ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0203744A - Aircraft Modifications/Product Improvement Programs**

	COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	327331	459424	209401	Continuing	Continuing
028	Aerial Common Sensor (ACS) (MIP)	12581	170960	74	Continuing	Continuing
430	IMPR CARGO HELICOPTER	21617	13861	10799	Continuing	Continuing
504	BLACK HAWK RECAPITALIZATION/MODERNIZATION	92975	35542	33467	Continuing	Continuing
D12	LONGBOW APACHE OPERATIONAL SYSTEMS DEVELOP	8478	38339	13284		60101
D17	APACHE BLOCK III	185366	197716	150793	Continuing	Continuing
D18	UTILITY FW CARGO AIRCRAFT	6314	3006	984		10304

A. Mission Description and Budget Item Justification: FY 2010/2011 budget request funds aviation 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.

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7 - Operational system development	**0203744A - Aircraft Modifications/Product Improvement Programs**

B. Program Change Summary	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	328514	452787	428195
Current BES/President's Budget (FY 2010)	327331	459424	209401
Total Adjustments	-1183	6637	-218794
Congressional Program Reductions		-1513	
Congressional Rescissions			
Congressional Increases		8150	
Reprogrammings	7916		
SBIR/STTR Transfer	-9099		
Adjustments to Budget Years			-218794

Change Summary Explanation: Funding - FY 2010: Funding for Aerial Common Sensor was moved to a separate MIP program element.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

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

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
028 Aerial Common Sensor (ACS) (MIP)	12581	170960	74	Continuing	Continuing

A. Mission Description and Budget Item Justification: (U) Aerial Common Sensor (ACS) is an Airborne Reconnaissance, Surveillance and Target Acquisition (RSTA)/Intelligence, Surveillance, and Reconnaissance (ISR) capability directly supporting Battlespace Awareness for tactical commanders in irregular warfare scenarios. Specifically, ACS will provide real-time, persistent, precision, networked, wide-area, high-capacity, multi-sensor intelligence collection capability throughout the joint battlespace. ACS will quickly produce actionable intelligence that provides commanders and soldiers critical shared situational understanding delivered with the speed, accuracy, and timeliness necessary to conduct successful and when necessary, lethal joint operations. ACS will support focused Intelligence Preparation of the Battlespace (IPB), Indications and Warnings (I&W), precision targeting, battle damage assessment (BDA), Situational Development, battle command, and Force Protection. Each of these will be synchronized with operations in order to develop and maintain situational awareness and reduce clutter in the maneuver environment. ACS will be a manned, fixed-wing aircraft capable of worldwide deployment carrying multiple sensor payloads and intelligence processing, appropriate air/ground/satellite data links, and air crew (i.e., pilots and intelligence systems operations). The RSTA/ISR payload will consist of a suite of modular, scaleable Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), Ground Moving Target Indicator (GMTI) and Measurement and Signature Intelligence (MASINT) sensors and processors that can operate alone or simultaneously in combination with each other (e.g., automated cross-cueing). The intelligence processing suite onboard ACS and in the ground station, provided by the Distributed Common Ground System-Army (DCGS-A), will integrate the products from all ACS Sensor payloads as well as the sensor feeds from other joint force sensors, including manned/unmanned (MUM) teaming with Army Unmanned Aircraft Systems (UAS), to provide a correlated near-real-time picture of the tactical operational environment with the greatest degree of granularity possible. Onboard communications will consist of a robust set of line-of-sight (LOS) and satellite communications (SATCOM) datalinks that will enable direct linkage to Brigade Combat Teams, Manned-Unmanned teaming with Army UAS, wideband/worldwide connectivity to DCGS and the Global Information Grid, and interoperability with other Army, Joint and National RSTA/ISR assets. ACS will be a critical and integral component of the future force.

The National Security Agency's Military Intelligence Program (MIP) provides funding to support enhanced SIGINT capabilities.

FY10 and out years funded with PE 0307207A - Aerial Common Sensor (ACS) Project 024

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Modern Signal Sensor Prototype, Datalink Risk Reduction efforts, EMI/EMC Studies, GRCS Capabilities Growth Study/ICD	4522		
Datalink and other Risk Reduction efforts, GRCS ICD & Support, Modern Signal Sensor Prototype, Procure CHALS GFE, GRCS ITADS, and MR-TCDL GFE		29337	
Mission Thread Analysis, Systems Integration Analysis, Sensor Data Server Software Development	1600	2900	
Program Office, Matrix Engineering and Test support for the AC Sensors, Payload RFI, RFP/Source Selection activities/MS A Documentation	6459	13644	
Start of Technology Development Phase		125079	

Total	12581	170960	

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
ACS NSA MIP	3851	3690	2094	Continuing	Continuing
CHALS NSA MIP	4071	4169	1777	Continuing	Continuing
GRCS NSA MIP	6588	6713	2885	Continuing	Continuing

Comment: FY10 National Security Agency Military Intelligence Program (MIP) funding provides for the development of ACS core SIGINT technologies.

C. Acquisition Strategy The Aerial Common Sensor (ACS) Capabilities Development Document (CDD) was approved by the Joint Requirements Oversight Council (JROC) on 25 November 2008. ACS development will be achieved on an incremental basis. A competitive award of two (2) Cost Plus Fixed Fee (CPFF) contracts is planned for the Increment 1 Technology Development (TD) phase in FY09. The TD phase will reduce risk through demonstration of system prototype flight demonstrations. Following the TD phase a single contractor will continue through EMD. As the development program evolves, future competitive opportunities will be assessed.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
028

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Multi-Role-Tactical Command Data Link Development and Delivery	SS-CPAF	L-3 Communications, Salt Lake City, UT	11459	503	3Q	8600	3Q				20562	4590
MR-TCDL Advanced Technology Program	SS	Northrop Grumman Space & Mission Systems Corp Redondo Beach, CA				7789	2Q				7789	
EMI/EMC Studies	FF	Various Ktrs		2099	4Q						2099	
Risk Reduction/X-MIDAS V25. B-Kits		Zeta				1195	3Q				1195	
GRCS Capabilities Growth Study/ICD/Support	T&M	Northrop Grumman, McClellan, CA		320	1Q	1300	4Q				1620	
Advance Quickfix Settlement Costs		Boeing, Sunnyvale, CA				553	3Q				553	
GRCS ITADS	MIPRS/various contracts					5100	1-3Q				5100	
Modern Signals Sensor Prototype	SS-CPFF	Radix, Mountain View, CA	12501	1600	2-3Q	800	3-4Q				14901	
CHALS Enhancement Development	SS-CPFF	Lockheed Martin, Owego, NY	14063			4000	3Q				18063	
Sentinel UAV Phase II (ARL)			986								986	
Increment 1 TD contacts	FF	TBD				125079	4Q				125079	
Subtotal:			39009	4522		154416					197947	4590

Remarks: FY10 and out years funded with PE 0307207A - Aerial Common Sensor (ACS) Project 024

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Thread Analysis for ACS Design CONOPS; Systems Integration Analysis	IDA	VA	1169	1600	2Q	900	2-3Q				3669	

ARMY RDT&E COST ANALYSIS (R3)

May 2009

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

Sensor Data Server Software Development	MIPR/TBD	I2WD, Ft. Monmouth				2000	4Q				2000	
Subtotal:			1169	1600		2900					5669	

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Test Support	MIPR/CPFF	Gov't/Kr Various	3820	328	1-2Q	65	1-2Q			Cont.	Cont.	Cont.
Subtotal:			3820	328		65				Cont.	Cont.	Cont.

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
PMO Staff/travel/O/H expenses	In-House	PM, AC Sensors; Ft. Monmouth NJ	28381	773	1-4Q	2117	1-4Q			Cont.	Cont.	Cont.
Program SETA Support	C-T&M	CACI /NJ/DC	11921	810	1-2Q	1361	1-2Q			Cont.	Cont.	Cont.
SETA Mgmt Support	Kr; Various	Multiple	9819	950	1-3Q	3210	1-3Q			Cont.	Cont.	Cont.
Eng Matrix Support	Kr; various	Multiple	13166	1201	1-2Q	2140	1-3Q			Cont.	Cont.	Cont.
Govt Matrix Support	MIPR	Ft. Monmouth, NJ	6782	546	1-2Q	2465	1-2Q			Cont.	Cont.	Cont.
Matrix Support	MIPR/CPFF	Multiple	5213	1851	1-2Q	2286	1-2Q			Cont.	Cont.	
Subtotal:			75282	6131		13579				Cont.	Cont.	Cont.

Project Total Cost:	**119280**	**12581**		**170960**				**Cont.**	**Cont.**	**Cont.**

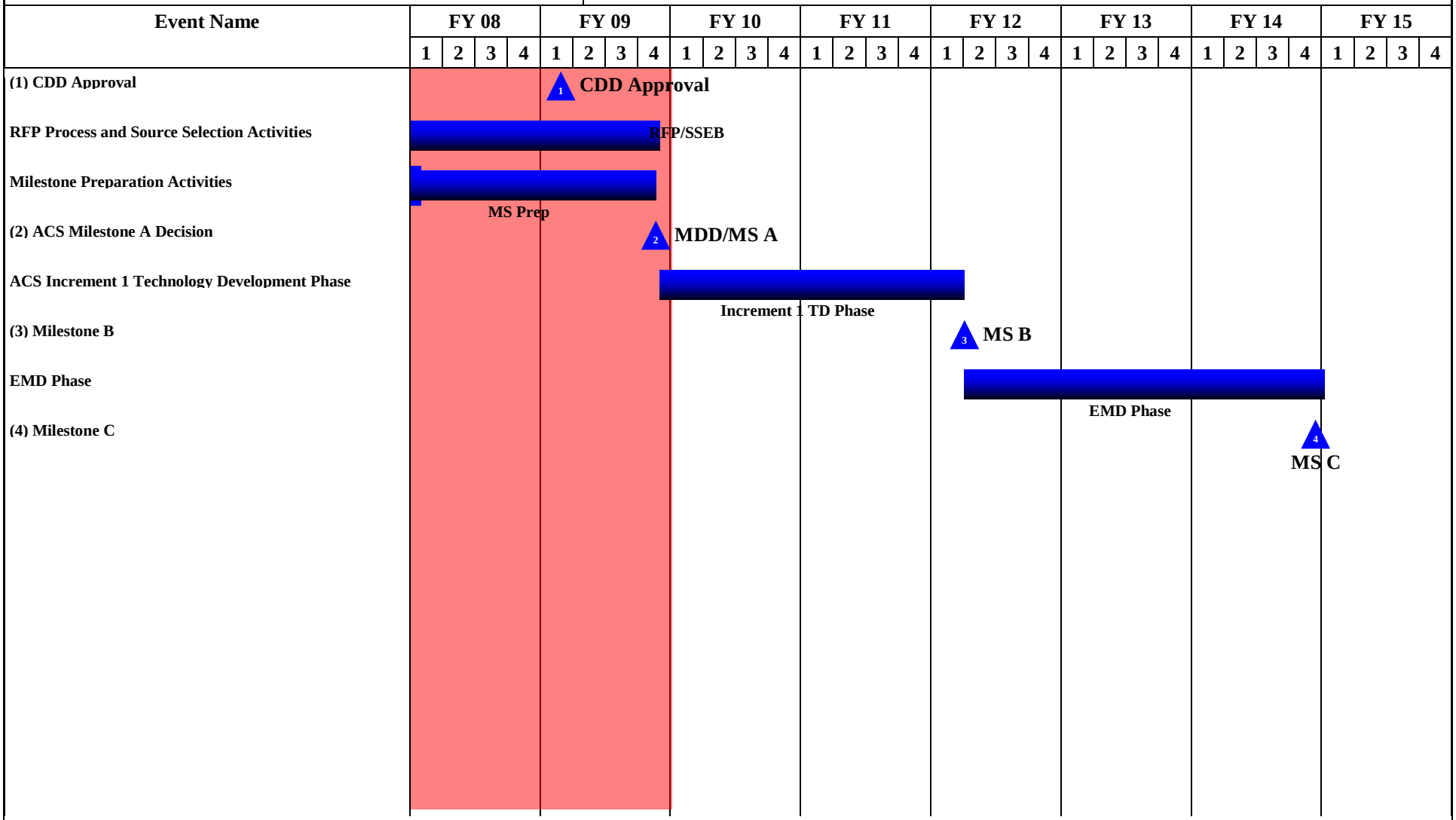
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
028



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
028

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
CDD Approval		1Q						
RFP Process and Source Selection Activities	1Q - 4Q	1Q - 4Q						
Milestone Preparation Activities	1Q - 4Q	1Q - 4Q						
ACS Milestone A Decision		4Q						
ACS Increment 1 Technology Development Phase		4Q	1Q - 4Q	1Q - 4Q	1Q			
Milestone B					1Q			
EMD Phase					1Q - 4Q	1Q - 4Q	1Q - 4Q	
Milestone C							4Q	

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0203744A - Aircraft Modifications/Product Improvement Programs**	**430**

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
430 IMPR CARGO HELICOPTER	21617	13861	10799	Continuing	Continuing

A. Mission Description and Budget Item Justification: 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 CH-47 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 will provide future growth potential to meet 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 CH-47 program funds the developmental improvements to the T55-GA-714A engines which includes a redesigned N1 Drive Train and a new torque system and the Airframe Component Improvement Program that includes development of new Rotor Blades that will result in significant performance improvement for the Chinook such as gaining an additional 1500 lbs of lift, improving erosion protection, and reducing retreating blade stall. Congressional plus-up in FY08 is for the Health and Usage Monitoring System (HUMS).

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Continue in-house and Program Management Administration	1080	489	548
714 Engine Component Improvement Program	4380	3955	6649
Airframe Component Improvement Program	6157	5829	3602
Health and Usage Monitoring (HUMS)	10000	3200	
Small Business Innovative Research/Small Business Technology Transfer Programs (SBIR/STTR)		388	
Total	21617	13861	10799

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
APA, SSN AA0252, CH-47 CARGO HELICOPTER MODS (MYP) (Including Adv Proc and Initial Spares)	9874958	720493	82363	6622220	17675959
APA, SSN AA05105000, CH-47 SLEP			352300		3110400
APA, SSN A05008, CH-47 CARGO HELICOPTER NEW BUILD (Including Adv Proc)	189600	442211	567614	155000	3317749

Comment:

C. Acquisition Strategy The CH-47F program replaces one for one, the aging CH-47D aircraft by FY2020, incorporates a new machined airframe, and includes a new Common Avionics Architecture System (CAAS) cockpit with digital communication/navigation capability allowing improved interoperability on the digital battlefield. The CH-47F program includes recapitalization of key dynamic components, bringing them to a near zero time.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
430

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
EMD	CPIF	Various	117221								117221	117098
TOCR	CPIF	Various	1600								1600	1600
Low Maintenance Rotor Hub	CPIF	Boeing	7685								7685	
SBIR/STTR			814		1Q	388	1Q				1202	
Technical Support	CPFF	Various	10158								10158	
714 Engine Component Improvement Program	CPFF	Various	18675	4380	1-2Q	3955	1-2Q	6649	1-2Q		33659	
Airframe Component Improvement Program			3861	6157	2Q	5829	2Q	3602	1-2Q		23042	
Health and Usage Monitoring (HUMS)			63000	10000	3-4Q	3200					76200	
Subtotal:			223014	20537		13372		10251			270767	118698

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
PMO/OGA	Reimbursable	Various government	14849	1080	2-3Q	489	2-3Q	548	2-3Q		17469	
Subtotal:			14849	1080		489		548			17469	

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
DT/OT	Reimbursable	Various government	25257								20507	
Live Fire Test & Eval	Reimbursable	Contract/Govt	6365								6365	
Live Fire Test & Eval	Contract		50								50	

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0203744A - Aircraft Modifications/Product Improvement Programs**	**430**

Test Analysis	Reimbursable	Various Government	1500								1500	
Subtotal:			33172								28422	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
CAMBER/Westar	SS/FP	Huntsville, AL	3901								3901	3901
Subtotal:			3901								3901	3901
Project Total Cost:			**274936**	**21617**		**13861**		**10799**			**320559**	**122599**

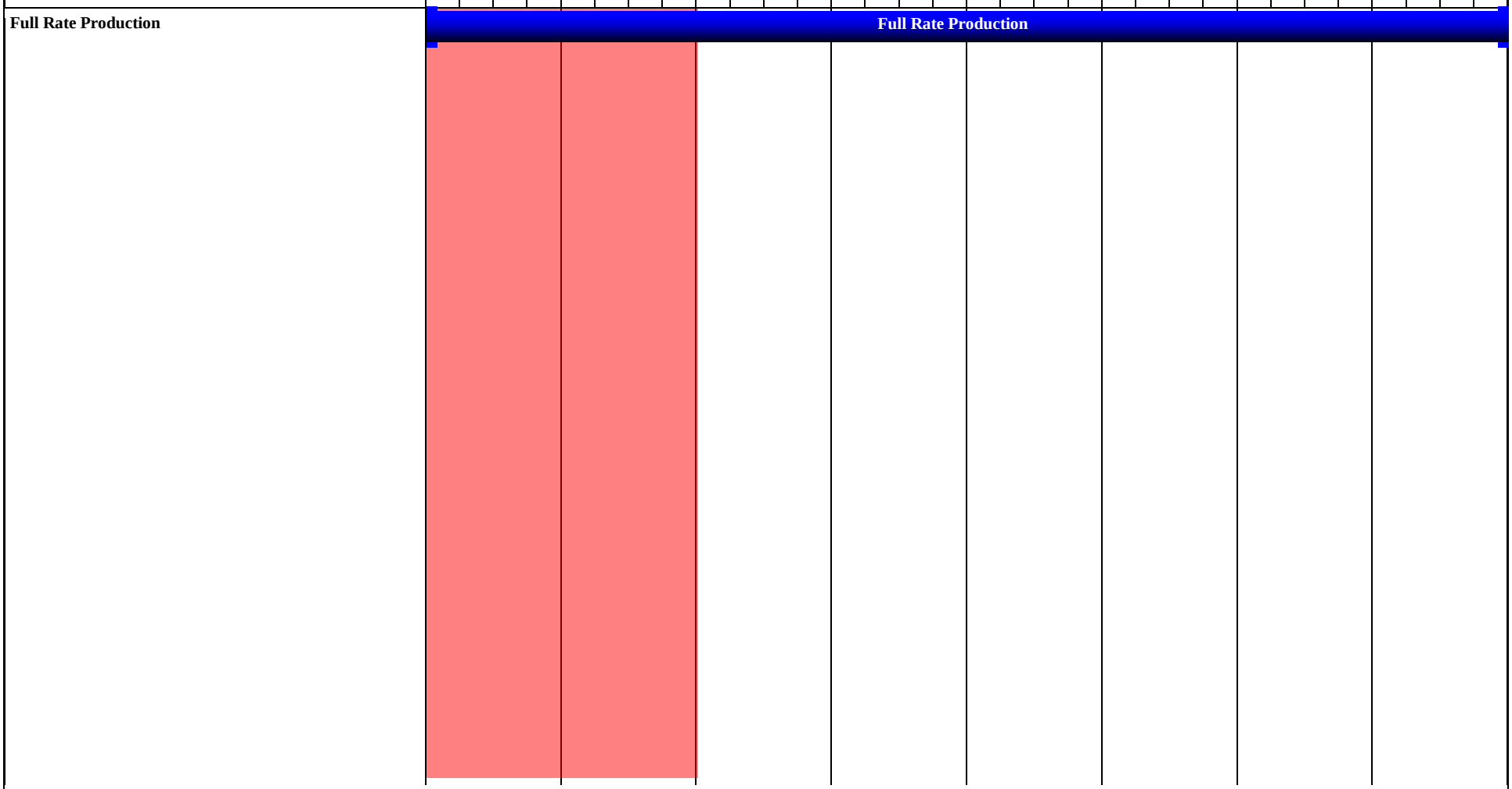
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
430



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
430

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Long Lead (Lot 1)								
LRIP Decision								
LRIP Lot 1 Contract Award								
Low Rate Initial Production								
LRIP Lot 2 RFP								
LRIP Lot #2 Contract Award								
Full Rate Production RFP								
IOT&E Phase I								
MS III/FRP								
Full Rate Production	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q
IOT&E Phase II								
FUE								
Milestone III								
Full Rate Pdn								
Initial Oper Test & Eval (IOT&E) Phase II								

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

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

COST (In Thousands)		FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
504	BLACK HAWK RECAPITALIZATION/MODERNIZATION	92975	35542	33467	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's last procurement of UH-60L helicopters was FY06. 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. A revised ORD was signed by the JROC on July 24, 2006 updating key performance parameters for survivability and force protection. 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 funded 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 2006. On May 18, 2007, the Office of the Secretary of Defense (OSD) Overarching Integrated Product Team (OIPT) report recommended approval for the UH-60M program to enter Full Rate Production (FRP) and approved the Army request for advanced procurement for seven UH-60M Upgrade aircraft and recommended a paper Defense Acquisition Board (DAB). On June 26, 2007 the Black Hawk Full Rate Production (FRP) Acquisition Decision Memorandum (ADM) was signed. This newly approved ADM authorizes entry into FRP for the Black Hawk Upgrade Program to include both the UH-60M and HH-60M baseline aircraft. The ADM also provides for FY08 advanced procurement for long lead items to support the initial cut-in aircraft for the UH/HH-60M Upgrade effort.

FY08 includes the on-going FADEC Development program and continues efforts for the development and test of the UH-60M Upgrade aircraft.

FY09 funds on-going development of the FADEC program and continues efforts for the development and test of the UH-60M Upgrade aircraft.

FY10 funds continues the development and testing of the UH-60M Upgrade program.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Continue airframe, avionics and powerplant development based on finalized configuration as a result of airframe CDR. Conduct System Preliminary Design Review and Critical Design Review.	24666	9545	9573
Software Development - includes failure modes and effects criticality analysis; software design descriptions; qualification testing of mission critical computer resources; update software requirements specifications and multiplex interface control documents; and prepare software design descriptions.	17080	5600	7978
Continue Producibility Engineering and Planning (PEP) as well as manufacturing planning and control.	4752	1797	1359
Prototype build and delivery to support Development Testing (DT).	3454	3390	
Testing (Conduct flight testing, EME testing and ground testing).	21712	7899	12318
Preparation of training documentation for Logistics Demonstration Familiarization Course, Government Test Pilot Familiarization Course and Test Data Collection Training Course.	3169	1135	809
Conduct training course to support test.		1029	1164
Maintain Continuous Acquisition and Life Cycle Support (CALS)/Contractor Integrated Technical Information Service (CITIS) and deliver Interface Control Documents (ICD's).	807	286	174
Support Equipment	144	141	92
Full Authority Digital Engine Control (FADEC)	8791	1974	
Operator Situational Awareness System - MEDEVAC	2000	1750	
Helicopter Autonomous Landing System (HALS)	4000		
Aircraft Component Remediation	2400		
Improved Turbine Engine Program (ITEP) Engine Development and Qualification			
Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)		996	
Total	92975	35542	33467

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
A05002 BLACK HAWK (MYP)	1354567	1142889	1431454	Continuing	Continuing

Comment: A05002 BLACK HAWK (MYP) funds in FY09 and FY10 include supplemental funding. (FY09 - $81.4 million and FY10 - $74.34 million)

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 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 Operations and Sustainment 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 (FY05-26), and Operations and Sustainment Phase (FY06-FY45).

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ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
504

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Design, Integration & Qualification Contract	SS/CPAF	Sikorsky Aircraft Co 6900 Main Street Stratford, CT 06601	364215								364215	
UH-60M Upgrade Pre-Planned Product Improvement Contract	SS/CPAF	Sikorsky Aircraft Co 6900 Main Street Stratford, CT 06601	178068	68965	1-2Q	22680	1-2Q	24847	1-2Q		294560	
Development Support - Organic	MIPR	UH PMO/matrix	21513	529	1-3Q	921	1-3Q	324	1-3Q		23616	
Development Support - Contractor	C/FP	Support Contractors	15739	1586	1-3Q	1475	1-3Q	1410	1-3Q		21182	
IMD-HUMS Development Support - Organic	MIPR	Aviation Applied Tech Directorate (AATD) Matrix	6953								6953	
IMD-HUMS Development Support - Contractor	C/FP	Goodrich, 100 Panton Road, Vergennes, Vermont 05491	46862								46862	
MAST Development Support - Organic	MIPR'S	Other Government Agency Support	1429								1429	
MAST Development Support - Contractor	MIPR	Smith Industries Clear Water , FLl	5708								5708	
Full Authority Digital Engine Control (FADEC) Development - Organic			922	998	1-2Q	224	1-2Q				2144	
Full Authority Digital Engine Control (FADEC) Development - Contractor			7198	7793	1-2Q	1750	1-2Q				16741	
Internal Reprogramming - Payback for FY03			3413								3413	
HALS			8675	4000	2-4Q						12675	
Performance Support System - NG (Apache)	MIPR	Other Government Agency Support	1000								1000	
Transfer to Apache			3000								3000	

ARMY RDT&E COST ANALYSIS (R3)

May 2009

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

Improved Turbine Engine Program (ITEP) Engine Development and Qualification	C	TBD									90628	
Operator Situational Awareness System - MEDEVAC				2000	2-4Q	1750	2-4Q				3750	
Aircraft Component Remediation				2400	2-4Q						2400	
Subtotal:			664695	88271		28800		26581			900276	

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 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Cost Analysis Support	MIPR	AMCOM Matrix	798	78	1-3Q	80	1-3Q	81	1-3Q		1119	
Logistics Analysis Support - Organic	MIPR	AMCOM Matrix	1469	423	1-3Q	393	1-3Q	259	1-3Q		2674	
Logistics Analysis Support - Support Contractor	MIPR	Support Contractor	1608	352	1-3Q	327	1-3Q	216	1-3Q		2682	
Subtotal:			3875	853		800		556			6475	

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Test Planning, Test and Evaluation	MIPR	Various Activities	31834	1829	1-3Q	3060	1-3Q	4967	1-3Q		46499	
Test Planning, Test and Evaluation	MIPR	Various Activities	612	134	1-3Q	137	1-3Q	239	1-3Q		1122	
Subtotal:			32446	1963		3197		5206			47621	

IV. Management Services	Contract Method &	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award	FY 2009 Cost	FY 2009 Award	FY 2010 Cost	FY 2010 Award	Cost To Complete	Total Cost	Target Value of

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
504

	Type				Date		Date		Date			Contract
PM Support - Organic	MIPR	UH PMO/matrix	8920	1139	1-4Q	1052	1-4Q	665	1-4Q		12446	
PM Support - Contract	C/FP	AMCOM Express Contractor	4847	749	1-4Q	697	1-3Q	459	1-3Q		6966	
SIBR/STTR			4383			996					5379	
Subtotal:			18150	1888		2745		1124			24791	
Project Total Cost:			**719166**	**92975**		**35542**		**33467**			**979163**	

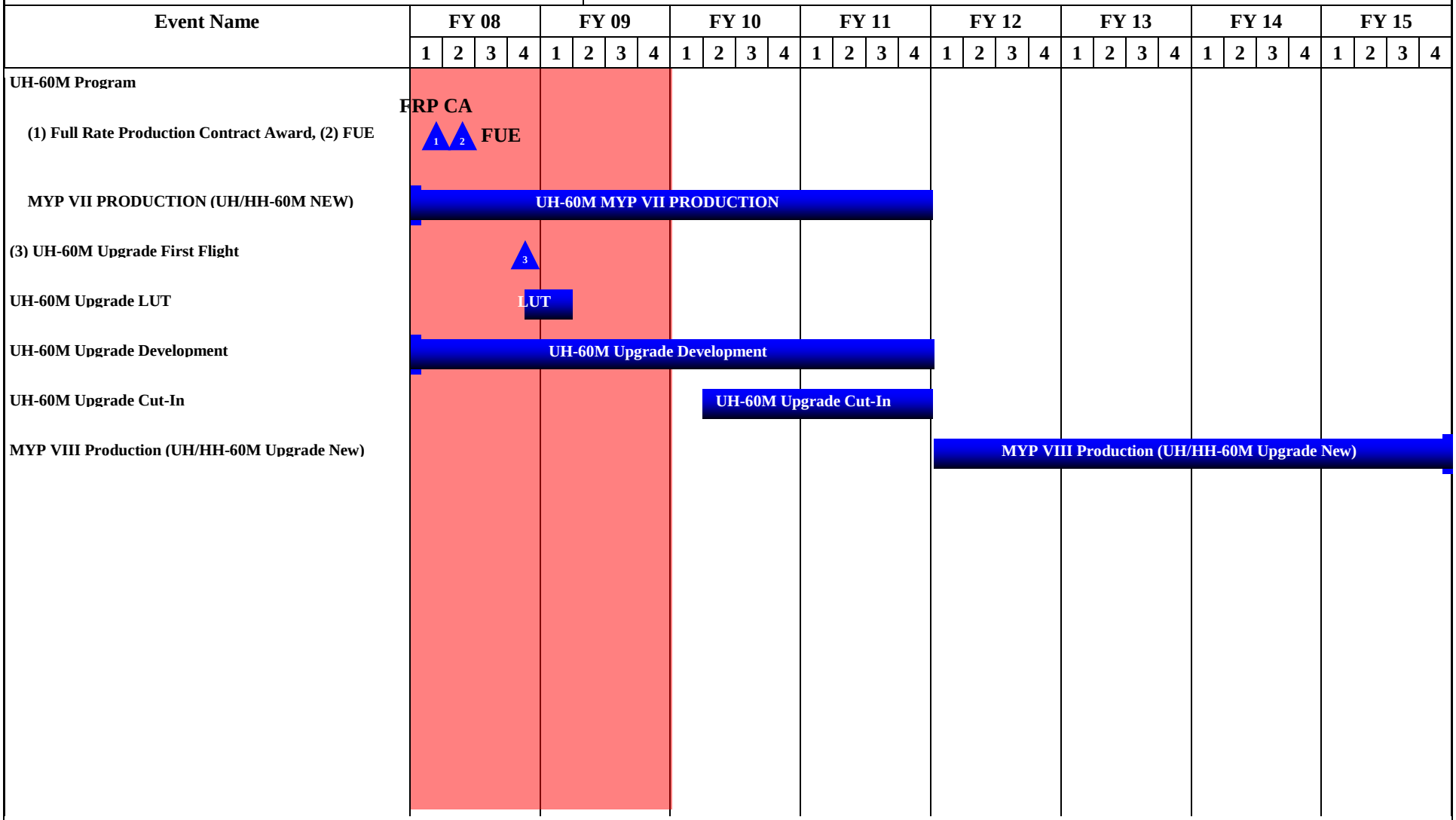
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
504



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
504

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
UH-60M Program	1Q - 4Q	1Q - 4Q	1Q					
Full Rate Production Contract Award	1Q							
FUE	2Q							
MYP VII PRODUCTION (UH/HH-60M NEW)	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q				
UH-60M Upgrade First Flight	4Q							
UH-60M Upgrade LUT	4Q	1Q						
UH-60M Upgrade Development	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q			
UH-60M Upgrade Cut-In			1Q - 4Q	1Q - 4Q				
MYP VIII Production (UH/HH-60M Upgrade New)					1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0203744A - Aircraft Modifications/Product Improvement Programs**	**D12**

COST (In Thousands)		FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
D12	LONGBOW APACHE OPERATIONAL SYSTEMS DEVELOP	8478	38339	13284		60101

A. Mission Description and Budget Item Justification: FY10: Funding is continued for Light Weight Missile Launcher (LWML) development, testing, and integration. The LWML will provide weight savings per launcher, commonality, producibility and improved electronics reliability to the Apache fleet. In addition, the AAH PMO and the Night Vision and Electronic Sensors Directorate (NVESD) mutually agreed to enter into a Technology Transition Agreement (TTA) for the purpose of defining technology deliverables from the Electronic Image Intensifier (EI2) for Pilotage Technology Transition Initiative (TTI) to the Arrowhead Modernized-Target Acquisition Designation Sight/Pilot Night Vision Sensor (M-TADS/PNVS) program. A new camera will provide high quality, Aviator's Night Vision Imaging System (ANVIS)-equivalent (the current Army aviation night goggles) performance imagery that can be fused with thermal imagery for improved nighttime pilotage and situational awareness over a broader range of degraded visual conditions.

FY09: Project D12, Longbow Apache Operational System Development, was funded for the accelerated fielding of the Composite Main Rotor Blade (CMRB), the development of the initial suite of the Apache Maintenance Part Task Trainers (PTT), and the development of a Light Weight Missile Launcher (LWML), an upgrade to the current M299 launcher. An updated state-of the-art CMRB is in development for the Block III Apache. The effort in this project provides funding for qualification and enables accelerated fielding for the Longbow Apache Attack Helicopter Block I/II fleet. The CMRB provides twice the time on wing and provides more lift which will have a significant impact to combat operations in OIF/OEF. The development of Apache Maintenance Part Task Trainers addresses the requirements of the US Army Aviation Logistics School for additional maintenance training devices to meet the increasing volume of initial entry students for Military Occupational Specialties 15R and 15Y. The new AH-64D Maintenance PTT are: Wing PTT, Integrated Pressurized Air System PTT, Gun PTT, and Multiplex PTT.

FY 2008 funding total includes no funding received in the Bridge Supplemental.
FY 2008 funding totals do not include any previously requested funding for FY 2008 GWOT requirements, and no FY 2008 GWOT funds have been previously requested in the RDTE Project of D12.
FY 2009 funding totals do not include any previously requested funding for current FY 2009 Overseas Contingency Operations (OCO) requirements, and no FY 2009 OCO funds have been previously requested in the RDTE Project of D12.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Boeing NRE Contract -- CMRB Acceleration Development		11431	
SOFSA/L3 Inc. NRE Contract -- Apache Training Devices		13951	
Light Weight Missile Launcher (LWML) NRE Contract [Note: FY08 funds were moved with a 1414 action to the LWML Program and PM JAMS will report on the funding.]	8478	9558	10350
Kiowa Warrior Vehicle Health & Usage Management System (add will be moved to PE 0604220)		2325	

Electronic Image Intensifier Technology Transition Initiative (EI2 TTI)			2934
Small Business Innovative Research/Small Business Technology Transfer Programs		1074	
Total	8478	38339	13284

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
APA, SSNs: AA6606, AA6670	5153634	991816	741715		6887165
APA, SSN A05111			219170		219170
RDTE, 0203744A, D17	185366	197716	150793		533875

Comment:

C. Acquisition Strategy FY09 CMRB funding will be placed on contract as part of the Block III Phase I SDD effort. The Apache Maintenance Part Task Trainer funding will be placed on contract with L3 through SOFSA. The Light Weight Missile Launcher (LWML) project was competitively awarded in FY08 (under PM JAMS) as an incrementally funded FFP contract. (FY10 funding is required to complete the contract.) Supporting programs to the LWML are the JAGM missile system PE 655450, other missile product improvement PE 0203802A, Hellfire system C70000, and Hellfire Mods C71500.

FY10, EI2 TTI -- NVESD is performing developmental flight testing with NVESD aircraft. Operational testing will be in the Apache aircraft. NVESD will manage the AAH PMO'S flight testing.

FY10, LWML -- The requested funds are to complete contractor design, test, logistics development, and Government airworthiness qualification testing. Prior year funds have been used to initiate and sustain the contract for those activities. Missile R&D funds were originally utilized for specification development, RFP generation, and contractor source selection. The project has traditional review and continuation points with Preliminary and Critical Design Reviews, a Production Readiness Review, and In-Process Review for a production decision. First Unit Equipped will be 1st quarter FY12.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
D12

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Boeing NRE -- CRMB	Cost Reimb	Boeing Company, Mesa, AZ	641			11431	1-2Q				12072	12072
SOFSA/L3 Inc. NRE -- TADSS	Cost Reimb	SOFSA/L3 Inc., Lexington, KY				15025	1-2Q				15025	15025
Lockheed Martin -- LWML	FFP	LM Missiles & Fire Control, Orlando, FL		8478	1-2Q	9558	1-2Q	4030	1-2Q		22066	22066
Kiowa Warrior (add will be moved)						2325					2325	2325
Subtotal:			641	8478		38339		4030			51488	51488

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Light Weight Missile Launcher (LWML)	n/a (Government testing, see Major Performers)	(see Major Performers)						6320	1-2Q		6320	6320
Elec Image Intensifier Tech Transition (EI2 TTI)	NVESD (flight testing)	NVESD, Ft. Belvoir, VA						2934	1-2Q		2934	2934
Subtotal:								9254			9254	9254

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
D12

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
Project Total Cost:			**641**	**8478**		**38339**		**13284**			**60742**	**60742**

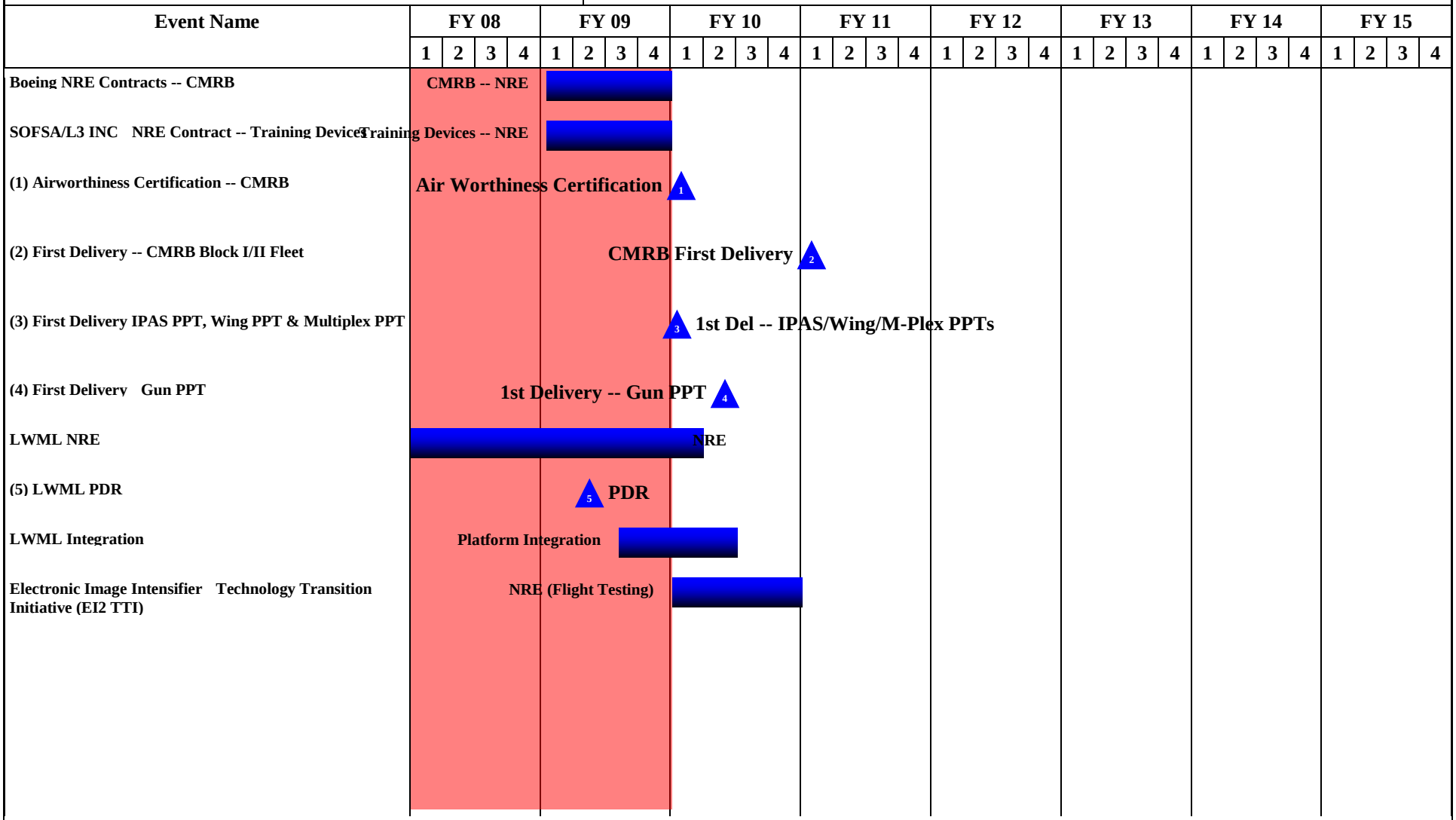
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
D12



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
D12

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Boeing NRE Contracts -- CMRB		1Q - 4Q						
SOFSA/L3 INC NRE Contract -- Training Devices		1Q - 4Q						
Airworthiness Certification -- CMRB			1Q					
First Delivery -- CMRB Block I/II Fleet				1Q				
First Unit Equipped (FUE) -- CMRB Block I/II Fleet				3Q				
First Delivery IPAS PPT, Wing PPT & Multiplex PPT			1Q					
First Delivery Gun PPT			2Q					
LWML NRE	1Q - 4Q	1Q - 4Q	1Q					
LWML PDR		2Q						
LWML Integration		3Q - 4Q	1Q - 2Q					
Electronic Image Intensifier Technology Transition Initiative (EI2 TTI)			1Q - 4Q					

Termination Liability Funding For Major Defense Acquisition Programs, RDT&E Funding (R5)			May 2009
BUDGET ACTIVITY **7 - Operational system development**	PE NUMBER AND TITLE **0203744A - Aircraft Modifications/Product Improvement Programs**		PROJECT **D12**

Funding in $000

Program	FY 2008	FY 2009	FY 2010
Boeing		1143	
SOSFA/L3 INC		1395	
Light Weight Launcher (TBD)		956	1035
Kiowa Warrior (add to be moved)		233	
Elec Image Intensifier Tech Trans Init (EI2TTI)			293
Total Termination Liability Funding:		3727	1328

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

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

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
D17 APACHE BLOCK III	185366	197716	150793	Continuing	Continuing

A. Mission Description and Budget Item Justification: Project D17, Apache Block III (AB3) funding is for the non-recurring engineering (NRE), development, and testing work associated with the planned remanufacture of 634 Apache aircraft into Block III-configured aircraft (deliveries to begin in FY11). AB3 is a result of the continuously evolving process to keep the Apache fleet viable on the battlefield. Consequently, AB3 is the Army's only attack helicopter solution capable of interoperability with Joint and Future Combat Forces. The AB3 program is the remanufacture of the aging Apache fleet integrating proven technologies into a mature weapon system platform. AB3 will add significant combat capability while addressing obsolescence issues to ensure the aircraft remains a realistic combat multiplier beyond 2025. AB3 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.

FY 2008 funding total includes no funding received in the Bridge Supplemental. FY 2008 funding totals do not include any previously requested funding for current FY 2008 GWOT requirements, and no FY 2008 GWOT funds have been previously requested in the RDTE Project D17.

FY 2009 funding totals do not include any previously requested funding for current FY 2009 Overseas Contingency Operations(OCO)requirements, and no FY 2009 OCO funds have been previously requested in the RDTE Project D17.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Boeing NRE Contracts	146000	145322	107474
Joint Venture NRE Contracts	22000	26000	13000
Block III NRE Program Support Activities	8429	7828	18149
Operational Assessments	2639	6430	7174
Management Services	6298	6599	4996
Small Business Innovative Research/Small Business Technology Transfer Programs		5537	
Total	185366	197716	150793

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
APA, SSN AA6605	5153634	991816	741715		6887165
APA, SSN A05111			219170		219170
RDTE, PE273744D12	8478	38339	13284		60101

Comment:

C. Acquisition Strategy The NRE will encompass subsystem integration and will utilize existing test aircraft, incorporate the technical insertions, and initiate appropriate qualification and operational flight testing. The LRIP effort will include a total quantity of 53 aircraft which will take 21 months for delivery and therefore will be two separate contractual actions (FY 09 & FY 10). These 53 Low Rate Initial Production (LRIP) aircraft are to be used for operational testing, First Unit Equipped (FUE), and training base fielding.

In FY10, a contract for Apache Block III Lot 1 (8 aircraft), initiating low rate initial production, will be awarded with options for Lot 2a (30 aircraft) & Lot 2b (15 aircraft).

In FY12, a contract for Apache Block III Lot 3 (30 aircraft), initiating full rate production, will be awarded with options for Lot 4 (45 aircraft), Lot 5 (48 aircraft, Lot 6 (48 aircraft), and continuing through to a total of 634 aircraft.

Contractor Support is anticipated 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 09 to support the LRIP deliveries in 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.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
D17

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Boeing Contracts	Cost Reimb	Mesa, AZ	186177	146000	1-2Q	150859	1-2Q	107474	1-2Q		590510	590510
Joint Venture Contracts	Cost Reimb	Orlando, FL	74000	22000	1-2Q	26000	1-2Q	13000	1-2Q		135000	135000
Lockheed Martin Contracts	Cost Reimb	Orlando, FL										
Subtotal:			260177	168000		176859		120474			725510	725510

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Block III NRE Support	Various	Various Activities	5693	8429	1-3Q	7828	1-2Q	18149	1-2Q		40099	41099
Subtotal:			5693	8429		7828		18149			40099	41099

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Operational Assessments, Test Integration Working Group (TWIG), TEMP, etc.	MIPR, Various	Various Activities	1127	2639	1-2Q	6430	1-2Q	7174	1-2Q		17370	17370
Subtotal:			1127	2639		6430		7174			17370	17370

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Management Svcs (In-House, Travel, etc.)	Various	PMO AAH, Matrix Support, AMCOM	12979	6298	1-2Q	6599	1-2Q	4996	1-2Q		30872	32328

ARMY RDT&E COST ANALYSIS (R3)

May 2009

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

		Express										
Subtotal:			12979	6298		6599		4996			30872	32328
Project Total Cost:			**279976**	**185366**		**197716**		**150793**			**813851**	**816307**

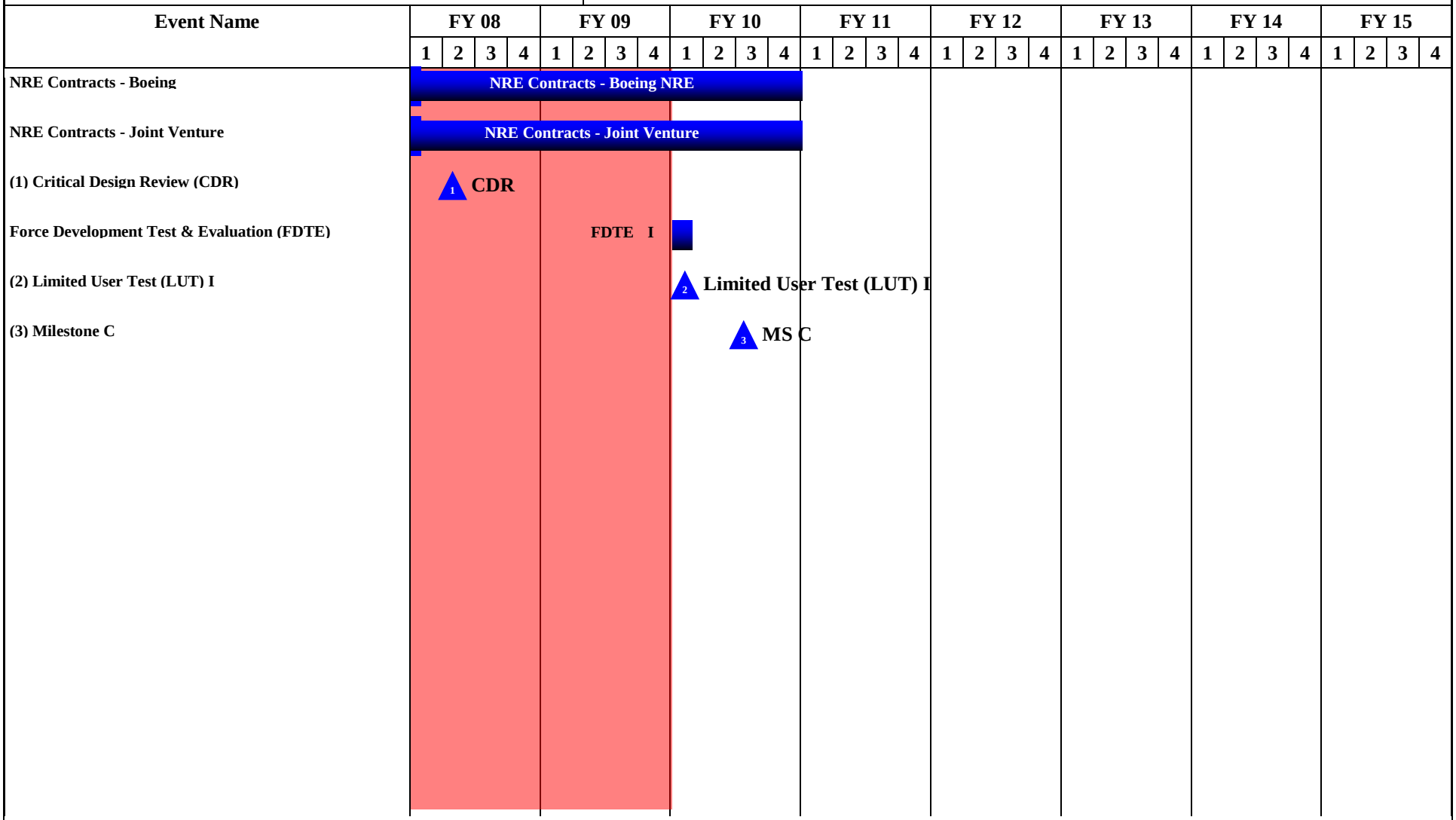
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0203744A - Aircraft Modifications/Product Improvement Programs

PROJECT
D17



Schedule Detail (R4a Exhibit)

May 2009

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

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
NRE Contracts - Boeing	1Q - 4Q	1Q - 4Q	1Q - 4Q					
NRE Contracts - Joint Venture	1Q - 4Q	1Q - 4Q	1Q - 4Q					
Critical Design Review (CDR)	2Q							
Force Development Test & Evaluation (FDTE)			1Q					
Limited User Test (LUT) I			1Q					
Milestone C			3Q					

Termination Liability Funding For Major Defense Acquisition Programs, RDT&E Funding (R5)		May 2009
BUDGET ACTIVITY **7 - Operational system development**	PE NUMBER AND TITLE **0203744A - Aircraft Modifications/Product Improvement Programs**	PROJECT **D17**

Funding in $000

Program	FY 2008	FY 2009	FY 2010
D17, Apache Block III	18600	19700	15100
Total Termination Liability Funding:	18600	19700	15100

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

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

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
D18 UTILITY FW CARGO AIRCRAFT	6314	3006	984		10304

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

FY 2009 and FY 2010 funds are required to continue supporting Production Qualification Testing and the statutorily-mandated LFT&E.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Production Qualification Test (PQT)	3489	1569	529
Live Fire Test & Evaluation (LFT&E) Testing	2825	1437	455
Total	6314	3006	984

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
A11000 JOINT CARGO AIRCRAFT	155982	263381			419363
USAF PE0401138F/Project 5259 Joint Cargo Aircraft	20283	16732	9353	Continuing	Continuing
USAF BA 02/Item No. 10b/Joint Cargo Aircraft			319050	Continuing	Continuing

Comment: The Joint Cargo Aircraft test program is a joint effort between the Army and the Air Force. Each service will provide 50% of the required funding critical to complete aircraft testing to include PQT, LFT&E and IOT&E. This agreement was approved in the Memorandum of Agreement (MOA) signed June 2006. Air Force PE: 0401138F (Joint Cargo Aircraft), Project: 5259. The Air Force RDT&E line also includes funding for Trainer Development; Engineering, Training and Logistics Studies; and Joint Development Engineering.

C. Acquisition Strategy The Joint Cargo Aircraft's acquisition strategy is based on leveraging the commercial market. The contract was awarded in June 2007 to procure a previously developed and fielded, low-risk, commercially available aircraft and Mission Equipment Package (MEP). A protest immediately followed, which resulted in a 100 day stop work order. Program was re-started in October 07. These aircraft possess open architecture systems that will support technology insertions as improvements become available.

The JCA program was established to correct operational shortfalls with respect to time sensitive mission critical requirements, provide commonality with other aviation platforms, and replace multiple retiring aircraft systems. This aircraft addresses these shortfalls, and replaces retiring C-23 fleets, and selected C-12s.