ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY

PE NUMBER AND TITLE

7 - Operational system development

0203744A - Aircraft Modifications/Product Improvement Program

	COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	297917	336884	301739	256998	408701	418964	509326	Continuing	Continuing
028	Aerial Common Sensor (ACS) (JMIP)	120302	64980	32719	26584	171530	245991	349800	0	1161496
430	IMPR CARGO HELICOPTER	12360	42532	13051	11260	9989	11053	11253	0	128728
504	BLACK HAWK RECAPITALIZATION/MODERNIZATION	106626	121215	126991	88952	34595	35902	41329	Continuing	Continuing
D12	LONGBOW APACHE OPERATIONAL SYSTEMS DEVELOP	1629	0	0	0	0	0	0	0	3293
D17	APACHE BLOCK III	57000	108157	123405	123616	189546	126018	106944	Continuing	834686
D18	UTILITY FW CARGO AIRCRAFT	0	0	5573	6586	3041	0	0	0	15200

A. Mission Description and Budget Item Justification: This PE provides for development of modifications and improvements for the Guardrail Common Sensor/Aerial Common Sensor, the Improved Cargo Helicopter (ICH), the UH-60A/L Black Hawk Recapitalization/Modernization.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit) February 2006 BUDGET ACTIVITY PE NUMBER AND TITLE 7 - Operational system development 0203744A - Aircraft Modifications/Product Improvement Program FY 2007 FY 2005 FY 2006 B. Program Change Summary Previous President's Budget (FY 2006) 242628 409103 420769 Current BES/President's Budget (FY 2007) 297917 336884 301739 -119030 Total Adjustments 55289 -72219 Congressional Program Reductions -3408 Congressional Rescissions -134 -1561 Congressional Increases -67250 Reprogrammings 58577 SBIR/STTR Transfer Adjustments to Budget Years -3154 -119030

Change Summary Explanation: Funding - FY 05:\$57000 funds transferred from Aircraft Procurement to RDTE in support of Apache Block III. FY 06: Congressional plus up on CH47 for Integrated Mechanical Diagnostics(\$19.5) and for MAST (\$3.9), Congressional Plus up for UH-60 for \$7.0 MAST

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	0203744A - Aircraft Modifications/Product Improvement Program	028

	COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
028	Aerial Common Sensor (ACS) (JMIP)	120302	64980	32719	26584	171530	245991	349800	0	1161496

A. Mission Description and Budget Item Justification: The Aerial Common Sensor (ACS) is the airborne intelligence collection system required to provide critical support to early entry, forward deployed forces, and to support the future force's seamless intelligence architecture. ACS is the future force system that will satisfy the Army and Navy's critical need for a responsive worldwide, self-deployable, airborne reconnaissance, intelligence, surveillance and target acquisition (RISTA) capability that can immediately begin operations upon arriving in theatre. Specifically, ACS will replace the Army's GRCS and ARL and the Navy's EP-3 systems. The ACS will merge Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), and Measurement and Signature Intelligence (MASINT) into a single airborne system capable of providing a rapid response information dominance capability dedicated to the Joint Force Commander's need for precision real-time geolocation of the enemy on the future force battlefield. ACS will be capable of operating independently or remotely via SATCOM or line-of-sight datalinks to a ground station. ACS will be Joint Airborne SIGINT Architecture (JASA) and Unified Cryptologic Architecture (UCA) compliant and be interoperable within the open Network centric C4ISR architecture in order to support all combat and combat support functions through the emerging DOD Global Information Grid. The primary mission will be standoff Muti-INT (SIGINT, SAR, MTI) collection, with a secondary mission of overflight Imagery (EO/IR) Intelligence. ACS ground functionality will be provided by the Distributed Common Ground Station-ARMY(DCGS-A). ACS is primarily targeted against threat maneuver forces, logistic areas, rocket and artillery forces, air defense artillery, and command control communications and intelligence ACS will satisfy unique Tactical Manuever Commander Indications and Warning, Situation Development, Targeting, and Battle Damage Assessment Intelligence, Surveillance and Reconnaissance (ISR) requirements. A

The National Security Agency's Defense Cryptologic Program (DCP) and Defense Advanced Project (DARP) provides funding to support enhanced SIGINT capabilities.

FY 07 funds support continuation of ISR studies, continued sensor maturation and future ACS risk reduction efforts in the form of current system capability enhancements.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
Continued execution of contract for ACS Increment 1 System SDD Phase which will integrate technologies developed and demonstrated during the Technology Demonstration phase	65283	0	0
Modeling, Program Office, Matrix Engineering and Test support for the AC Sensors	23019	13321	13540
Support Joint ISR, Aircraft, Integration & CONOPS Studies, Technical Maturation efforts - augment GRCS/ARL relevancy modernization	0	43659	19179
SDD Contract Termination Settlement Costs	32000	8000	0
Total	120302	64980	32719

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
ACS DCP	12995	0	0	0	0	0	0	0	28119

ARMY RDT&E BUDGET	r ITEM J	USTIF	ICATIO	N (R2a]	Exhibit)			February 2	2006
BUDGET ACTIVITY 7 - Operational system development			ER AND TITL A - Aircra		tions/Prod	uct Improv	ement Prog		DJECT 3
ACS DARP	0	17545	18056	11331	12175	11928	11320	CONT	CONT
CHALS DCP	2931	1930	1412	4108	4218	4152	4047	CONT	CONT
GRCS DCP	6446	3643	3524	2284	2345	2308	2249	CONT	CONT
0305206/DK98 Tactical Reconnaissance	5111	5321	12	12	13	18	21	CONT	CONT
A02005 Aerial Common Sensor- Aircraft Procurement, Army	0	0	0	0	4907	3456	4736	CONT	CONT
0307207N/3015 Navy Aerial Common Sensor	19500	0	0	0	0	0	0	0	19500

Comment: FY07 DCP/DARP provides funding for the development of ACS SIGINT technologies needed to ensure applicability of ACS in the evolving future force architecture. Tactical Reconnaissance funds MASINT/IMINT technologies that will be integrated into ACS. Navy RDTE funding supported SDD efforts for the baseline ACS prior to SDD contract termination.

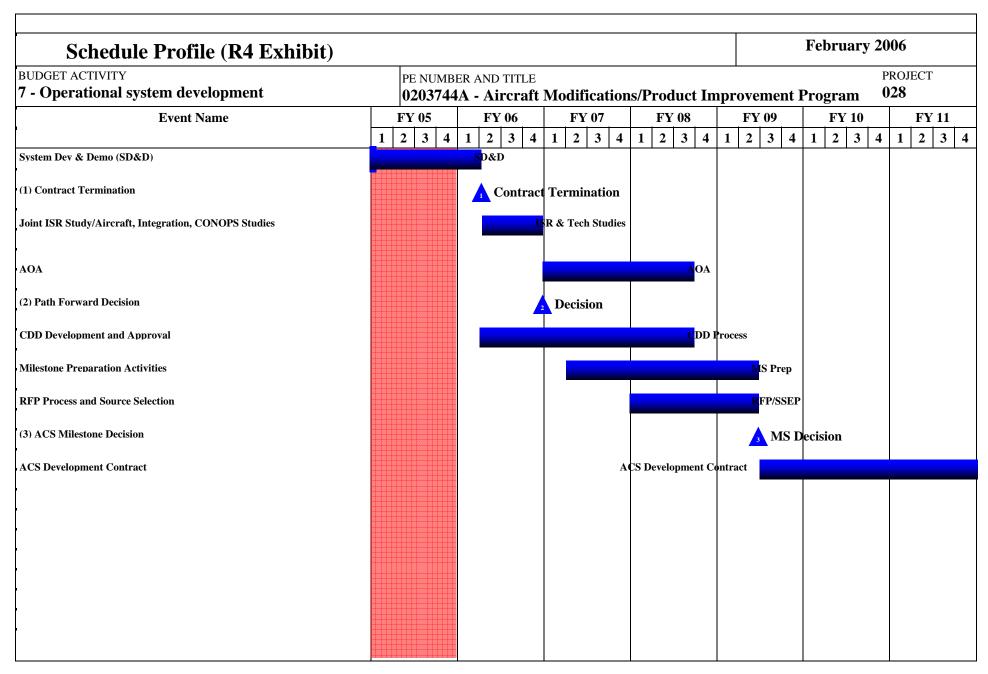
C. Acquisition Strategy MS B ADM was approved 4QFY04 for entry into the ACS SDD phase. The SDD contract was awarded on a competitive basis on 2 August 2004. The SDD contract was terminated for the convenience of the government on 12 January 2006. The funds remaining in the line will support Joint ISR, CONOPS, Integration & Aircraft studies, and sensor maturation efforts, which will reduce ACS risk through these current system capabilities enhancements. At the conclusion of the ISR study, an analysis of alternatives will result in a decision regarding a path-forward for future ACS development. A milestone decision is currently planned for in FY 2009.

February 2006 ARMY RDT&E COST ANALYSIS (R3) BUDGET ACTIVITY PE NUMBER AND TITLE PROJECT 0203744A - Aircraft Modifications/Product Improvement Program 7 - Operational system development 028 FY 2006 FY 2007 FY 2007 I. Product Development Total FY 2005 FY 2005 FY 2006 Cost To Total Contract Performing Activity & Target Method & Location PYs Cost Award Cost Award Complete Cost Value of Cost Award Cost Contract Type Date Date Date ACS SDD Contract/Terminiation C-CPAF Lockheed Martin. 81438 90258 1-20 1-20 0 879000 8000 Liability Littleton, CO 0 0 Multi-Role-Tactical Command Data SS-CPAF L-3 Communications. 4591 20 5000 20 4590 Link Development Salt Lake City, UT 0 CHALS Enhancement Development | SS-CPFF Lockheed Martin. 0 10 4000 20 2500 Owego, NY 0 GRCS COMINT Migration for ACS C-CPFF Northrop Grumman, 0 8000 2-30 2500 10 Sunnyvale, CA Modern Signals Sensor Prototype TBD TBD: Various 0 0 9000 2000 20 10 C-T&M TBD 0 0 2Q 2494 1-30 1Q Product Development Support 1500 Product Development Support MIPR Gov't/Various 0 0 2075 1150 1-20 1-2Q 1-2Q Subtotal: 81438 94849 38569 9650 883590 Performing Activity & Total FY 2005 FY 2005 FY 2006 FY 2006 FY 2007 FY 2007 Cost To Total II. Support Costs Contract Target Method & Location PYs Cost Cost Award Cost Award Cost Award Complete Cost Value of Date Date Date Contract Type ACS Operational Performance SS-CPFF SAIC thru TEC 9205 1800 20 1500 1-20 1500 1-20 Continue Continue Model Model Evalution Support Gov't /Kr Multiple 5771 2430 1-30 590 1-30 590 1-30 Continue Continue 0 0 0 Aircraft, ISR and Integration Gov/KR; TBD TBD 3000 30 Validation Studies Gov/Kr:TBD 0 0 0 AoA Study 2264 10 CONOPS Analysis and CDD Gov/Kr: TBD | Kr. Various 1400 1400 1-30 2-30 Development Kr/Various Infrastructure Studies: Software. Gov't, Various 0 0 3000 1-20 2000 1-20 Security, Meta Data/Single Signal Archetitecture (SSA) Studies and Analysis Support C-T&M Kr; Various 0 0 1200 1135 1-20 1-20

0203744A (028) Aerial Common Sensor (ACS) (JMIP) Item No. 159 Page 5 of 35

Exhibit R-3 ARMY RDT&E COST ANALYSIS

ARMY RDT&	&E COS'	T ANALYSIS	(R3)							February	2006	
BUDGET ACTIVITY 7 - Operational system de	evelopment		PE NUMBI 0203744			ifications	s/Produc	t Improv	ement I	Program	PROJE(028	CT
Studies and Analysis Support	MIPR	Gov't	0	0		1465	1-2Q	575	1-2Q	0	0	(
Subto	tal:		14976	4230		12090		9529		Continue	0	Continue
		1	11									
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
Airframe Engineering & Evaluation Support	MIPR	AMRDEC, Redstone Aresenal, AL	3550	2600	1-2Q	190	1-2Q	190	1-2Q	Continue	0	Continue
Test Support	MIPR/ C- T&M	Gov't/Kr Various	1497	1110	1-2Q	1065	1-2Q	1150	1-2Q	Continue	0	Continue
Subto	tal:		5047	3710		1255		1340		Continue	0	Continue
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Targe Value of Contrac
ACS/GRCS/ARL Core Staff	In-House	PM, AC Sensors	10930	5855	1-4Q	4726	1-2Q	4800	1-2Q	Continue	0	Continue
Program Support	C-T&M	TBD; ETOSS	3304	3200	1-3Q	2130	2Q	1200	1-2Q	0	0	7004
Program Support	C-T&M	ILEX, Tinton Falls, NJ	0	400	1-2Q	1475	1-2Q	1200	1-2Q	Continue	0	Continue
Program Management	Kr; Various	Multiple	2857	3171	1-3Q	1470	1-3Q	1400	1-3Q	Continue	0	Continue
	MIPR	Gov't; Various	6802	2757	1-2Q	1343	1-2Q	1500	1-2Q	Continue	0	Continue
Matrix Support	MIPK	Govi, various					1.20	2100	1-3Q	Cti	0	Continue
Matrix Support Matrix Support	MIPR	CRDEC/I2WD, Ft Monmouth, NJ	0	2130	1-3Q	1922	1-3Q	2100	1-3Q	Continue	0	Continu
	MIPR	CRDEC/I2WD, Ft	23893	2130 17513	1-3Q	1922 13066	1-3Q	12200	1-3Q	Continue	0	Continue
Matrix Support	MIPR	CRDEC/I2WD, Ft	, and the second		1-3Q		1-3Q		1-3Q			



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY

7 - Operational system development

PE NUMBER AND TITLE

0203744A - Aircraft Modifications/Product Improvement Program

028

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
ACS System Dev and Demo (SD&D) Phase Contract	1-4Q	1-2Q					
ACS Contract Termination and Closeout		2-4Q	1-3Q				
Joint ISR Study/Technology Studies		2-4Q					
AOA			1-4Q	1-3Q			
CDD Development & Approval		2-4Q	1-4Q	1-3Q			
Milestone Preparation			2-4Q	1-4Q	1-2Q		
MS Decision					2Q		
RFP Documentation and Source Selection				1-4Q	1-2Q		
ACS Development Contract Restart					2-4Q	1-4Q	1-4Q

Termination Liability Funding For Major Defense A	cquisition Progra	ms, RDT&	E Funding	(R5)		Febr	uary 2006	
BUDGET ACTIVITY	PE NUMBER AND	ΓITLE					PROJ	IECT
7 - Operational system development	0203744A - Air	craft Mod	difications	Product I	mprovem	ent Progra	am 028	
Funding in \$000								
Program		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
	_							
Total Termination Liability Funding:	_							

Remarks:

This program does not budget/fund termination liability separately. A Limitation of Funds clause (FAR 52.232-22) is inserted in all incrementally funded R&D contracts. This clause is designed to limit the government's legal liability to the amount obligated on the contract.

February 2006 **ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)** BUDGET ACTIVITY PE NUMBER AND TITLE **PROJECT** 7 - Operational system development 0203744A - Aircraft Modifications/Product Improvement Program 430 FY 2009 FY 2010 FY 2005 FY 2006 FY 2007 FY 2008 FY 2011 Cost to Total Cost COST (In Thousands) Estimate Estimate Estimate Estimate Estimate Estimate Estimate Complete 430 IMPR CARGO HELICOPTER 12360 42532 13051 11260 9989 11053 11253 128728

A. Mission Description and Budget Item Justification: As the Army's only heavy-lift helicopter capable of intra-theater cargo movement of payloads up to 16,000 lbs in a high, hot environment, 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. The CH-47F Common Avionics Architecture System (CAAS) digital cockpit will provide future growth potential to meet the Net-Ready Key Performance Parameters (KPPs) and includes a digital data bus that permits installation of enhanced communication and navigation equipment for improved situational awareness, mission performance, and survivability. New airframe structural components and modifications will reduce harmful vibrations, improving operation and support (O&S) efficiency and crew endurance. The CH-47F program funds completion of the Independent Operational Test and Evaluation program. Developmental improvements to the T55-GA-714A engines includes testing for Engine Compressor Blade Coating. The Infrared (IR) Suppression system for the 714A engine improves the survivability of the CH-47 by reducing aircraft visual and IR signature to delay or prevent acquisition and engagement of IR manpads. Developmental improvements are included for the Low Maintenance Rotor Hub (LMRH). The Airframe Component Improvement Program funds Swashplate Redesign, Aircraft Transmission Cooling Fan, Integrated Cargo Handling/Ballistic Protection Floor System. The Health and Usage Monitoring System (HUMS) incorporated onboard the Chinook aircraft will collect timely and accurate diagnostic data which will be used to enhance fleet management. The Cargo Condition Based Maintenance (CBM)/HUMS effort will provide near real time accurate aviation maintenance and component performance data for fleet management; provide logistical and engineering data to Army support organizations at a level of detail previously unavailable; exercise CBM technologies and processes in the context of a

Accomplishments/Planned Program						FY 2005	. 1	FY 2006	FY 2007
Operational Test & Evaluation							0	2500	1536
Provide product technical support							0	1750	0
Continue Contract Live Fire Test & Evaluation							0	500	0
Continue in-house and program management administration	l .						300	827	515
Continue Government Test & Evaluation.							0	2250	0
Test Analysis							0	1000	0
714 Engine							4375	3500	2592
Low Maintenance Rotor Hub							7685	6805	2763
Airframe Component Improvement Program/Health and Us	age Monitoring	System (HUMS)				0	23400	5645
Total						1	2360	42532	13051
				•					·
B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 20	11 To Co	mpl Total Cost

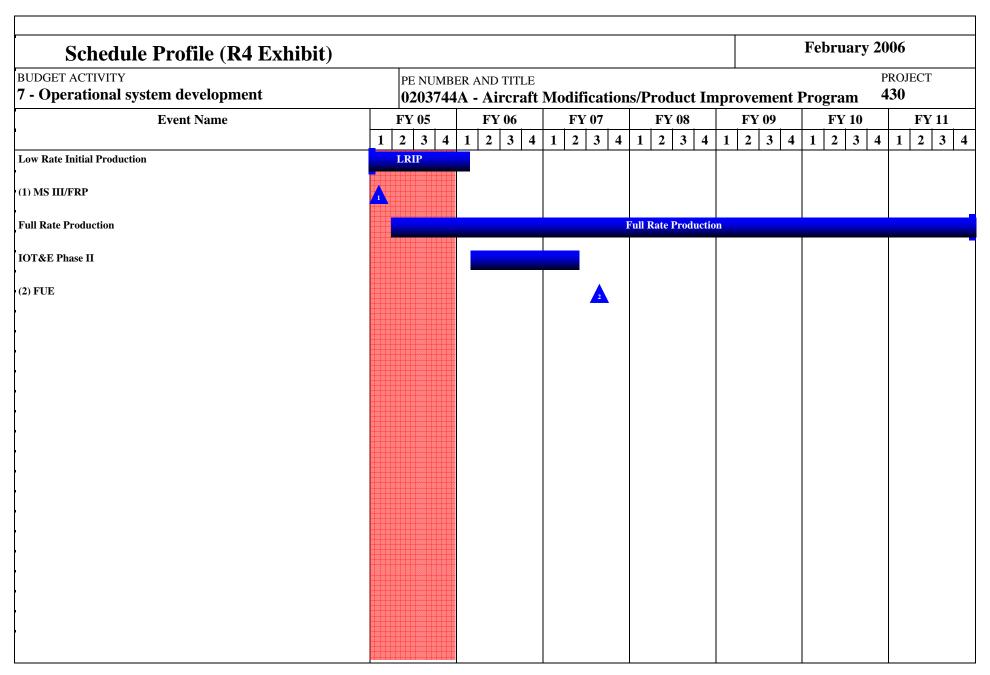
0203744A (430) IMPR CARGO HELICOPTER Item No. 159 Page 10 of 35

ARMY RDT&E BUDGET	Γ ITEM J	USTIFIC	CATION	$\mathbf{R2a} \mathbf{\overline{E}}$	Exhibit)		I	February 20	006
BUDGET ACTIVITY 7 - Operational system development			R AND TITLE A - Aircraft	Modificat	ions/Produ	ıct Improve	ement Progr	PROJ ram 430	ECT
APA, SSN AA0252, CH-47 CARGO HELICOPTER MODS (MYP) (Including Adv Proc and Initial Spares)	856741	677532	617357	755674	1046959	863713	967937	6381767	1800982
C. Acquisition Strategy The CH-47F rebuild progra	m extends the s	ervice life by ty	venty vears in	cornorates a	new machine	d airframe, and	d includes a ne	w Common A	vionics
Architecture System (CAAS) cockpit with digital conncludes recapitalization of key dynamic components	nmunication/na	vigation capabi	ility allowing i						
icitudes recapitalization of key dynamic components	, orniging tilem	to a near zero	unic.						

ARMY RDT8	EE COST	Γ ANALYSIS	(R3)							February	y 2006	
BUDGET ACTIVITY 7 - Operational system de	velopment		PE NUMBI 0203744	ER AND TI		ifications	s/Produc	t Improv	vement I	Program	PROJEC 430	CT
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
EMD	CPIF	Various	117221	0		0		0		0	117221	117098
TOCR	CPIF	Various	1600	0		0		0		0	1600	1600
Technical Support	CPFF	Various	6658	0		1750	1-2Q	0		0	8408	0
714 Engine	CPIF	Various	3259	4375	1-2Q	2500	1-2Q	2592	1-2Q	0	12726	0
Low Maintenance Rotor Hub	CPIF	Boeing	0	7685	2-3Q	6805	2-3Q	2763	1-2Q	0	17253	0
Blade Coating	CPIF	Honeywell	0	0		1000	1-2Q	0		0	1000	0
Airframe Component Improvement Program/Health and Usage Manitoring Systems (HJMS)			0	0		23400	2-3Q	5645	2Q	0	23400	0
Monitoring Systems (HUMS)												
Subtot	al:	1	128738	12060		35455		11000		0	181608	118698
	Contract Method &	Performing Activity & Location	Total PYs Cost	12060 FY 2005 Cost	FY 2005 Award Date	35455 FY 2006 Cost	FY 2006 Award Date	11000 FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of
Subtot II. Support Costs	Contract Method & Type	Location	Total PYs Cost	FY 2005 Cost	Award Date	FY 2006 Cost	Award Date	FY 2007 Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtot	Contract Method & Type Reimbursable		Total	FY 2005	Award	FY 2006	Award	FY 2007	Award	Cost To	Total	Target Value of Contract 0
Subtot II. Support Costs PMO/OGA	Contract Method & Type Reimbursable al: Contract Method &	Location	Total PYs Cost	FY 2005 Cost	Award Date 2-3Q FY 2005 Award	FY 2006 Cost 827	Award Date 2-3Q FY 2006 Award	FY 2007 Cost	Award Date 2-3Q FY 2007 Award	Cost To Complete	Total Cost	Target Value of Contract 0 Target Value of
II. Support Costs PMO/OGA Subtot III. Test And Evaluation	Contract Method & Type Reimbursable al: Contract Method & Type	Various government Performing Activity & Location	Total PYs Cost 12380 12380 Total PYs Cost	FY 2005 Cost 300 300 FY 2005 Cost	Award Date 2-3Q FY 2005	FY 2006 Cost 827 827 FY 2006 Cost	Award Date 2-3Q FY 2006 Award Date	FY 2007 Cost 515 515 FY 2007 Cost	Award Date 2-3Q FY 2007 Award Date	Cost To Complete 0 0 Cost To Complete	Total Cost 14022 14022 Total Cost	Target Value of Contract 0 Target Value of Contract
II. Support Costs PMO/OGA Subtot III. Test And Evaluation DT/OT	Contract Method & Type Reimbursable al: Contract Method & Type Reimbursable	Various government Performing Activity & Location Various government	Total PYs Cost 12380 12380 Total PYs Cost 14221	FY 2005 Cost 300 300 FY 2005 Cost	Award Date 2-3Q FY 2005 Award	FY 2006 Cost 827 827 FY 2006 Cost 4750	Award Date 2-3Q FY 2006 Award Date 1-2Q	FY 2007 Cost 515 515 FY 2007 Cost	Award Date 2-3Q FY 2007 Award	Cost To Complete 0 0 Cost To Complete	Total Cost 14022 14022 Total Cost	Target Value of Contract 0 Target Value of Contract
Subtot II. Support Costs PMO/OGA Subtot III. Test And Evaluation DT/OT Live Fire Test & Eval	Contract Method & Type Reimbursable al: Contract Method & Type Reimbursable Reimbursable	Various government Performing Activity & Location	Total PYs Cost 12380 12380 Total PYs Cost 14221 6365	FY 2005 Cost 300 300 FY 2005 Cost 0	Award Date 2-3Q FY 2005 Award	FY 2006 Cost 827 827 FY 2006 Cost 4750 500	Award Date 2-3Q FY 2006 Award Date	FY 2007 Cost 515 515 FY 2007 Cost 1536 0	Award Date 2-3Q FY 2007 Award Date	Cost To Complete 0 0 Cost To Complete	Total Cost 14022 14022 Total Cost 20507 6865	Target Value of Contract Target Value of Contract O O O O O O O O
II. Support Costs PMO/OGA Subtot III. Test And Evaluation DT/OT	Contract Method & Type Reimbursable al: Contract Method & Type Reimbursable	Various government Performing Activity & Location Various government	Total PYs Cost 12380 12380 Total PYs Cost 14221	FY 2005 Cost 300 300 FY 2005 Cost	Award Date 2-3Q FY 2005 Award	FY 2006 Cost 827 827 FY 2006 Cost 4750	Award Date 2-3Q FY 2006 Award Date 1-2Q	FY 2007 Cost 515 515 FY 2007 Cost	Award Date 2-3Q FY 2007 Award Date	Cost To Complete 0 0 Cost To Complete	Total Cost 14022 14022 Total Cost	Target Value of Contract 0 Target Value of Contract

0203744A (430) IMPR CARGO HELICOPTER Item No. 159 Page 12 of 35 178 Exhibit R-3 ARMY RDT&E COST ANALYSIS

ARMY RDT	XE COST	TANALYSIS	(R3)							February	2000	
UDGET ACTIVITY - Operational system development				PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program								
IV. Management Services	Contract	Performing Activity &	Total	FY 2005	FY 2005	FY 2006	FY 2006	FY 2007	FY 2007	Cost To	Total	Targe
1 · · · · · · · · · · · · · · · · · · ·	Method & Type	Location	PYs Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Complete	Cost	Value o
CAMBER/Westar	SS/FP	Huntsville, AL	3901	0		0		0		0	3901	390
Subto	otal:		3901	0		0		0		0	3901	390
				<u>, </u>				-				
Project Total (Cost:		167155	12360		42532		13051		0	229453	122599



February 2006 Schedule Detail (R4a Exhibit) BUDGET ACTIVITY PROJECT PE NUMBER AND TITLE 7 - Operational system development 430 0203744A - Aircraft Modifications/Product Improvement Program **Schedule Detail** FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011 Milestone III 1Q 1Q Full Rate Pdn Initial Oper Test & Eval (IOT&E) Phase II 1-2Q 1-4Q

3Q

FUE

•	ARMY RDT&E BUDGET IT	I	February 2006							
	T ACTIVITY erational system development		PE NUMBER A 0203744A -		ment Progi	PROJECT 504				
	COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
504	BLACK HAWK RECAPITALIZATION/MODERNIZATION	106626	121215	126991	88952	34595	35902	41329	Continuing	Continuing

A. Mission Description and Budget Item Justification: The UH-60 BLACK HAWK will serve as the Army's utility helicopter in the Future Force. It is used for air assault, general support, aeromedical evacuation (MEDEVAC), and command and control in active and reserve component theater, corps, division, and Table of Distribution and Allowances (TDA) units. The UH-60A entered service in fiscal year 1978 (FY78), and the newer model UH-60L in FY89. The Army continues to procure UH-60L helicopters today. The Army has established a recapitalization goal for its systems of maintaining the fleet's average age at the design half-life or less. The UH-60 was designed for a 20 year service life. The oldest UH-60As are now over 25 years old, and the average age of the UH-60A fleet is 21 years old. The increased operational tempo, coupled with the technological age of the basic airframe, components, and systems, is having an adverse impact on the operational readiness (OR) and operating and support (O&S) costs of the over 1500 aircraft UH-60 fleet. In addition, the UH-60A/L helicopters lack the necessary digital avionics architecture to meet current and future Army and Joint Service interoperability communication requirements. The Army has determined that an upgrade program is required to address these issues. An Operational Requirements Document (ORD) for recapitalization of the BLACK HAWK fleet was approved by the Joint Requirements Oversight Council (JROC) in March, 2001. The ORD describes an evolutionary, block approach to transform the utility helicopter force to one that is more deployable, responsive, and less expensive to operate. The UH-60M provides a common platform for the modernized air ambulance MEDEVAC mission equipment package (MEP). RDTE funds are required to develop, integrate, test and qualify the UH-60M configuration. FY05 funding reflects the initial efforts to move the UH-60M program to an Upgrade configuration which includes the Fly By Wire (FBW), Composite Tailcone, Full Authority Digital Engine Control (FADEC) and the Common Avionics Architecture System (CAAS), which is the common cockpit to be used by UH-60M, CH-47 and Special Operations. Incorporation of CAAS will minimize the future sustainment costs for these aircraft platforms. A successful UH-60M Upgrade IPR decision was obtained in January 06. Also in FY05, funds are included for incorporation of Integrated Vehicle Health Management System (IVHMS) on the UH-60M. FY05 funds continue UH-60M integration and testing. FY05 also funds the Integrated Mechanical Diagnostic - Health Monitoring System (IMD-HUMS) and Maintenance Analysis Safety and Training (MAST) demonstration programs and initiation of the Helicopter Autonomous Landing Systems (HALS).

FY06 Funds the continuation of the UH-60M Upgrade program, continuation of the Helicopter Autonomous Landing Systems (HALS) and continues funding of the UH-60M testing and integration efforts of the Baseline contract.

FY07 Funds the continuation of the Upgrade program. FY07 includes funds for the Army Component Improvement Program (ACIP).

FY08 and out include the on-going ACIP program and continues efforts for the development and test of the UH-60M Upgrade aircraft.

0203744A (504) BLACK HAWK RECAPITALIZATION/MODERNIZATION Item No. 159 Page 16 of 35

Exhibit R-2A

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Budget Item Justification

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

504

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE

PROJECT

0203744A - Aircraft Modifications/Product Improvement Program

Accomplishments/Planned Program						FY 2005	<u>F</u>	Y 2006	FY 2007
Continue airframe, avionics and powerplant development be Preliminary Design Review and Critical Design Review.	oased on finalize	d configuration	as a result of ai	irframe CDR. C	onduct System	1	9183	8987	2227
Software Development - includes failure modes and effects mission critical computer resources; update software requiresoftware design descriptions.							1892	820	583
Continue Producibility Engineering and Planning (PEP) as	well as manufac	cturing planning	and control.				2028	558	380
Prototype build and delivery to support Development Testi	ng (DT).					2	8140	12974	807
Testing (Conduct flight testing, EME testing and ground te	sting).					1-	4019	6239	4551
Preparation of training documentation for Logistics Demorand Test Data Collection Training Course.	nstration Familia	rization Course,	Government 7	Test Pilot Famili	arization Course		1321	401	86
Conduct training course to support test.	raining course to support test.						15	1738	0
Maintain Continuous Acquisition and Life Cycle Support (deliver Interface Control Documents (ICD's).	CALS)/Contract	tor Integrated Te	echnical Inform	nation Service (CITIS) and		456	104	22
Support Equipment							109	35	22
Helicopter Autonomous Landing System (HALS) - Develounit.	pment and deliv	ery of a comple	te unit; technic	al support; and	integration of the		2024	7000	0
IMD-HUMS demonstration program.						2	0368	0	0
UH-60M Upgrade Efforts						1-	4799	82359	110193
MAST Demonstration Program							2272	0	0
Aircraft Component Improvement Program (ACIP)							0	0	8120
Total						10	6626	121215	126991
B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 201	1 To Cor	npl Total Cost
A05002 BLACK HAWK (MYP)	506788	680853	740396	837467	1179414	1068689	92100	7 CO	NT CONT

C. Acquisition Strategy The UH-60 BLACK HAWK will serve as the Army's utility helicopter in the Future Force. The Army revised the acquisition strategy for the UH-60M

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit) BUDGET ACTIVITY 7 - Operational system development PE NUMBER AND TITLE PROJECT 0203744A - Aircraft Modifications/Product Improvement Program PROJECT 504

to procure new UH-60M helicopters in lieu of Recap/Upgrade. This program addresses current UH-60 fleet aging problems such as decreasing operational readiness (OR) and increasing O&S costs, including all top-ten cost drivers, and provides a common, modernized platform for the UH-60 utility and MEDEVAC fleet of the future. The program will be executed over four phases: pre-System Development/Demonstration Phase (FY00-01), System Development/Demonstration Phase (Baseline FY01-07) (Upgrade FY05-11), Production/Readiness Phase (FY05-25), and Operations and Sustainment Phase (FY06-FY45).

0203744A (504) BLACK HAWK RECAPITALIZATION/MODERNIZATION Item No. 159 Page 18 of 35 Exhibit R-2A
184 Budget Item Justification

February 2006 ARMY RDT&E COST ANALYSIS (R3) BUDGET ACTIVITY PE NUMBER AND TITLE PROJECT 0203744A - Aircraft Modifications/Product Improvement Program 7 - Operational system development 504 FY 2005 FY 2006 FY 2007 FY 2007 I. Product Development Performing Activity & Total FY 2005 FY 2006 Cost To Total Contract Target Method & Location PYs Cost Cost Award Cost Award Complete Cost Value of Award Cost Type Date Date Date Contract Design, Integration & Qualification SS/CPAF Sikorsky Aircraft Co 30 293153 51788 1-20 20652 1-20 2185 1-20 367778 Contract Moffitt Street Stratford. CT 06601 Development Support - Organic MIPR UH PMO/matrix 8746 5063 1-30 3748 1-30 631 1-30 18188 C/FP 11468 564 576 1-3Q 392 1-3Q 0 **Development Support - Contractor Support Contractors** 1-3Q 13000 IMD-HUMS Development Support MIPR Aviation Applied Tech 5471 1482 30 0 6953 Organic Directorate (AATD) Matrix IMD-HUMS Development Support - C/FP Goodrich, 100 Panton 27985 18886 0 0 30 46871 Road, Vergennes, Contractor Vermont 05491 MAST Development Support -MIPR'S 334 0 Other Government 1095 1Q 0 0 1429 Organic Agency Support MAST Development Support -MIPR Smith Industries Clear 4531 1177 20 0 0 5708 Water . FL1 Contractor UH-60M Upgrade Efforts - Organic MIPR 0 4844 40 18186 1-20 13576 1-20 22833 59439 UH-60M Upgrade Efforts -**CPAF** 9955 40 64173 96617 1-20 99327 270072 1-20 Contractor Army Component Improvement 0 0 0 922 6425 7347 1-20 Program (ACIP) - Organic Army Component Improvement 0 7198 1-20 50159 57357 Program (ACIP) - Contractor Internal Reprogramming - Payback 3413 0 0 0 3413 for FY03 HALS 2024 7000 30 0 9024 3Q Performance Support System - NG MIPR Other Government 1000 0 1000 (Apache) Agency Support Future Utility Upgrades TBS 22034 22034 96878 114335 121521 Subtotal: 356101 200778 889613

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

504

7 - Operational system development

0203744A - Aircraft Modifications/Product Improvement Program

Remarks: IMD-HUMS demonstration program was funded in FY02-05 and is separate from the UH-60M program.

MAST demonstration program was funded in FY04 and FY05 and is separate from the UH-60M and the HUMS programs.

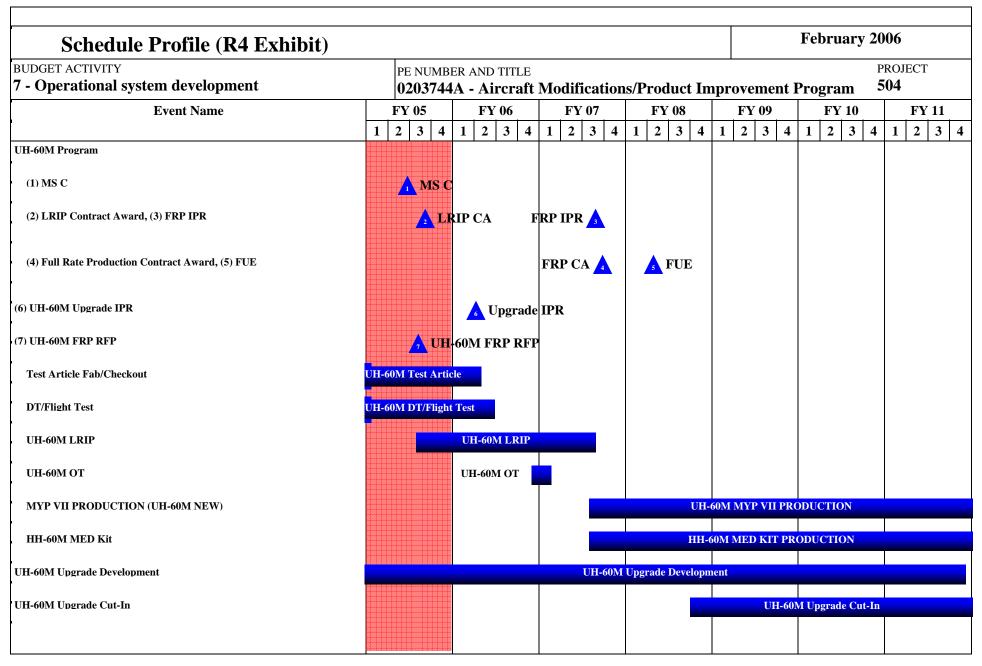
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Complete		Target Value of Contract
Cost Analysis Support	MIPR	AMCOM Matrix	521	125	1-3Q	127	1-3Q	130	1-3Q	0	903	0
Logistics Analysis Support - Organic	MIPR	AMCOM Matrix	0	287	1-3Q	293	1-3Q	224	1-3Q	0	804	0
Logistics Analysis Support - Support Contractor	MIPR	Support Contractor	0	502	1-3Q	512	1-3Q	294	1-3Q	0	1308	0
Subtota	al:		521	914		932		648		0	3015	0

III. Test And Evaluation	Contract	Performing Activity &	Total	FY 2005	FY 2005	FY 2006	FY 2006	FY 2007	FY 2007	Cost To	Total	Target
	Method &	Location	PYs Cost	Cost	Award	Cost	Award	Cost	Award	Complete	Cost	Value of
	Type				Date		Date		Date			Contract
Test Planning, Test and Evaluation	MIPR	Various Activities	6451	6229	1-3Q	3662	1-3Q	2742	1-3Q	0	19084	0
Test Planning, Test and Evaluation	MIPR	Various Activities	0	125	1-3Q	128	1-3Q	98	1-3Q	0	351	0
Subtota	ıl:		6451	6354		3790		2840		0	19435	0

IV. Management Services	Contract	Performing Activity &	Total	FY 2005	FY 2005	FY 2006	FY 2006	FY 2007	FY 2007	Cost To	Total	Target
	Method &	Location	PYs Cost	Cost	Award	Cost	Award	Cost	Award	Complete	Cost	Value of
	Type				Date		Date		Date			Contract
PM Support - Organic	MIPR	UH PMO/matrix	4681	975	1-4Q	942	1-4Q	1100	1-4Q	0	7698	0
PM Support - Contract	C/FP	O2K Contractor	1135	1505	1-3Q	1216	1-3Q	882	1-3Q	0	4738	0
SIBR/STTR			4383	0		0		0		0	4383	0
Subtota	Subtotal:			2480		2158		1982		0	16819	0

Item No. 159 Page 20 of 35 186

ARMY RDT&E COST ANA	LYSIS (R3)	'SIS (R3)						
BUDGET ACTIVITY - Operational system development	PE NUMBER AND TITLE 0203744A - Aircraft I	Modifications/Pro	duct Improveme	PROJECT 504				
Project Total Cost:	373272 106626	121215	126991	200778	928882			



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY
7 - Operational system development
PE NUMBER AND TITLE
PROJECT
0203744A - Aircraft Modifications/Product Improvement Program
504

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
IMD-HUMS: demonstration program	1-4Q	1-3Q					
Test article delivery for testing (UH-60M)	2Q	1-2Q					
OT preparation and conduct		1-4Q	1Q				
HALS	3-4Q	1-4Q					
Closeout of Integration and Qualification			2Q				
Milestone C (UH-60M)	3Q						
LRIP Lot 1 Contract Award (UH-60M)	2Q						
LRIP Lot 2 Contract Award (UH-60M)		3Q					
UH-60M Upgrade IPR		2Q					
Full Rate Production IPR (UH-60M)			3Q				
First Unit Equipped (FUE) (UH-60M)				2Q			
Mast Demonstration Program	1-4Q						

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	0203744A - Aircraft Modifications/Product Improvement Program	D17

	COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
D17	APACHE BLOCK III	57000	108157	123405	123616	189546	126018	106944	Continuing	834686

A. Mission Description and Budget Item Justification: Project D17 funding is for the non-recurring engineering (NRE), development, and testing work associated with the planned remanufacture of 597 Apache aircraft into Block III-configured aircraft (deliveries to begin in FY10). The Block III program will provide Network-Centric capabilities for 597 Apache Longbows at a critical time as the Army transitions from the current force to the Future Force (FF). Block III capability enhancements are achieved via planned technology insertions such as: FF Connectivity-Seamless Global Information Grid Communications (Interim Communications Suite embedded in an Open Systems Architecture (OSA)); extended range sensing; increased survivability; Cognitive Decision Aiding System (CDAS), which speeds critical battle tasks; improved aircraft performance: reduced Operations and Support (O&S) cost and logistics footprint, and increased aircraft readiness. As a result of United States Army transformation, emerging FF organizational and operational structure, lessons learned from OEF and OIF, and a changing operational environment, the Modernized Apache is integral to achieving air-ground synergy during FF operations. The Block III Modernized Apache fleet, with its upgraded system architecture, will enable FF compatibility and enhanced war-fighting capability.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
Operational Assessments	307	650	662
Joint Venture NRE Contracts	24000	25000	29000
Boeing NRE Contracts	31190	72000	75600
NRE Program Support Activities	82	4844	12415
Management Services	1421	5663	5728
Total	57000	108157	123405

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
APA, SSN 6670, SSN 6605;	919840	699849	797516	648826	630839	488357	472829	CONT	CONT
RDTE, 0203744A, D12	1629	0	0	0	0	0	0	0	1629

<u>C. Acquisition Strategy</u> The NRE for FY05 - FY09 will encompass subsystem integration resulting in a Critical Design Review (CDR) and will utilize existing test aircraft, incorporate the technical insertions, and initiate appropriate qualification and flight testing. The LRIP effort will include a total quantity of 59 aircraft which will take 18 months for delivery and therefore will be two separate contractual actions (FY 09 & FY 10). These 59 LRIP aircraft are to be used for operational testing, FUE and training base fielding.

0203744A (D17) APACHE BLOCK III Item No. 159 Page 24 of 35

Exhibit R-2A Budget Item Justification

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit) BUDGET ACTIVITY 7 - Operational system development PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program PROJECT 017

In FY 11, a contract for Apache Block III Lot 3 (39 aircraft), initiating full rate production, will be awarded with options for Lot 4 (60 aircraft), Lot 5 (60 aircraft) and Lot 6 (60 aircraft), and continuing through to a total of 284 aircraft.

Interim Contractor Support is anticipated throughout LRIP to Apache Block III Lot 6 deliveries. Training device concurrency will be maintained with each technical insertion. Advanced material procurement is planned for award in FY 08 to support the LRIP deliveries in FY 10 - FY 11. All NRE efforts will be awarded as Cost Reimbursable. The LRIP and production efforts will be awarded as Firm Fixed Price (FFP) and include the Advanced Procurement requirements.

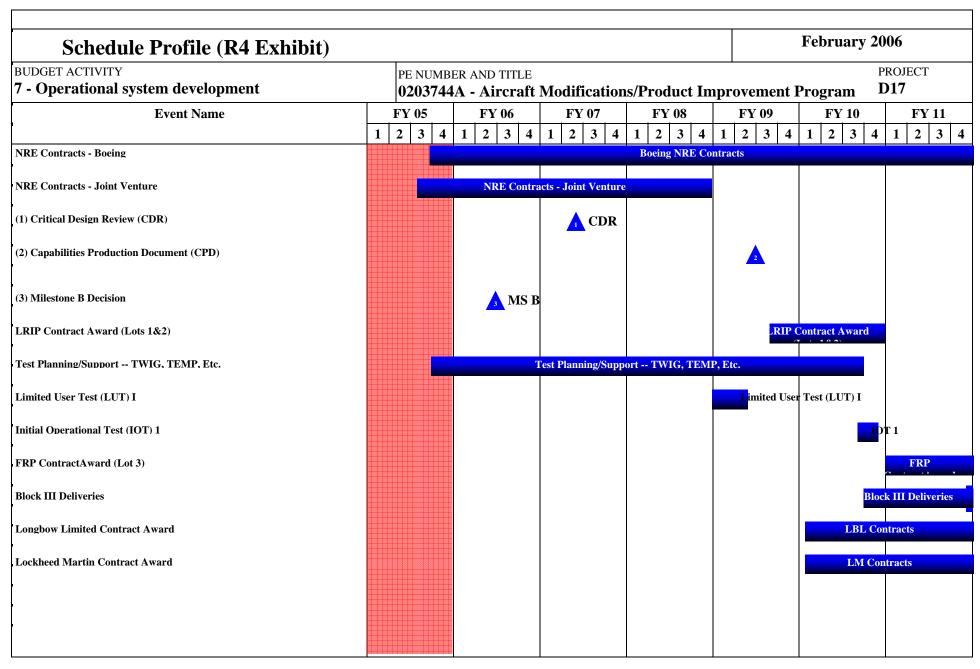
As the acquisition strategy and plan unfolds Multi-Year authority may be requested for the out-years, FY 11 and beyond.

0203744A (D17) Item No. 159 Page 25 of 35 Exhibit R-2A APACHE BLOCK III Budget Item Justification

	E COST	Γ ANALYSIS	(R3)							February	y 2006		
BUDGET ACTIVITY 7 - Operational system dev	velopment		PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Pro								PROJECT Ogram D17		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Joint Venture Contracts	Cost Reimb	Orlando, FL	0	24000	4Q	25000	1-2Q	29000	1-2Q	22000	100000	100000	
Boeing Contracts	Cost Reimb	Mesa, AZ	0	31190	3Q	72000	1-2Q	75600	1-2Q	307050	485840	485840	
Longbow Limited Contracts	Cost Reimb	Orlando, FL	0	0		0		0		61870	61870	61870	
Lockheed Martin Contracts	Cost Reimb	Orlando, FL	0	0		0		0		16930	16930	16930	
Subtotal:			0	55190		97000		104600		407850	664640	664640	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	•	Total Cost	Target Value of Contract	
	• • •											Contract	
Block III NDE Support													
Block III NRE Support	Various	Various Activities	0	82 82	4Q	4844 4844	1-3Q	12415 12415	1-3Q	38224 38224	55566 55566	55566 55566	
Subtota	II.	Various Activities	0	82 82	4Q	4844	1-3Q	12415	1-3Q	38224 38224	55566 55566	55566 55566	
	II.	Performing Activity & Location			FY 2005 Award Date		FY 2006 Award Date		FY 2007 Award Date	38224 Cost To		55566 Target	
Subtota	Contract Method & Type MIPR,	Performing Activity &	Total	82 FY 2005	FY 2005 Award	4844 FY 2006	FY 2006 Award	12415 FY 2007	FY 2007 Award	38224 Cost To	55566 Total	Target Value of	
Subtota III. Test And Evaluation Operational Assessments, Test Integration Working Group (TWIG),	Contract Method & Type MIPR, Various	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	4844 FY 2006 Cost	FY 2006 Award Date	12415 FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract	
Subtota III. Test And Evaluation Operational Assessments, Test Integration Working Group (TWIG), TEMP, etc.	Contract Method & Type MIPR, Various	Performing Activity & Location	Total PYs Cost	FY 2005 Cost 307	FY 2005 Award Date	4844 FY 2006 Cost 650	FY 2006 Award Date	12415 FY 2007 Cost 662	FY 2007 Award Date	Cost To Complete 78275 78275 Cost To	55566 Total Cost 79894	Target Value of Contract 79894	

0203744A (D17) APACHE BLOCK III Item No. 159 Page 26 of 35 192 Exhibit R-3 ARMY RDT&E COST ANALYSIS

ARMY	RDT&E	COST ANALYS	IS (R3)				February	2006		
BUDGET ACTIVITY 7 - Operational sy			PE NUMBE	R AND TITLE A - Aircraft	Modifications/Pro	oduct Improveme	nt Program	PROJEC D17	PROJECT D17	
Travel, etc.)		Support, O2K								
	Subtotal:		0	1421	5663	5728	21774	34586	3458	
				1	<u> </u>					
Proj	ect Total Cost:		0	57000	108157	123405	546123	834686	83468	



0203744A (D17) APACHE BLOCK III Item No. 159 Page 28 of 35

Exhibit R-4 Budget Item Justification

Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE

0203744A - Aircraft Modifications/Product Improvement Program

PROJECT **D17**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
NRE Contract Award Boeing	3-4Q	1-2Q	1-2Q	1-2Q	1-2Q	1-2Q	1-2Q
Radar Electronics Unit (REU) NRE Contract Award Joint Venture	4Q	1-2Q	1-2Q	1-2Q			
Longbow Limited Contract Award						1-2Q	1-3Q
Lockheed Martin Contract Award						1-2Q	1-2Q
Critical Design Review (CDR)			2-3Q				
Capabilities Production Document (CPD)					1-2Q		
JROC Approval/MS C					2Q		
Milestone C					2-3Q		
TWIG, TEMP, Other Testing Activities		1-4Q	1-4Q				
LRIP Contract Awards [Lots 1 and 2]					3-4Q	1Q	
Limited User Test [LUT]					1-2Q		
Operational Assessment I [OAI]						2-3Q	
FRP Contract Award (Lot 3)							1Q
Initial Deliveries [LRIP, Lot 1]						4Q	

0203744A (D17) APACHE BLOCK III Item No. 159 Page 29 of 35 195

Termination Liability Funding For Major		February 2006								
BUDGET ACTIVITY 7 - Operational system development PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Program D17										
Funding in \$000										
Program		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011		
D17, Apache Block III		5700	11000	12000	12000	19000	12000	11000		
Total Termination Liability Funding:		5700	11000	12000	12000	19000	12000	11000		

February 2006 **ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)** PE NUMBER AND TITLE BUDGET ACTIVITY **PROJECT** 7 - Operational system development 0203744A - Aircraft Modifications/Product Improvement Program **D18** FY 2010 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2011 Cost to Total Cost COST (In Thousands) Estimate Estimate Estimate Estimate Estimate Estimate Estimate Complete D18 UTILITY FW CARGO AIRCRAFT 0 5573 6586 3041 15200

A. Mission Description and Budget Item Justification: This Project supports Test and Evaluation of the Future Cargo Aircraft. The RDT&E funds are to support statutorily-mandated Live Fire Test and Evaluation (LFT&E) including survivability/susceptabilty assessment and Initial Operational Test and Evaluation (IOT&E). The LFT&E will involve system, subsystem- and component-level live fire testing. Additionally, survivability/susceptabilty characterization assessments of nuclear, biological, chemical, and electromagnetic capabilities will be performed.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
IOT&E Test Plan	0	0	300
IOT&E Test Material	0	0	573
LFT&E Test Plan	0	0	300
LFT&E Test Material	0	0	2850
LFT&E Test Execution	0	0	800
Production Qualification Test (PQT)	0	0	750
Total	0	0	5573

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
A11000 UTILITY F/W CARGO AIRCRAFT	0	4860	109154	157043	258622	303824	427737	0	1261240

Comment: The Fixed Wing Cargo Aircraft program was established to correct operational shortfalls to cargo mission requirements, provide commonality with other aviation platforms, and replace multiple retiring aircraft systems. This aircraft addresses these shortfalls, and replaces retiring C-26 and C-23 fleets, and selected C-12s.

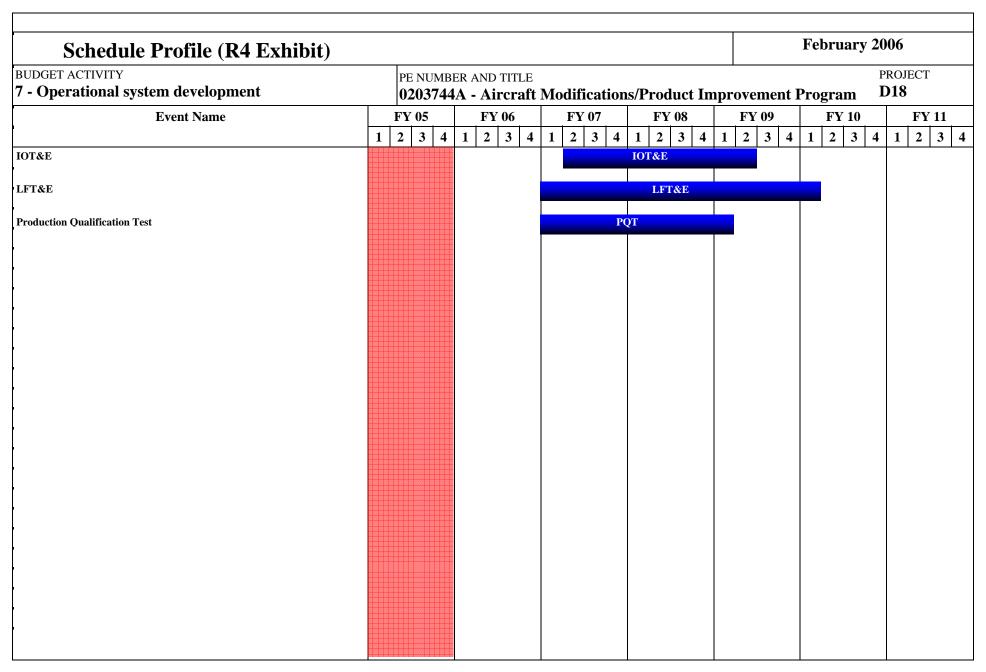
<u>C. Acquisition Strategy</u> Future Cargo Aircraft's (FCA's) acquisition strategy is based on leveraging the commercial market. The intent is to procure a previously developed and fielded, low-risk, commercially available aircraft and Mission Equipment Package (MEP). Commercial aircraft are available that will meet the Army's immediate requirements. Additionally, these aircraft possess open architecture systems that will support technology insertions as improvements become available.

0203744A (D18) UTILITY FW CARGO AIRCRAFT Item No. 159 Page 31 of 35 Exhibit R-2A
197 Budget Item Justification

ARMY RDT	LE COST	Γ ANALYSIS	(R3)					February	2006			
BUDGET ACTIVITY			PE NUMBI						PROJE(D18	СТ		
7 - Operational system (development		0203744	0203744A - Aircraft Modifications/Product Improvement Program								
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost			Total Cost	Target Value of Contract
Sub	Subtotal:		0									
		T	T									
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Sub	total:	1	0									
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
	Method & Type	Location			Award	Cost	Award	Cost	Award Date		Cost	Value of
IOT&E Test Plan	MIPR	Operational Test Command (OTC), Ft. Hood, TX				0		300		0	300	
IOT&E Test Material	C/FFP	TBD	0	0		0		573	`	0	573	573
IOT&E Test Execution	MIPR	Operational Test Command (OTC), Ft. Hood, TX	0	0		0		0		500	500	C
IOT&E Test Reports	MIPR	Operational Test Command (OTC), Ft. Hood, TX	0	0		0		0		300	300	C
LFT&E Test Plan	MIPR	Army Research Lab, Aberdeen Proving Ground, MD	0	0		0		300	1Q	0	300	C
LFT&E Test Material	C/FFP	TBD	0	0		0		2850	1Q	0	2850	2850
LFT&E Test Execution	MIPR	Army Research Lab, Aberdeen Proving Ground, MD	0	0		0		800	2Q	7450	8250	C

0203744A (D18) UTILITY FW CARGO AIRCRAFT Item No. 159 Page 32 of 35 198 Exhibit R-3 ARMY RDT&E COST ANALYSIS

BUDGET ACTIVITY 7 - Operational system development				PE NUMBER AND TITLE 0203744A - Aircraft Modifications/Product Improvement Prog							PROJECT D18		
LFT&E Modeling & Simulation	MIPR	Army Research Lab, Aberdeen Proving Ground, MD	0	0		0		0		500	500		
Production Qualification Test	MIPR	Naval Air Systems Command , Patuxent River NAS, MD	0	0		0		750	1Q	877	1627		
Subt	otal:		0	0		0		5573		9627	15200	342	
IV. Management Services	Contract Method &	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award	FY 2006 Cost	Award	FY 2007 Cost	FY 2007 Award		Total Cost	Targo Value o	
Subt	Type otal:		0		Date		Date		Date			Contrac	



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	0203744A - Aircraft Modifications/Product Improvement Program	D18

	FF7.2005	TT 2006	TT 2008	EW 2000	EW 2000	EV 2010	EX. 2011
Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
IOT&E Test Plan			2-4Q				
IOT&E Test Material			2-4Q				
IOT&E Test Execution				1-4Q			
IOT&E Test Reports					1-2Q		
LFT&E Test Plan			1-3Q				
LFT&E Test Material			1-3Q				
LFT&E Test Execution			2-4Q	1-4Q	1-2Q		
LFT&E Modeling & Simulation					2-4Q	1Q	
Production Qualification Test (PQT)			1-4Q	1-4Q	1Q		