		162.8	151.1	151.4	113.7	178.1		757.1
Flyaway U/C												
Weapon System Proc U/C												

Description:

The US Army operational requirements concept for Infrared (IR) countermeasure systems is known as the Suite of Integrated Infrared Countermeasures (SIIRCM). It is an integrated warning and countermeasure system to enhance aircraft survivability against IR guided threat missile systems. The core element of the SIIRCM concept is the Advanced Threat Infrared Countermeasure/Common Missile Warning System (ATIRCM/CMWS) Program. The ATIRCM/CMWS, a subsystem to a host aircraft, is an integrated ultraviolet (UV) missile warning system and an IR Laser Jamming and Improved Countermeasure Dispenser (ICMD).

The ATIRCM/CMWS program was restructured per an Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&L)) Acquisition Decision Memorandum (ADM) dated April 15, 2009. USD (AT&L) designated the ATIRCM/CMWS program as an Acquisition Category (ACAT) 1D special interest program, and directed the establishment of the CMWS, ATIRCM QRC and Common Infrared Countermeasure (CIRCM) subprograms. On September 3, 2010, USD(AT&L) signed an ADM approving the reinstatement of MS C for CMWS and redesignating the ATIRCM QRC and CMWS subprograms as ACAT 1C. Mr. Kendall also approved new baselines for each subprogram.

The CMWS subprogram is a UV missile warning system that cues both flare and laser countermeasures to defeat incoming infrared missiles. CMWS System is mission essential for aircraft operating in Operation Enduring Freedom/ Operation New Dawn (OEF and OND). The B-kit consists of the components which perform the missile detection and identification, false alarm rejection, hostile missile declaration, and countermeasure employment functions of the system. The CMWS Electronic Control Unit (ECU) receives UV missile detection data from Electro-optic Missile Sensors (EOMS) and sends a missile alert signal to alert crewmen via on-board avionics, and ATIRCM QRC Jam Head Control Unit. Tier 1 threat missiles detected and tracked by the CMWS are subsequently defeated by a combination of missile seeker countermeasures, including decoy flares and ATIRCM IR Laser Jamming (CH-47 platform). The CMWS Generation 3 (Gen 3) Electronics Control Unit (ECU) will meet Tier 1 requirements while retaining a low false alarm rate. The Gen 3 ECU is required to obtain a Full Material Release for CMWS and ensure protection against emerging IR guided missile threats.

The ATIRCM Quick Reaction Capability (QRC) subprogram is an ATIRCM program transition in response to Operational Needs Statement (ONS) Number 08-5661 dated June 10, 2008. This ONS outlines the urgent requirement to equip CH-47 helicopters being used in SWA in support of OEF/OND with an improved IRCM capability to counter threats from advanced Man Portable Air Defense Systems (MANPADS). To address this requirement, an ATIRCM QRC for seventy (70) CH-47 helicopters was authorized by an Acquisition Decision Memorandum (ADM) signed September 15, 2008 by the Army Acquisition Executive (AAE). The DAE signed an ADM on April 15, 2009 that increased this urgent requirement to equip a total of eighty-three (83) CH-47 helicopters.

The CIRCM (next generation ATIRCM) subprogram is an infrared countermeasure system that interfaces with a Missile Warning System (MWS) to provide near spherical coverage of the host platform in order to defeat all IR threats. In an ADM dated July 19, 2010, the Defense Acquisition Executive (DAE) directed that the SIIRCM ORD be the requirement baseline for the CIRCM, in

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature CMWS (AZ3517)
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Program Elements for Code B Items:	Code:	Other Related Program Elements:
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lieu of an Initial Capabilities Document (ICD). The DAE directed that CIRCМ provide the sole acquisition of future laser based infrared countermeasure systems for all rotary-wing, tilt-rotor, and small fixed wing aircraft across the Department of Defense. The CIRCМ subprogram is projected to reach Milestone A in Fiscal Year 2011. The A-kit for CMWS, ATIRCМ QRC, and CIRCМ includes mounting hardware, wiring harnesses, cables, and other components necessary to install and interface the mission kit on host aircraft. The A-kit ensures the mission kit is functionally and physically operational with a specific host aircraft type.

The Hostile Fire Detection System (HFDS) provides small arms fire detection, orientation, type and real time cueing to all aircrew members enabling avoidance and/or response.

The Hostile Fire Quick Reaction Capability (HF QRC) is in response to Operational Needs Statement (ONS) Number 09-0836 dated May 09, 2009. This ONS outlines the urgent requirement for a ballistic threat detection system for Army aircraft. To address this requirement the Army Resource and Requirements Board (AR2B) and War Production Board (WPB) approved a Common Missile Warning System (CMWS) based solution. This capability is scheduled for fielding in Fiscal Year 2012.

Justification:

Fiscal Year 2012 Base procurement dollars in the amount of \$162.811 million supports CMWS recurring production of the CMWS A-kits and associated installation and integration, and the Gen 3 Electronic Control Unit (ECU) effort. A-kit unit costs vary and are platform specific (fixed versus rotary wing).

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis	Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities		P-1 Line Item Nomenclature: CMWS (AZ3517)			Weapon System Type:			Date: February 2011		

ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
ATIRCM/CMWS PROGRAM																
CMWS Subprogram																
Non-recurring Production								500						500		
CMWS A-kit Procurement								35239	137	257				35239	137	257
CMWS A-kit Installation								23321						23321		
CMWS B-kits Production (includes Install Government Furnished Equipment (GFE))																
Other Recurring Production (Software)								18810						18810		
Engineering Changes																
Systems Engineering/Program Management								15162						15162		
Systems Test and Evaluation								7000						7000		
Training								4610						4610		
Data								70						70		
Support Equipment																
Fielding								2130						2130		
CMWS Gen 3 ECU Hardware								49837	360	138				49837	360	138
Other Modifications								6132						6132		
Other Procurement-CMWS																
Other Procurement-CIRCM																
Total:								162811						162811		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 4/ Support equipment and facilities		Weapon System Type:		P-1 Line Item Nomenclature: CMWS (AZ3517)						
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
CMWS A-kit Procurement										
FY 2012	Various Various	SS / CPFF	CECOM, APG	Dec 11	Jun 12	34	257	Yes		
FY 2012	Various Various	TBD	TBD	Dec 11	Jun 12	103	257	TBD		
CMWS Gen 3 ECU Hardware										
FY 2012	BAE Systems Nashua, NH	SS / FFP	CECOM, APG	Mar 12	Sep 12	360	138	Yes		

REMARKS:

FY 12 / 13 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE CMWS (AZ3517)										Date: February 2011															
COST ELEMENTS						Fiscal Year 12										Fiscal Year 13																			
MFR	FY	SERV	PROC QTY x1000	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12										Calendar Year 13										Later									
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP					
CMWS A-kit Procurement																																			
1	FY 12	A	137	0	137				A								11	11	11	11	11	11	12	12	12	12	12	12	10					0	
CMWS Gen 3 ECU Hardware																																			
2	FY 12	A	360	0	360					A							30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	0
Total					497												11	11	11	41	41	42	42	42	42	42	42	42	40	30	30	30			
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP						

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	Various, Various	18	300	800		1	Initial	3	3	12	15	
							Reorder	2	2	9	11	
2	BAE Systems, Nashua, NH	24	600	1000		2	Initial	6	6	6	12	
							Reorder	6	6	6	12	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	2925											2925
Gross Cost	485.9	4.9	4.9	4.8		4.8	4.8	4.8	4.8	4.9		519.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	485.9	4.9	4.9	4.8		4.8	4.8	4.8	4.8	4.9		519.8
Initial Spares												
Total Proc Cost	485.9	4.9	4.9	4.8		4.8	4.8	4.8	4.8	4.9		519.8
Flyaway U/C												
Weapon System Proc U/C				0.0		0.0	0.0	0.0	0.0	0.0		0.2

Description:
 Consists of a family of avionics support equipment. Current program consists of the Aviators' Night Vision Imaging System (ANVIS).

Justification:
 FY12 Base procurement dollars, in the amount of \$4.840 million, supports the procurement of 393 AN/AVS-6(V)3 systems for fielding to Active Units. The increased capability of the AN/AVS-6(V)3 yields enhanced mission performance and improved safety of flight, compared to what is now possible using previous AN/AVS-6 systems. The AN/AVS-6(V)3 enhances the survivability, lethality, and tactical mobility for aviators.

All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature ANVIS (K35601)
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Program Elements for Code B Items:			Code: A		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty	2925			393		393	377	361	345	345	Continuing	Continuing
Gross Cost	485.9	4.9	4.9	4.8		4.8	4.8	4.8	4.8	4.9	Continuing	Continuing
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	485.9	4.9	4.9	4.8		4.8	4.8	4.8	4.8	4.9	Continuing	Continuing
Initial Spares												
Total Proc Cost	485.9	4.9	4.9	4.8		4.8	4.8	4.8	4.8	4.9	Continuing	Continuing
Flyaway U/C												
Weapon System Proc U/C				0.0		0.0	0.0	0.0	0.0	0.0	Continuing	Continuing

Description:
The AN/AVS-6, Aviator's Night Vision Imaging System (ANVIS), supports the Army's objectives by permitting superior tactical mobility of rotary wing aircraft during darkness and low light conditions. The AN/AVS-6 also supports Fixed Wing Lift permitting loading/unloading and flight during darkness and low light conditions. The AN/AVS-6 is a binocular, helmet-mounted system for Aviation crew members. The AN/AVS-6(V)3 is a night vision goggle that significantly expands the input dynamic range to support operations in conditions that vary from below starlight illumination levels through strong urban lighting situations.

Justification:
FY12 Base procurement dollars, in the amount of \$4.840 million, supports the procurement of 393 AN/AVS-6(V)3 systems for fielding to Active Units. The increased capability of the AN/AVS-6(V)3 yields enhanced mission performance and improved safety of flight, compared to what is now possible using previous AN/AVS-6 systems. The AN/AVS-6(V)3 enhances the survivability, lethality, and tactical mobility for aviators.

All COMPO 1 Active

IAW Section 1815 of the FY08 NDAA this item is necessary for use by the Active components and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Exhibit P-5, Weapon ACFT Cost Analysis	Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities		P-1 Line Item Nomenclature: ANVIS (K35601)			Weapon System Type:			Date: February 2011		

ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
K35601 ANVIS/HUD																
ANVIS		4631	509	9.098	3785	329	11.505	3601	393	9.163				3601	393	9.163
Engineering Support		211			386			450						450		
Project Management Admin		76			443			448						448		
Engineering Change Orders					62			134						134		
Fielding					209			207						207		
Total:		4918			4885			4840						4840		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 4/ Support equipment and facilities		Weapon System Type:	P-1 Line Item Nomenclature: ANVIS (K35601)							
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
K35601 ANVIS/HUD										
FY 2010	ITT Corporation Roanoke	C / IDIQ	RDECOM	Jul 10	Jan 11	509	9.098	Yes		
FY 2011	TBS TBD	C / IDIQ	RDECOM	Jan 11	Sep 12	329	11.505	Yes		
FY 2012	TBS TBD	C / IDIQ	RDECOM	Jan 12	Dec 12	393	9.163	Yes		

REMARKS:

FY 12 / 13 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE ANVIS (K35601)										Date: February 2011								
COST ELEMENTS						Fiscal Year 12										Fiscal Year 13												
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12										Calendar Year 13										Later		
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL
K35601 ANVIS/HUD																												
1	FY 10	A	509	509																								0
2	FY 11	A	329	0	329										28	28	28	28	28	27	27	27	27	27	27	27	27	0
2	FY 12	A	393	0	393				A									32	32	32	32	32	32	32	32	32	32	73
Total					722										28	28	28	60	60	59	59	59	59	59	59	59	32	73
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	ITT Corporation, Roanoke	25	125	250	120	1	Initial	6	9	6	15	
							Reorder	6	9	6	15	
2	TBS, TBD	25	125	250	120	2	Initial	6	3	20	23	
							Reorder	6	3	11	14	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

FY 14 / 15 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE ANVIS (K35601)										Date: February 2011								
COST ELEMENTS					Fiscal Year 14										Fiscal Year 15										Later			
MFR	FY	SERV	PROC QTY Each	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 14										Calendar Year 15												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR		MAY	JUN	JUL
K35601 ANVIS/HUD																												
1	FY 10	A	509	509																								0
2	FY 11	A	329	329																								0
2	FY 12	A	393	320	73	25	24	24																				0
Total					73	25	24	24																				
					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

MFR	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
1	ITT Corporation, Roanoke	25	125	250	120	1	Initial	6	9	6	15	
							Reorder	6	9	6	15	
2	TBS, TBD	25	125	250	120	2	Initial	6	3	20	23	
							Reorder	6	3	11	14	
							Initial					
							Reorder					
							Initial					
							Reorder					
							Initial					
							Reorder					

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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:
63801/B32

	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	1181.2	116.6	141.8	176.2		176.2	117.4	105.0	104.1	215.5		2157.7
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	1181.2	116.6	141.8	176.2		176.2	117.4	105.0	104.1	215.5		2157.7
Initial Spares												
Total Proc Cost	1181.2	116.6	141.8	176.2		176.2	117.4	105.0	104.1	215.5		2157.7
Flyaway U/C												
Weapon System Proc U/C												

Description:

FY12 Base procurement dollars in the amount of \$176.212 million supports and provides various types of ground support equipment.

COMPO Break see pg 2.

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: 63801/B32, SSN AZ3510
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	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	619.1	116.6	141.8	176.2		176.2	117.4	105.0	104.1	215.5		1595.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	619.1	116.6	141.8	176.2		176.2	117.4	105.0	104.1	215.5		1595.6
Initial Spares												
Total Proc Cost	619.1	116.6	141.8	176.2		176.2	117.4	105.0	104.1	215.5		1595.6
Flyaway U/C												
Weapon System Proc U/C												

P-40 Breakdown											
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	
Active	Qty	0	0	0	0	0	0	0	0	0	0
	Gross Cost	116616.0	127947.0	176212.0	0.0	176212.0	117393.0	104975.0	104108.0	215454.0	
National Guard	Qty	0	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	13809.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0	0	0	0
	Gross Cost	116616	141756	176212	0	176212	117393	104975	104108	215454	

Description:
 Aviation Ground Support Equipment (AGSE) develops, acquires, fields, and sustains aviation equipment within cost, schedule, and performance parameters, allowing the Joint Warfighter to carry out peacetime and wartime missions. Systems managed by AGSE through its Life Cycle include Aviation Vibration Analyzer, Aviation Intermediate Maintenance Shop Set, Battle Damage Assessment and Repair Block II, Aviation Ground Power Unit, Generic Aircraft Nitrogen Generator, Standard Aircraft Towing System, Aviation Shop Equipment Contact Maintenance, Non-Destructive Test Equipment, Digital Aircraft Weighing Scales, Aviation - Sets, Kits, Outfits and Tools, (Aviation Unit Maintenance Shop Set, Aviation Foot Locker and Tool Kits), (support items of equipment Fuel Quantity Tester, Pitot Static Test Sets, Jacks, Rail Trailer, Swaging Tool Kits), Aviation Light Utility Mobile Maintenance Cart and Flexible Engine Diagnostic System. AGSE is critical to the operational readiness of Army Aviation Units. AGSE products provide the finest materiel and support solutions to Army Aviation.

Justification:
 FY12 Base procurement dollars in the amount of \$176.212 million supports and procures ground support equipment which supports the operational readiness of all Army aviation field units which are operating AH-64, UH-60, CH-47, OH-58D and other Army aircraft. AGSE also provides a means to correct safety-of-flight discrepancies which endanger both life and property. Various pieces

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature AVIATION GROUND SUPPORT EQUIPMENT (AZ3520)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: 63801/B32, SSN AZ3510
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of AGSE equipment are being procured in FY 2012. The Aviation Ground Power Units provides the capability of meeting Army helicopter servicing requirements into the next decade. The Aviation Ground Power Unit (AGPU) provides electrical, hydraulic and pneumatic power for aircraft servicing and maintenance. The Battle Damage Assessment Repair Block II provides damage assessment and rapid repair to aviation aircraft. The Standard Aircraft Towing System fills the need for a standard aircraft towing system that has the capability to reposition all U.S. Army rotary wing aircraft. Aviation - Sets, Kits, Outfits and Tools provides standardized tools, kits and outfits which meet transformation modularity, flexibility and mobility requirements for repair of rotary wing aircraft during combat, contingency and training operations. The Aviation Light Utility Mobile Maintenance Cart will enhance mission performance of current forces by reducing an intensive manpower and logistics burden imposed on Army Aviation Units. The Flexible Engine Diagnostic System is a Turboshaft Engine Test Stand to verify flight readiness/safety of engines removed from aircraft for maintenance. The Flexible Engine Diagnostic System supports the CH-47, OH-58, AH-64, and UH-60. The Shop Equipment Contact Maintenance will provide the combat maintainer a contact maintenance vehicle with containerized tools/spares/modules for repair capability on aircraft. Aviation Intermediate Maintenance (AVIM) Shop Set Complexes provide transportable aviation intermediate and limited depot level maintenance capability in force projection or contingency operations.

Exhibit P-5, Weapon ACFT Cost Analysis	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: February 2011
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ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Aviation Ground Power Unit (AGPU)					90376			77231						77231		
Aviation Ground Power Unit (AGPU) SLEP		39934			7574											
Avn Light Utility Mobile Maint (ALUMMC)								3287						3287		
Avn-Sets, Kits, Outfits, Tools (A-SKOT)		13083			20347			58408						58408		
Avn Intermediate Maint (AVIM) Shop Sets		35171						4950						4950		
Battle Damage Assess Repair (BDAR) II					5123			5046						5046		
Flexible Engine Diagnostics Sys (FEDS)		7974			10554			13914						13914		
Standard Aircraft Towing System (SATS)		17425			5462			5205						5205		
Shop Equipment Contact Maint (SECM)								6107						6107		
Unit Maint Aerial Recovery Kit (UMARK)																
Program Management Support		3029			2320			2064						2064		
Total:		116616			141756			176212						176212		

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature AIRCREW INTEGRATED SYSTEMS (AZ3110)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: RDTE 0603801(DB45), 0604801(DC45), 0603827(S51), 0604601(S61)
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	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	390.1	66.1	52.4	82.9		82.9	76.4	47.7	102.0	116.1		933.6
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	390.1	66.1	52.4	82.9		82.9	76.4	47.7	102.0	116.1		933.6
Initial Spares												
Total Proc Cost	390.1	66.1	52.4	82.9		82.9	76.4	47.7	102.0	116.1		933.6
Flyaway U/C												
Weapon System Proc U/C												

Description:

The Air Warrior (AW) system is a modular systems solution to aviation crewmember life support equipment, integrating survival and mission equipment into an aircrew ensemble that improves the combat effectiveness of the Army aircrew member. AW leverages joint-service technologies to increase situational awareness, enhance mobility to safely operate aircraft systems, reduce physiological stress and injuries, and provide survival gear in the event of a downed aircraft over land or water. Block 1 (from original ORD) components include integrated Aviation Clothing and Individual Equipment, a Microclimate Cooling System (MCS) that significantly reduces heat stress and injuries, the Aircrew Integrated Helmet System with laser eye protection, chemical-biological (CB) protection, tailored body armor, overwater survival gear, and survival, escape, and evasion tools. Air Warrior Increment III Capability Production Document (CPD) dated Aug 07, includes: Electronic Data Manager (EDM), a lightweight touch screen computer that provides mission planning, digital moving map w/tactical overlays, and interface to Blue Force Tracking capabilities in the form of a digital kneeboard; Aircraft Wireless Intercom System (AWIS) eliminates the mobility problems and snag hazards inherent to the current tethered cord systems; Portable Helicopter Oxygen Delivery System (PHODS) is a lightweight system worn by the crewmember that automatically delivers oxygen to the crew member to safely conduct high altitude missions; Survival Kit, Ready Access, Modular (SKRAM) is an individual crewmember supplemental survival equipment Go Bag with integrated on-the-go Hydration capability; and Helmet Hear Through system provides an external audio capability without the need to remove the flight helmet. The Personnel Recovery Support System (PRSS) program includes the modification, integration, procurement, and fielding of systems to provide a significantly enhanced ability to respond to occurrences of isolated, missing, detained or captured Soldiers. The Flat Panel Display (HUD) is an enhanced helmet-mounted Heads Up Display system that projects critical flight data symbology through night vision goggles for UH-60 Blackhawk and CH-47 Chinook pilots flying low level night missions to significantly increase their situational awareness (SA) and safety. The Air Soldier System (Air SS) will integrate and optimize aircrew survival equipment. The Air SS reduces bulk and weight, improves SA through advanced HUD and aural cueing, provides integrated portable power, fixed laser eye protection, wearable environmental control system, and improved ballistic and impact protection.

Justification:

FY2012 Base procurement dollars in the amount of \$83 million supports production and fielding of the Air Warrior Microclimate Cooling Garment, the Increment III Electronic Data Manager (EDM) for deploying units, and procurement of encrypted Aircraft Wireless Intercom System (AWIS), including A Kit and B Kit production and installations. These funds also procure first products developed under the Air Soldier System (Air SS) CDD. The Air SS addresses Air Warrior capability gaps identified during combat operations in Iraq and Afghanistan including the adverse effects of weight and bulk caused by a lack of functionally integrated aircrew member life support equipment; lack of situational awareness, especially in degraded visual environments; limited aft crewmember mobility in extreme heat environments; and the inability of aircrews to operate in extreme environmental and threat conditions in excess of 5.3 (up to the current goal of 11.0) hours. Air SS sub-increment 1a products to be procured in FY12 include optimized aircrew survival equipment and lightweight flexible body armor that will reduce bulk and weight; a Modular Aircrew Common Helmet with improved crash energy attenuation, laser eye protection to align with current laser threats, and a Wearable Environmental Control System with integrated portable power that increase crew member mobility and reduces airframe space, weight and power requirements. These funds also procure Personnel Recovery Support System (PRSS) platform interoperability hardware and software improvements.

Exhibit P-40, Budget Item Justification Sheet	Date:
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February 2011

Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature AIRCREW INTEGRATED SYSTEMS (AZ3110)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: RDTE 0603801(DB45), 0604801(DC45), 0603827(S51), 0604601(S61)
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All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis			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: February 2011		
ACFT Cost Elements			ID	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
			CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
				\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Hardware																		
-																		
Air Warrior Block 1																		
Air Warrior Block 1 Ensembles				5700	3000	1.9	1908	1004	1.9									
Air Warrior OEF Camouflage Pattern				4481	3250	1.4												
Air Warrior Microclimate Cooling Garment				276	920	0.3	150	500	0.3	750	2500	0.3				750	2500	0.3
Air Warrior Microclimate Cooling Units				14483	1880	7.7	4366	567	7.7									
-																		
Air Warrior Block 2/Increment III																		
Electronic Data Mgr (EDM)				4409	500	8.8	5289	601	8.8	8809	1001	8.8				8809	1001	8.8
AcfT Wireless Intercom Sys (AWIS)				2723	72	37.8	9331	246	37.9	19983	810	24.7				19983	810	24.7
Air Warrior Airframe Kits				7322	904	8.1	8579	1059	8.1	4516	1121	4.0				4516	1121	4.0
Airframe Kit Installs				6824			8595			6176						6176		
Survival Kit, Ready Access, Modular										2705	5410	0.5				2705	5410	0.5
Helmet Hear Through System										1085	3100	0.4				1085	3100	0.4
-																		
Air Soldier Equipment:																		
Improved Helmet										13212	2586	5.1				13212	2586	5.1
Wearable Environmental Control System										4423	632	7.0				4423	632	7.0
Air Soldier Airframe Kits										2502	472	5.3				2502	472	5.3
-																		
Personel Recovery Sup System (PRSS)																		
PRSS Platform Modifications										2400	6	400.0				2400	6	400.0
-																		
Total Hardware Costs				46218			38218			66561					66561			
Other Costs																		
Manuals				119			203			206						206		
New Equipment Training				218			211			1512						1512		
Initial Spares and Repair Parts				601			604			921						921		
Support Equipment				219			223			223						223		
Systems Test and Evaluation				811			814			1221						1221		
Total Other Costs				1968			2055			4083					4083			
Nonrecurring Costs																		
Nonrecurring Engineering				918			924			1224						1224		

Exhibit P-5, Weapon ACFT Cost Analysis	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: February 2011
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ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Interoperability Engineering		3990			4191			2895						2895		
Total Nonrecurring Costs		4908			5115			4119						4119		
Air Warrior ECP		611			614			617						617		
Systems Integration Engineering		717			725			744						744		
Project Management Admin		4067			4076			5126						5126		
Total ECP, Sys Int, & Admin Costs		5395			5415			6487						6487		
Support Costs																
Fielding		837			876			883						883		
Contract Logistics Support		727			744			750						750		
Total Support Costs		1564			1620			1633						1633		
Flat Panel Display		6000	300	20.0												
Total:		66053			52423			82883						82883		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 4/ Support equipment and facilities		Weapon System Type:	P-1 Line Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)							
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
Air Warrior Block 1 Ensembles										
FY 2010	Aerial Machine & Tool Corp Vesta, VA	C / FFP	Redstone Arsenal, AL	Mar 10	May 10	3000	1.9	Yes		Dec 07
FY 2011	CONAX St. Petersburg, FL	C / FFP	Aberdeen Proving Grd	Dec 10	Mar 11	1004	1.9	Yes		Nov 07
Air Warrior OEF Camouflage Pattern										
FY 2010	Science & Engr Svcs, Inc Huntsville, AL	C / FFP	Redstone Arsenal, AL	Sep 10	Apr 11	3250	1.4	Yes		Aug 10
Air Warrior Microclimate Cooling Garment										
FY 2010	Carleton Technologies, Inc. Orchard Park, NY	C / FFP	Redstone Arsenal, AL	Apr 10	Sep 10	920	0.3	Yes		Dec 08
FY 2011	Carleton Technologies, Inc. Orchard Park, NY	C / FFP	Redstone Arsenal, AL	Dec 10	May 11	500	0.3	Yes		
FY 2012	Carleton Technologies, Inc. Orchard Park, NY	C / FFP	Redstone Arsenal, AL	Apr 12	Sep 12	2500	0.3	Yes		
Air Warrior Microclimate Cooling Units										
FY 2010	Carleton Technologies, Inc. Orchard Park, NY	C / FFP	Redstone Arsenal, AL	Dec 09	Mar 10	1880	7.7	Yes		Dec 08
FY 2011	Carleton Technologies, Inc. Orchard Park, NY	C / FFP	Redstone Arsenal, AL	Dec 10	Mar 11	567	7.7	Yes		
Electronic Data Mgr (EDM)										
FY 2010	Raytheon Indianapolis, IN	C / FFP	Redstone Arsenal, AL	Dec 09	Apr 10	500	8.8	Yes		Jan 08
FY 2011	Raytheon Indianapolis, IN	C / FFP	Redstone Arsenal, AL	Dec 10	Apr 11	601	8.8	Yes		
FY 2012	Raytheon Indianapolis, IN	C / FFP	Redstone Arsenal, AL	Dec 11	Apr 12	1001	8.8	Yes		
Acft Wireless Intercom Sys (AWIS)										
FY 2010	Telephonics Farmingdale, NY	SS / FFP	Redstone Arsenal, AL	Jul 10	Oct 10	72	37.8	Yes		Jun 10
FY 2011	Telephonics Farmingdale, NY	C / FFP	Redstone Arsenal, AL	Jul 11	Oct 11	246	37.9	Yes		
FY 2012	Telephonics Farmingdale, NY	C / FFP	Redstone Arsenal, AL	Jul 12	Oct 12	810	24.7	Yes		
Air Warrior Airframe Kits										
FY 2010	Westwind Corporation Huntsville, AL	C / FFP	Redstone Arsenal, AL	Dec 09	Mar 10	904	8.1	Yes		Nov 07
FY 2011	Westwind Corporation	C / FFP	Redstone Arsenal, AL	Dec 10	Mar 11	1059	8.1	Yes		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2011

Appropriation/Budget Activity/Serial No: Aircraft Procurement, Army/ 4/ Support equipment and facilities		Weapon System Type:	P-1 Line Item Nomenclature: AIRCREW INTEGRATED SYSTEMS (AZ3110)							
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 2012 Survival Kit, Ready Access, Modular	Huntsville, AL Westwind Corporation Huntsville, AL	C / FFP	Redstone Arsenal, AL	Dec 11	Mar 12	1121	4.0	Yes		
FY 2012	FELLFAB Atlanta, GA	C / FFP	Redstone Arsenal, AL	Mar 12	Oct 12	5410	0.5	Yes		Apr 10
FY 2012 Helmet Hear Through System	TBD TBD	C / FP	Redstone Arsenal, AL	Mar 12	Oct 12	3100	0.4	Yes		Jul 10
FY 2012 Improved Helmet	TBD TBD	C / FFP	Redstone Arsenal, AL	Aug 12	Jun 13	2586	5.1	No		
FY 2012 Wearable Environmental Control System	TBD TBD	C / FFP	Redstone Arsenal, AL	Aug 12	Jun 13	632	7.0	No		
FY 2012 Air Soldier Airframe Kits	TBD TBD	C / FFP	Redstone Arsenal, AL	Aug 12	Feb 13	472	5.3	No		
FY 2012 PRSS Platform Modifications	TBD TBD	C / FFP	Sandia National Labs	Aug 12	Aug 13	6	400.0	No		

REMARKS:

FY 10 / 11 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE AIRCREW INTEGRATED SYSTEMS (AZ3110)										Date: February 2011									
COST ELEMENTS						Fiscal Year 10										Fiscal Year 11													
M F R	FY	S E R V	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 10										Calendar Year 11										Later			
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G
Air Warrior Block 1 Ensembles																													
8	FY 10	A	3000	0	3000																								0
4	FY 11	A	1004	0	1004																								417
Air Warrior OEF Camouflage Pattern																													
9	FY 10	A	3250	0	3250																								1630
Air Warrior Microclimate Cooling Garment																													
2	FY 10	A	920	0	920																								0
2	FY 11	A	500	0	500																								290
2	FY 12	A	2500	0	2500																								2500
Air Warrior Microclimate Cooling Units																													
2	FY 10	A	1880	0	1880																								0
2	FY 11	A	567	0	567																								238
Electronic Data Mgr (EDM)																													
5	FY 10	A	500	0	500																								0
5	FY 11	A	601	0	601																								301
5	FY 12	A	1001	0	1001																								1001
Aaft Wireless Intercom Sys (AWIS)																													
3	FY 10	A	72	0	72																								0
3	FY 11	A	246	0	246																								246

M F R	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
		1	Initial	5			9	3				12
1	Westwind Corporation, Huntsville, AL	50	400	1500		1	Initial	5	9	3	12	
							Reorder	0	2	3	5	
2	Carleton Technologies, Inc., Orchard Park, NY	84	500	800		2	Initial	4	8	4	12	
							Reorder	0	2	3	5	
3	Telephonics, Farmingdale, NY	6	250	500			Initial	5	9	3	12	
							Reorder	0	9	3	12	
4	CONAX, St. Petersburg, FL	83	300	1000		3	Initial	5	9	3	12	
							Reorder	0	9	3	12	
5	Raytheon, Indianapolis, IN	41	300	500			Initial	6	4	4	8	
							Reorder	0	2	2	4	
6	FELLFAB, Atlanta, GA	200	600	800		4	Initial	5	4	4	8	
							Reorder	0	2	4	6	
8	Aerial Machine & Tool Corp, Vesta, VA	83	300	1000		5	Initial	5	4	4	8	
							Reorder	0	2	4	6	
9	Science & Engr Svcs, Inc, Huntsville, AL	100	300	500			Initial	5	4	4	8	
							Reorder	0	2	4	6	

FY 12 / 13 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE AIRCREW INTEGRATED SYSTEMS (AZ3110)										Date: February 2011											
COST ELEMENTS						Fiscal Year 12										Fiscal Year 13										Later					
M F R	FY	S E R V	PROC QTY Units	ACCEP PRIOR TO 1 OCT	BAL DUE AS OF 1 OCT	Calendar Year 12										Calendar Year 13															
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G	S E P	
Air Warrior Block 1 Ensembles																															
8	FY 10	A	3000	3000																								0			
4	FY 11	A	1004	587	417	84	84	83	83	83																		0			
Air Warrior OEF Camouflage Pattern																															
9	FY 10	A	3250	1620	1630	270	270	270	270	270	280																	0			
Air Warrior Microclimate Cooling Garment																															
2	FY 10	A	920	920																								0			
2	FY 11	A	500	210	290	42	42	42	42	42	42	38																0			
2	FY 12	A	2500	0	2500							A					209	208	208	208	208	208	208	208	208	208	208	209	209	209	0
Air Warrior Microclimate Cooling Units																															
2	FY 10	A	1880	1880																								0			
2	FY 11	A	567	329	238	47	47	47	48	49																		0			
Electronic Data Mgr (EDM)																															
5	FY 10	A	500	500																								0			
5	FY 11	A	601	300	301	50	50	50	50	50	51																	0			
5	FY 12	A	1001	0	1001			A				84	84	84	84	84	84	83	83	83	83	83	82					0			
Acft Wireless Intercom Sys (AWIS)																															
3	FY 10	A	72	72																								0			
3	FY 11	A	246	0	246	15	15	20	20	20	20	22	22	23	23	23	23											0			
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

M F R	Name - Location	PRODUCTION RATES			Reached D+	MFR	ADMIN LEAD TIME		MFR After 1 Oct	TOTAL After 1 Oct	REMARKS	
		MIN	1-8-5	MAX			Prior 1 Oct	After 1 Oct				
												1
1	Westwind Corporation, Huntsville, AL	50	400	1500		1	Initial	5	9	3	12	
							Reorder	0	2	3	5	
2	Carleton Technologies, Inc., Orchard Park, NY	84	500	800		2	Initial	4	8	4	12	
							Reorder	0	2	3	5	
3	Telephonics, Farmingdale, NY	6	250	500			Initial	5	9	3	12	
							Reorder	0	9	3	12	
4	CONAX, St. Petersburg, FL	83	300	1000		3	Initial	5	9	3	12	
							Reorder	0	9	3	12	
5	Raytheon, Indianapolis, IN	41	300	500			Initial	6	4	4	8	
							Reorder	0	2	2	4	
6	FELLFAB, Atlanta, GA	200	600	800		4	Initial	5	4	4	8	
							Reorder	0	2	4	6	
8	Aerial Machine & Tool Corp, Vesta, VA	83	300	1000		5	Initial	5	4	4	8	
							Reorder	0	2	4	6	
9	Science & Engr Svcs, Inc, Huntsville, AL	100	300	500			Initial	5	4	4	8	
							Reorder	0	2	4	6	

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature AIR TRAFFIC CONTROL (AA0050)
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Program Elements for Code B Items:			Code:		Other Related Program Elements: 0604633A/586 Air Traffic Control							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	824.5	86.8	90.4	114.8		114.8	87.8	83.3	83.2	83.7		1454.4
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	824.5	86.8	90.4	114.8		114.8	87.8	83.3	83.2	83.7		1454.4
Initial Spares												
Total Proc Cost	824.5	86.8	90.4	114.8		114.8	87.8	83.3	83.2	83.7		1454.4
Flyaway U/C												
Weapon System Proc U/C												

Description:
Tactical Air Traffic Control (ATC) equipment includes Air Traffic Navigation Integration and Coordination System (ATNAVICs), Tactical Airspace Integration System (TAIS), TAIS Airspace Workstation (AWS), Tactical Terminal Control System (TTCS), Mobile Tower System (MOTS), and AN/TRN-30 Non-Directional Beacon (NDB). ATNAVICs provides all weather instrument flight capabilities to include terminal, radar precision approach and landing services to all Army, Joint, and allied aircraft. ATNAVICs preplanned product improvements (P3I) include Mode 5/S (friend/foe identification), improved radio communications, ATNAVICs/TAIS Air Picture Integration to improve commander situational awareness, Information Assurance and computer and hardware upgrades. TAIS, a digitized battlefield automated system of the Army Battle Command System (ABCS), performs enroute Air Traffic Services (ATS) and Airspace Command and Control (AC2) at brigade to theater commands. TAIS P3I includes Advanced Fusion Tracking System (AFTS) and Link 16/Tactical Digital Information Link (TADIL-J) upgrades that improve the reliability and usability of the air picture. AFTS provides a fused air picture from multiple sources. Link 16/TADIL-J upgrades ensure that TAIS remains compatible with the DoD standards for these data links and continues to receive joint air track data from the Link 16 network for situational awareness. TAIS AWS provides for AC2 planning and execution at the Brigade Combat Team (BCT) and above. It is the Army's link to the Theater Battle Management Core System for Joint Airspace Management. TAIS and TAIS AWS provide an automated AC2 and ATS capability for current requirements and Battle Command interfaces. TTCS provides enhanced ATS communications support to aviation assets conducting reconnaissance, maneuver, medical evacuation, logistics, intelligence operations across the battlefield and remote capability up to 1 kilometer. MOTS provides positive air traffic control and aircraft separation for both air and ground operations at tactical or remote landing sites. Its capabilities include weather information, secure and anti-jam communications across all required frequency bands and ranges, and precision location. ATNAVICs, TAIS, and MOTS serve as effective air traffic risk management tools for aviation safety during night, inclement weather, and combat operations. The NDB is a tactical, enroute, and terminal radio navigation aid used for aircraft navigation and recovery in adverse weather situations. Fixed Base ATC requirements will be met through a vast array of high technology solutions resulting in highly reliable and safe ATC systems in accordance with the Joint DoD/Federal Aviation Administration (FAA) program to modernize the National Airspace System (NAS). This includes upgrading and automating the complete infrastructure by systematically replacing antiquated analog systems with installation of state of the art digital technology. These systems include Department of Defense (DoD) Advanced Automation System (DAAS), Digital Airport Surveillance Radar (DASR), and navigational control aids which consist of Voice Recorder Replacement Program (VRRP), Army Airfield Automation System (AAAS), and Radio and Antenna replacement program. The Fixed Base Precision Approach Radar (FBPAR) is the Army's primary ground controlled precision approach capability to provide recovery operations for aircraft to fixed base airfields during adverse weather conditions. FBPAR P3I includes upgrading the computer capabilities, installing coolant upgrades and resolving obsolescence issues.

Justification:
FY 2012 Base procurement dollars in the amount of \$114.844 million supports tactical and fixed base ATC systems and P3I modifications to these systems. Funds for tactical ATC systems provide for upgrades and modifications to TAIS, TAIS AWS, ATNAVICs, TTCS, NDB and procurement of the MOTS system. ATNAVICs upgrades will address joint interoperability and networking capabilities, as well as Information Assurance requirements, integrating the Air Defense Interrogator to interrogate Mode 5/S equipped aircraft. These enhancements will allow the ATNAVICs to

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature AIR TRAFFIC CONTROL (AA0050)
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Program Elements for Code B Items:	Code:	Other Related Program Elements: 0604633A/586 Air Traffic Control
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transmit critical air picture information to TAIS and DOD Command and Control network/systems. TAIS airspace management functions will be modified as web services that will be available throughout the tactical network via a common server to properly credentialed users. TAIS airspace management web services will also support Army Battle Command, ATS, and Airspace Integration Improvements Initiatives (AI3). Current chat messaging capability will be modified to a real time, cross-echelon collaboration capability. TTCS will integrate remote capability in accordance with the Operational Requirements Document (ORD) requirement for force protection. These modifications to tactical ATC systems ensure Army ATC and Army airspace command and control systems are capable of supporting the path ahead to the Future Force. Obsolescence upgrades to the NDB will improve the system's current marginal availability rate by replacing unrepairable components with modern, reliable electronics. Funds for the fixed base ATC systems provide Pre-Planned Product Improvements (P3I), modifications, and upgrades to DAAS, DASR, Navigational Control Aids, and FBPAR giving the Army a joint service capability required for the DoD/FAA modernization and upgrade of the NAS via the Next Gen program. These systems will save significant Operational and Support costs by replacing old, obsolete, and antiquated analog radars, and automation systems with highly reliable modern and compliant ATC systems in towers and approach control facilities. Radios will meet current and emerging spectrum management requirements. Equipment quantity and configuration is tailored to meet specific site requirements, resulting in varying unit costs. Funding ensures compliance and interoperability between the Army, Joint, and FAA systems.

All COMPO 1 Active

Exhibit P-5, Weapon ACFT Cost Analysis	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: February 2011
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ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
Fixed Base Precision Approach Radar		2197			1713			7729						7729		
DoD Advanced Automation System (DAAS)		2148			4297			5503						5503		
Digital Airport Surveillance Radar(DASR)		13513			2384			2346						2346		
Tactical Airspace Integration Sys (TAIS)		22335			21233			21475						21475		
Air Traffic Navigation and Integration		32742			23049			24676						24676		
TAIS Airspace Workstation (AWS)		1240			400			400						400		
Navigational Control Aids		8276			6637			11210						11210		
Tactical Terminal Control System (TTCS)		4311			5565			1376						1376		
Mobile Tower System (MOTS)					25121			39179						39179		
Non-Directional Beacon (NDB)								950						950		
Total:		86762			90399			114844						114844		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	175.9	1.5	1.6			1.6	1.6	1.6	1.6	1.6		187.1
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	175.9	1.5	1.6			1.6	1.6	1.6	1.6	1.6		187.1
Initial Spares												
Total Proc Cost	175.9	1.5	1.6			1.6	1.6	1.6	1.6	1.6		187.1
Flyaway U/C												
Weapon System Proc U/C												

Description:
 This program provides funding to the Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC) to establish, modernize, expand or replace test 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 provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. Programmed funding will be used to upgrade or replace production test instrumentation and equipment at the Redstone Test Center (RTC), Huntsville, AL and Yuma Proving Ground (YPG), Yuma, AZ. Note: Previous years funding supported sustainment of production test capabilities at the Aviation Technical Test Center (ATTC), Fort Rucker, AL. Base Realignment and Closure (BRAC) decisions move the ATTC from Fort Rucker, to RTC in Huntsville, AL. All of the instrumentation and equipment procured for ATTC will be moved with the Test Center to Huntsville and will be used for Aircraft Testing in the relocation of this mission.

Justification:
 ATEC: At RTC, FY 2012 procures upgraded telemetry equipment used to capture and process real-time data transmitted at high data rates and frequencies during open air developmental flight tests. At YPG, FY 2012 procures replacement aircraft instrumentation for the time-stamping and on-board recording and telemetering of data from standard 1553 multiples bus, analog video from sensors, intercom (voice), and analog sensors; and on-board recorders and telemetry equipment that can meet the environment and data speeds needed for production base aviation programs. Funding will also provide YPG enhancements and upgrades to the data acquisition software and flight models in the weapons System Test and Integration Lab; procure new NSA approved telemetry encryption and decryption devices to support classified test missions; procure an acoustic/seismic sensor system that will allow the YPG test team to accurately determine impact locations for high rate aerial fired weapon systems during aircraft weapons performance tests and procure on-board instrumentation for real-time collection of aircraft performance data. The majority of the instrumentation being upgraded or replaced is obsolete and has met or exceeded its economic life. This instrumentation is required to ensure complete and accurate test data is collected and safety and environmental hazards are minimized.

All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities
 P-1 Item Nomenclature: PROVISION OF INDUSTRIAL FACILITIES (AA7700)

Program Elements for Code B Items:			Code:		Other Related Program Elements:							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	175.9	1.5	1.6	1.6		1.6	1.6	1.6	1.6	1.6		187.0
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	175.9	1.5	1.6	1.6		1.6	1.6	1.6	1.6	1.6		187.0
Initial Spares												
Total Proc Cost	175.9	1.5	1.6	1.6		1.6	1.6	1.6	1.6	1.6		187.0
Flyaway U/C												
Weapon System Proc U/C												

Description:
 This program provides funding to the Army Test and Evaluation Command (ATEC), Developmental Test Command (DTC) to establish, modernize, expand or replace test 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 provides increased automation and efficiencies, improved data quality and quantity and cost avoidances to Army Program Managers. Programmed funding will be used to upgrade or replace production test instrumentation and equipment at the Redstone Test Center (RTC), Huntsville, AL and Yuma Proving Ground (YPG), Yuma, AZ. Note: Previous years funding supported sustainment of production test capabilities at the Aviation Technical Test Center (ATTC), Fort Rucker, AL. Base Realignment and Closure (BRAC) decisions move the ATTC from Fort Rucker, to RTC in Huntsville, AL. All of the instrumentation and equipment procured for ATTC will be moved with the Test Center to Huntsville and will be used for Aircraft Testing in the relocation of this mission.

Justification:
 ATEC: At RTC, FY 2012 procures upgraded telemetry equipment used to capture and process real-time data transmitted at high data rates and frequencies during open air developmental flight tests. At YPG, FY 2012 procures replacement aircraft instrumentation for the time-stamping and on-board recording and telemetering of data from standard 1553 multiples bus, analog video from sensors, intercom (voice), and analog sensors; and on-board recorders and telemetry equipment that can meet the environment and data speeds needed for production base aviation programs. Funding will also provide YPG enhancements and upgrades to the data acquisition software and flight models in the weapons System Test and Integration Lab; procure new NSA approved telemetry encryption and decryption devices to support classified test missions; procure an acoustic/seismic sensor system that will allow the YPG test team to accurately determine impact locations for high rate aerial fired weapon systems during aircraft weapons performance tests and procure on-board instrumentation for real-time collection of aircraft performance data. The majority of the instrumentation being upgraded or replaced is obsolete and has met or exceeded its economic life. This instrumentation is required to ensure complete and accurate test data is collected and safety and environmental hazards are minimized. Benefits of this project include increased test efficiencies and decreased costs and risks to Army Program Managers.

All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet

Date: February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty				464		464	520	461	447	442		2334
Gross Cost	73.5	2.7	2.9	2.9		2.9	3.2	2.9	2.9	2.9		93.8
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	73.5	2.7	2.9	2.9		2.9	3.2	2.9	2.9	2.9		93.8
Initial Spares												
Total Proc Cost	73.5	2.7	2.9	2.9		2.9	3.2	2.9	2.9	2.9		93.8
Flyaway U/C												
Weapon System Proc U/C				0.0		0.0	0.0	0.0	0.0	0.0		0.0

Description:
 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, and AH-6J helicopters. The launchers are non-repairable yet durable enough to withstand at least 16 rocket firings per tube before being discarded. The empty weight of the M260 launcher is approximately 35 pounds, and the empty weight of the M261 launcher is approximately 82 pounds. The launcher permits fuze-timing selection from the cockpit and will launch rockets using either the MK 40 or the MK 66 motors.

Justification:
 FY2012 procurement dollars in the amount of \$2.883 million support both the M260 7-tube rocket launcher for OH-58D Kiowa Warrior and AH-6J helicopters and the M261 19-tube launcher for the AH-64 Apache, MH-60L Blackhawk, and AH-6J helicopters. Procurement replaces launchers expended as a result of annual rocket firings for 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.

All COMPO 1 Active

Exhibit P-40, Budget Item Justification Sheet	Date: February 2011
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Appropriation / Budget Activity / Serial No: Aircraft Procurement, Army / 4 / Support equipment and facilities	P-1 Item Nomenclature AIRBORNE COMMUNICATIONS (AA0705)
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Program Elements for Code B Items:			Code:		Other Related Program Elements: AA0700							
	Prior Years	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	To Complete	Total Prog
Proc Qty												
Gross Cost	349.8	11.1										360.9
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc P1	349.8	11.1										360.9
Initial Spares												
Total Proc Cost	349.8	11.1										360.9
Flyaway U/C												
Weapon System Proc U/C												

P-40 Breakdown										
Area		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016
Active	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	11020.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
National Guard	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserve	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	Qty	0	0	0	0	0	0	0	0	0
	Gross Cost	11075	0	0	0	0	0	0	0	0

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

Justification:
FY12 base funding - no budget request.

Exhibit P-5, Weapon ACFT Cost Analysis	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: February 2011
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ACFT Cost Elements	ID CD	FY 10			FY 11			FY 12 Base			FY 12 OCO			FY 12 Total		
		Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000	\$000	Each	\$000
RECURRING COSTS																
A. AN/ARC-220 NOE HF Airborne Radio		3601	44	82												
B. AN/VRC-100 Ground Radio		4645	66	70												
C. Misc Non-LOS Equipment (OCO)																
D. A-Kits		616	44	14												
E. A-Kit Installation		1414	44	32												
SUBTOTAL		10276														
SUPPORT COST																
A. Fielding Support		571														
B. Program Management		228														
SUBTOTAL		799														
Total:		11075														