ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**

	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	53900	147040	114087	49403	15520	30974	28589	Continuing	Continuing
114	Tactical Unmanned Aerial Vehicle (TUAV) (JMIP)	15868	25573	12873	8012	8224	7854	8123	Continuing	Continuing
11A	Advanced Payload Develop & Spt (JMIP)	20330	9550	4280	1241	1242	16555	13654	Continuing	Continuing
11B	TSP DEVELOPMENT (JMIP)	15468	17076	7213	0	0	0	0	0	45407
123	JOINT TECHNOLOGY CENTER SYSTEM INTEGRATION (JMIP)	2234	2318	2438	2262	2363	2483	2538	Continuing	21108
D09	EXTENDED RANGE UAV (JMIP)	0	92523	87283	37888	3691	4082	4274	Continuing	Continuing

A. Mission Description and Budget Item Justification: The Tactical Unmanned Aerial Vehicle (TUAV) provides the Brigade Commander with dedicated day/night reconnaissance, surveillance and target acquisition (RSTA), Intelligence, and Force Protection. The Shadow provides the Brigade Commander with critical battlefield intelligence and targeting information in the rapid cycle time required for success at the tactical level. The TUAV Shadow 200 air vehicle meets the required range of 50 kilometers and remains on station for up to five hours. The baseline fielded payload is electro-optic infrared (EO/IR). Procurement of systems including attrition air vehicles commenced in FY 2001. The TUAV Shadow 200 system consists of four air vehicles, (each configured with an EO/IR sensor payload), launcher and ground control and support equipment including: power generation, communications equipment, automated recovery equipment, remote video terminals, vehicle mounted shelters, and High Mobility Multipurpose Wheeled Vehicles with trailer(s). Each system is supported at the brigade level by one Maintenance Section Multifunctional Vehicle and at the division level by a Mobile Maintenance facility. The TUAV Shadow 200 is a brigade asset that has logged over 70,000 flight hours since June 2001, 60,000+ of which were flown in the last 24 months in support of Operation Iraqi Freedom (OIF). The Shadow UAV system has proven itself under combat conditions while deployed in support of OIF.

Continued fielding and war time lessons learned have been used to identify critical areas for improvement. These areas include enhanced C4I (Blue Force Tracker), survivability enhancement (noise and signature reduction), automatic landing system enhancements, software optimization including increased Joint Technical Architecture - Army (JTA-A) compliance and automated checklists and reduce human error during launch, flight and recovery operations, and reduction of Total Ownership Cost through design enhancements. Future initiatives will focus on the transition of technologies that directly support the Army's Future Force, such as counter camouflage, and other specialty payloads as appropriate. The Advanced Payload Development & Support efforts will establish the infrastructure to evaluate the maturity of the technology efforts and transition an employable TUAV capability. Development and fielding of the TRADOC System Manager (TSM) UAV's top 5 Operations Requirement Document (ORD) threshold and objective requirements priorities include Synthetic Aperture Radar/Moving Target Indicator, Communication Relay Payload, Laser Designation, and Objective EO/IR. Interoperability and joint operations integration activities aimed at reducing cost of ownership and commonality with other Army and Department of Defense (DoD) agencies is accomplished through the Joint Technology Center/System Integration Lab (JTC/SIL). The JTC/SIL is a joint integration center that develops the Multiple Unified Simulation Environment (MUSE), which provides simulations of tactical UAVs and strategic Intelligence, Surveillance and Reconnaissance (ISR) assets. The simulation is used to integrate Shadow with a broad range of joint systems, including the Army Tactical Exploitation Station, the Navy Joint Fires Network, and the Air Force ISR-Manager and Distributed Common Ground Station. The MUSE provides for the development of real-time interoperable hardware and operator-in-the-loop simulations of multiple intelligence systems, and is routinely employed to simulate Shadow in warfighter exercises throughout the world.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**

B. Program Change Summary	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY 2006)	53592	139610	113223
Current BES/President's Budget (FY 2007)	53900	147040	114087
Total Adjustments	308	7430	864
Congressional Program Reductions		-652	
Congressional Rescissions		-1498	
Congressional Increases		11200	
Reprogrammings	308	-1620	
SBIR/STTR Transfer			
Adjustments to Budget Years			864

Change Summary Explanation: Funding - FY06: $6.3 million Congressional plus up for Project 114 in support of Tactical Hyperspectral Imaging System ($1.8M), TUAV Testing and Engineering Support ($1.5M), UAV to Soldier Real Time Video Link ($1.5M), I-GNAT Extended Range Remotely Operated Aircraft System ($1.5M). $4.9M Congressional plus up for Project 11B for Small Platform Modern Signal Communications Intelligence.

Schedule Detail (R4a Exhibit)		February 2006
BUDGET ACTIVITY **7 - Operational system development**	PE NUMBER AND TITLE **0305204A - Tactical Unmanned Aerial Vehicles**	PROJECT **0305204A**

Schedule Detail: Not applicable for this item.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**114**

	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
114	Tactical Unmanned Aerial Vehicle (TUAV) (JMIP)	15868	25573	12873	8012	8224	7854	8123	Continuing	Continuing

A. Mission Description and Budget Item Justification: The Tactical Unmanned Aerial Vehicle (TUAV) provides the Brigade Commander with dedicated day/night reconnaissance, surveillance and target acquisition (RSTA), Intelligence, and Force Protection. The Shadow provides the Brigade Commander with critical battlefield intelligence and targeting information in the rapid cycle time required for success at the tactical level. The TUAV Shadow 200 air vehicle meets the required range of 50 kilometers and remains on station for up to five hours. The baseline fielded payload is electro-optic infrared (EO/IR). Procurement of systems including attrition air vehicles commenced in FY 2001. The TUAV Shadow 200 system consists of four air vehicles, (each configured with an EO/IR sensor payload), launcher and ground control and support equipment including: power generation, communications equipment, automated recovery equipment, remote video terminals, vehicle mounted shelters, and High Mobility Multipurpose Wheeled Vehicles with trailer(s). Anticipated system improvements include Blue Force Tracker integration, laser designator integration and tactical common data link integration and testing. Each system is supported at the brigade level by one Maintenance Section Multifunctional Vehicle and at the division level by a Mobile Maintenance Facility. The TUAV Shadow 200 is a brigade asset that has logged over 70,000 flight hours since June 2001, 60,000+ of which were flown in the last 24 months in support of OIF. The Shadow UAV system has proven itself under combat conditions while deployed in support of OIF.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
Program Management Support	2162	1122	650
Development Testing / Risk Reduction Testing / ST&E / Reliablity Test	1124	1500	1000
Target Location Error (TLE) / Digital Data Link development efforts, Tactical Common Data Link (TCDL) and Joint Tactical Radio System (JTRS) / Laser Designator	4251	15300	2000
C4I Maintenance / Improvements (ABCS 4.3, 6.2, ...) / Communications Relay	1875	0	0
OIF Improvements (Blue Force Tracker, 1101 Engine Upgrade, System Upgrades)	4356	2851	4223
TLE Inertial Measurement Unit (IMU)	0	0	5000
I-GNAT	2100	1500	0
Tactical Hyperspectral Imaging System	0	1800	0
UAV Soldier Real Time Video Link	0	1500	0
Total	15868	25573	12873

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
TUAV Procurement (BA0330)	305569	160974	36098	43359	216943	218854	32679	CONT	CONT

Initial Spares - TUAV (BS9738)	9783	3000	2834	0	0	0	0	CONT	CONT

C. Acquisition Strategy A System Capability Demonstration (SCD) was conducted with four contractors. The results from the SCD in conjunction with proposal evaluations resulted in the competitive down select of a Best Value TUAV system. A successful Milestone II ASARC was conducted on 21 December 1999, and a TUAV LRIP contract was awarded to the AAI Corporation on 27 December 1999. In order to accelerate fielding of the TUAV system, a second LRIP for four systems was awarded on 30 March 2001 following a successful OPTEMPO test. In order to maintain accelerated fielding and continue ramp up to full rate production, a third LRIP was awarded in March 2002. A successful LRIP program led to a MS III decision on 25 September 2002 and award of a full rate production contract on 27 December 2002. Continued development of the selected TUAV system will be accomplished through a series of upgrades to incorporate improvements such as extended range and endurance, reliability, increased payload weight space and power capability, Tactical Common Data Link and advanced sensor payloads as they mature and are operationally proven.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
114

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
TUAV LRIP Program	Comp / FPIF	AAI Corporation, MD	63965	0		0		0		0	63965	63965
C4I Maintenance / Improvements / Communications Relay	MIPR / PWD	Various	1000	1875	1-3Q	0		0		0	2875	2875
TAFT System Support	CPFF	AAI Corporation, MD	3375	0		0		0		0	3375	3375
Ground Control Station and Trailers	CPFF	AAI Corporation, MD & Northrop Grumman, CA	11808	0		0		0		0	11808	11808
I-GNAT	CPFF	General Atomics	9709	2100	1-4Q	1500	2-3Q	0		0	13309	11809
Government Furnished Equipment	MIPR	Various	2036	0		0		0		0	2036	2036
SIL/MUSE	MIPR	Sys Integration Lab, AMCOM Redstone, AL	1500	0		0		0		0	1500	1500
Tactical Control System	PWD	AMCOM RDEC Redstone, AL	700	0		0		0		0	700	700
Advanced Payload Development/Modification/ Integration	MIPR	PM UAV Payloads, Huntsville, AL	4118	0		0		0		0	4118	4118
Institutional Mission Simulator	MIPR	Sys Integration Lab, AMCOM Redstone, AL	2910	0		0		0		0	2910	2910
Objective Capability Assessment/Development / C4I	Comp/FPIF	AAI Corporation, MD	3044	0		0		0		0	3044	3044
Improved EO/IR Payload Modification/Integration Assessment for Demo on Hunter	Comp/Opt	AMCOM RDEC Redstone, AL	200	0		0		0		0	200	200
TUAV Ground Control Station Architecture	MIPR	Sys Integration Lab, AMCOM Redstone, AL	7275	0		0		0		0	7275	7275
Outrider Advance Concept Technology Demonstration Bridge Contract	SS/FPIF	Alliant Techsystems, Hopkins, MN	10600	0		0		0		0	10600	10600
TUAV Source Selection/System Capabilities Demo	MIPR/PWD	Various	7200	0		0		0		0	7200	7200
Target Location Error (TLE) /	MIPR/PWD	Various	15042	4251	2-3Q	15300	2-3Q	2000	1-2Q	0	36593	36593

Digital Data Link, TCDL/JTRS / Laser Designator												
Army Apache/UAV Interoperability Demonstration	MIPR	AMCOM RDEC Redstone, AL	350	0		0		0		0	350	350
Corrective Actions/Engineering Support	CPFF / PWD	AAI Corporation, MD	10375	0		0		0		0	10375	10375
Hunter UAV non-recurring support	SS/FPIF	TRW, Sierra Vista, AZ	4140	0		0		0		0	4140	4140
Hardware cost for GCS's (2) to be integrated into the selected AV's for the ER req.	CPFF	Northrop Grumman, CA	2000	0		0		0		0	2000	2000
OIF Reliability Upgrade	CPFF / PWD	AAI Corporation, MD	4100	0		0		0		0	4100	4100
OIF Reliability Upgrade	CPFF / PWD	AAI Corporation, MD	2100	0		0		0		0	2100	2100
OIF Improvements (Blue Force Tracker, 1101 Engine Upgrade, System Upgrades)	CPFF / PWD	AAI Corporation, MD	928	4356	2-3Q	2851	2Q	4223	1-2Q	0	12358	12358
Airframe Optimization	CPFF / PWD	AAI Corporation, MD	5300	0		0		0		0	5300	5300
TLE Inertial Measurement Unit (IMU)	CPFF / PWD	AAI Corporation, MD	0	0		0		5000	1-3Q	0	5000	5000
Tactical Hyperspectral Imaging System	CPFF / PWD	AAI Corporation, MD	0	0		1800	2-3Q	0		0	1800	1800
UAV Soldier Real Tim Video Link	CPFF / PWD	AAI Corporation, MD	0	0		1500	2Q	0		0	1500	1500
Subtotal:			173775	12582		22951		11223		0	220531	219031

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
Contractor Engineering Support	CPFF	Various	8000	656	1-2Q	600	1-2Q	250	1Q	Continue	Continue	Continue
Government Engineering Support	PWD	AMCOM Redstone, AL	4904	773	1Q	222	1Q	150	1Q	Continue	Continue	Continue
Goverment Engineering Support - Extended Range	PWD	AMCOM Redstone, AL	1476	0		0		0		0	1476	1476
Subtotal:			14380	1429		822		400		Continue	Continue	Continue

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
114

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
Risk Reduction Testing/ST&E	MIPR	Various	14221	1124	1-3Q	1500	2Q	1000	1-3Q	Continue	Continue	Continue
Development Testing/ OPTEMPO Testing / Risk Reduction Testing / ST&E	MIPR	Various	4354	0		0		0		0	4354	4354
C4I Testing	MIPR	Various	1980	0		0		0		0	1980	1980
OPTEMPO Demo	MIPR	Various	1000	0		0		0		0	1000	1000
Data Acquisition System (DAS) Instrumentation Van	MIPR	Redstone Technical Test Center, AL	810	0		0		0		0	810	810
IOT&E Preparation and Support/Travel	MIPR	ATEC/PM/OGA Ft. Hood, TX	750	0		0		0		0	750	750
Subtotal:			23115	1124		1500		1000		Continue	Continue	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	Target Value of Contract
Program Mgt Personnel	MIPR	PM UAVS Redstone, AL	7323	733	1-4Q	300	1-4Q	250	1-4Q	Continue	Continue	Continue
Subtotal:			7323	733		300		250		Continue	Continue	Continue

Project Total Cost:			**218593**	**15868**		**25573**		**12873**		**Continue**	**Continue**	**Continue**

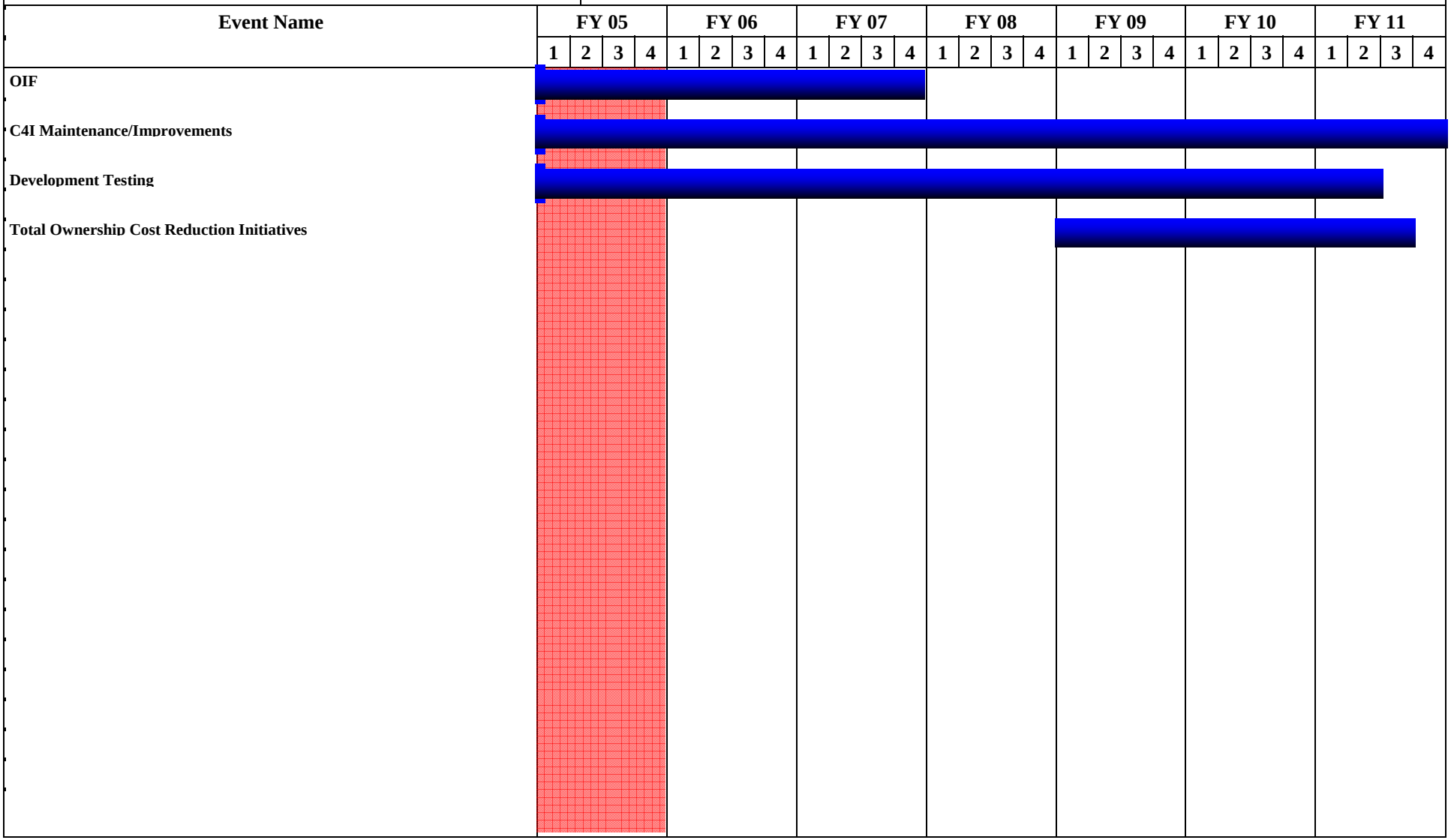
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
114



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**114**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
C4I Maintenance/ Improvements (ABCS 4.3, 6.2, ...)	1-4Q						1Q
Development Testing / Risk Reduction Testing / ST&E	1-3Q	2-3Q	1-3Q				
TLE / TCDL / JTRS / Laser Designator	1-3Q	2-3Q	1-3Q				
Total Ownership Cost Reduction Initiative				1-3Q	1-3Q	1-3Q	1-3Q
P3I				1-2Q	1-2Q	1-2Q	1-2Q
OIF Reliability Upgrade							
OIF Improvements	1-3Q	2-3Q	1-3Q				
Airframe Optimization							
I-GNAT	1-4Q	2-3Q					
TLE Inertial Measurement Unit (IMU)			1-3Q				
Tactical Hyperspace Imaging System		2-3Q					
UAV Soldier Real Time Video Link		2-3Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**11A**

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
11A	Advanced Payload Develop & Spt (JMIP)	20330	9550	4280	1241	1242	16555	13654	Continuing	Continuing

A. Mission Description and Budget Item Justification: This project supports the Army's transformation by developing payloads for brigade combat team, division, and corps Unmanned Air Vehicles (UAV) and unmanned systems in accordance with Headquarters Department of the Army (HQDA) and Training and Doctrine Command (TRADOC) UAV priorities. The Synthetic Aperture Radar/Ground Moving Target Indicator (SAR/GMTI) payload will provide a wide-area search capability with a built-in imaging mode that provides essential all-weather surveillance and increased situational awareness. The SAR/GMTI payload is a complementary system of the Army's Future Combat System (FCS) Class IV UAV and is a principal payload for the Extended Range/Multi-Purpose (ER/MP) UAV. The Electro Optical Infra Red w/Laser Designator (EO/IR/LD) is currently in development for the ER/MP system and has potential application to other platforms. The EO/IR/LD will provide a day/night capability to collect and display continuous imagery with the ability to designate targets of interest for attack by laser guided precision weapons. Additional initiatives will continue to focus on the transition of technologies directly supporting emerging requirements and the Army's Current and Future Force.

FY2007 funding continues the development, system integration and refurbishment of UAV payloads for follow on testing.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
SAR/GMTI Development and Integration - includes Development Test.	9543	3482	3042
EO/IR/LD development includes engineering/program management support	10787	6068	1238
Total	20330	9550	4280

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Advanced TUAV Payloads (B00302)	0	41647	33328	39215	20285	25867	34282	127797	322421

C. Acquisition Strategy The System Development and Demonstration (SDD) contract for the SAR/GMTI Payload was competitively awarded 1QFY04 for the design/modification and fabrication of SDD articles. The SAR/GMTI SDD articles will be refurbished and provided to ER/MP for integration and testing and participation in the ER/MP Limited User Test (LUT). Additional capabilities will be added via spiral development depending on need and technology maturity. An additional two (2) units have been procured under the existing contract to support ER/MP system integration and test.

The SDD contract for the ER/MP EO/IR/LD was competitively awarded in 3rd quarter FY05 for 10 test articles. After combined development and operational testing, the SDD

articles will be provided to the ER/MP program for system integration and test. After the ER/MP Limited User Test, the SDD units will be refurbished and used to support the platform during Initial Operational Test & Evaluation (IOT&E).

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
11A

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
SAR/GMTI System Development & Demonstration	COMP/CPIF	General Atomics, San Diego, CA	16596	6740	2-4Q	500	2-3Q	1750	2-3Q	0	25586	25586
EO/IR/LD System Development & Demonstration	COMP/FFP/CPFF	Raytheon, McKinney, TX	0	8589	3Q	2485	1-2Q	0		0	11079	11079
Subtotal:			16596	15329		2985		1750		0	36665	36665

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
Engineering Support	MIPR	Various	5097	3461	1-4Q	2386	1-4Q	1797	1-4Q	Continue	Continue	0
Subtotal:			5097	3461		2386		1797		Continue	Continue	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
SAR/GMTI Developmental Test Support	MIPR	DTC, Aberdeen Proving Grounds, MD	70	227	1-4Q	500	1-2Q	0		0	797	0
SAR/GMTI Operational Testing	MIPR	IEWTD, Fort Huachuca, AZ	0	390	1-4Q	940	1-2Q	0		0	1330	0
EO/IR/LD Developmental Testing	MIPR	DTC, Aberdeen Proving Grounds, MD	0	0		1049	2-3Q	0		0	1049	0
EO/IR/LD Operational Testing	MIPR	IEWTD, Fort Huachuca, AZ	0	0		993	2-3Q	0		0	993	0
Subtotal:			70	617		3482		0		0	4169	0

Remarks: Government, contractor, and test support for UAV testing contained in the ER/MP Platform.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
11A

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	Target Value of Contract
Program Mgt Personnel	In House	PM RUS, Ft. Monmouth, NJ	927	923	1-4Q	697	1-4Q	733	1-4Q	Continue	Continue	0
Subtotal:			927	923		697		733		Continue	Continue	0
Project Total Cost:			**22690**	**20330**		**9550**		**4280**		**Continue**	**Continue**	**36665**

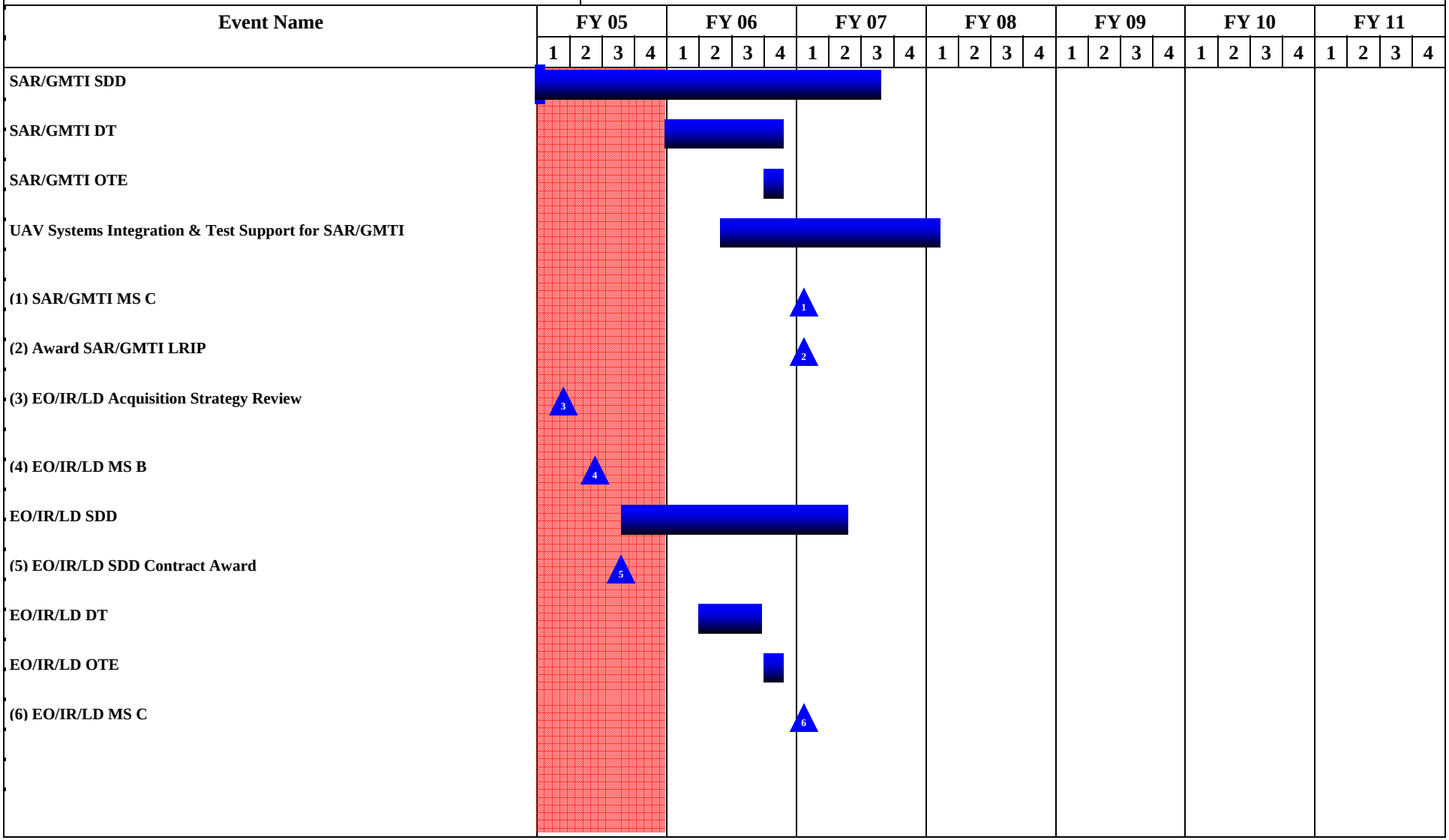
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
11A



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**11A**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
SAR/GMTI System Development and Demonstration (SDD) Contract	1-4Q	1-4Q	1-3Q				
SAR/GMTI DT		1-4Q					
SAR/GMTI OTE		4Q					
UAV Systems Integration & Test for ER/MP		2-4Q	1-4Q	1Q			
MS C for SAR/GMTI			1Q				
Award SAR/GMTI LRIP			1Q				
EO/IR/LD Acquisition Strategy Review	1Q						
EO/IR/LD MS B	2Q						
EO/IR/LD SDD	3-4Q	1-4Q	1-2Q				
EO/IR/LD SDD Contract Award	3Q						
EO/IR/LD DT		2-3Q					
EO/IR/LD OTE		4Q					
EO/IR/LD MS C			1Q				
Emerging Technology tranisition initiatives				1-4Q	1-4Q	1-4Q	1-4Q

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**11B**

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
11B	TSP DEVELOPMENT (JMIP)	15468	17076	7213	0	0	0	0	0	45407

A. Mission Description and Budget Item Justification: Tactical SIGINT Payload (TSP) is an Unmanned Aerial Vehicle (UAV) mounted SIGINT sensor that detects radio frequency (RF) emitters. TSP, a key Future Combat System (FCS) component, is capable of providing the Brigade Combat Team (BCT) Land Commander with an overwatch and a penetrating SIGINT system capable of detecting, identifying, locating, and providing geolocation information on RF emitters throughout the Area of Operations (AO). The BCT commander will deploy TSP to provide sensor coverage where FCS ground vehicles cannot perform the SIGINT mission due to radio line of sight blockage. TSP is developing sensors for BCT applications to detect low-power radio emitters. The SIGINT payload is scalable and designed to provide maximum flexibility for the BCT mission profile. TSP will provide near real time (NRT) actionable intelligence that can immediately be used in the commanders' decision cycle. The TSP electronic emitter information will be correlated with data from other systems, e.g. Prophet and Aerial Common Sensor (ACS) to provide precise targeting information for immediate engagement. The TSP sensors are critical to providing full coverage Intelligence, Surveillance and Reconnaissance (ISR) information for Future Force capabilities for Future Combat Systems (FCS) and contributing to the Joint Intelligence, Surveillance and Reconnaissance (ISR) net.

FY07 funding supports delivery of four fully tested prototypes to FCS.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
TSP SDD Contract Planning and Solicitation	0	0	0
SDD Phase	8618	12076	7113
Modeling and Simulation	200	100	100
WILDCAT - Concept Exploration	6650	4900	0
Total	15468	17076	7213

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
Project 030588G Defense Cryptologic Program Funds - TSP	2091	3766	4107	7013	7008	6933	6897	0	37815
WTCV G86100 Future Combat Systems	0	3000	0	0	0	0	0	0	3000

Comment: Future Combat Systems will provide $3M to TSP in FY06. These funds will be used to pay for FCS directed modifications to the TSP configuration and fund the cost of prototype hardware.

C. Acquisition Strategy TSP MS B was completed in June 04 for entry into the System Development and Demonstration (SDD) phase. The SDD contract was awarded under a full and open competitive solicitation on 30 June 2004. Funding and award of follow-on procurement will be exercised by Future Combat Systems (FCS).

WILDCAT has entered the Acquisition Cycle in the Concept Exploration (CE) phase. The Project will be executed by RDECOM/CERDEC, with the CE effort being awarded under a CERDEC Technology Development contract.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
11B

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
TSP SDD Contract	CPFF	BAE Systems, Nashua, NH	2180	5100	1Q	7003	1-2Q	1371	1Q	0	15654	0
Modeling and Simulation	MIPR	TEC	200	200	1Q	100	1Q	100	1Q	0	600	0
WILDCAT - Concept Exploration	CPFF	Radix Technologies, Inc., Mountain View, CA	0	6650	3Q	4900	2Q	0		0	11550	0
Subtotal:			2380	11950		12003		1471		0	27804	0

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
Engineering Support	FFP	MITRE, McLean, VA	423	260	1Q	280	1Q	330	1Q	0	1293	0
Matrix Support	MIPR	CECOM, Fort Monmouth NJ	720	125	1Q	430	1Q	420	1Q	0	1695	0
Engineering Support	FFP	CACI, Eatontown, NJ	615	865	1Q	554	1Q	554	1Q	0	2588	0
Engineering Support	FFP	Various	280	160	1Q	0		0		0	440	0
SDD Engineering Support	MIPR	Various, Ft Monmouth, NJ	500	612	1Q	653	1Q	674	1Q	0	2439	0
Subtotal:			2538	2022		1917		1978		0	8455	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
Test Support	MIPR	EPG, Ft Huachuca, AZ	0	50	2Q	1600	1Q	889	1Q	0	2539	0
Continuous Evaluation	MIPR	ATEC, Ft Belvoir, VA	100	100	2Q	100	2Q	100	2Q	0	400	0
Test Platform for Flight Demo	CPAF	BAE Systems, Nashua,	100	946	2Q	1006	2Q	1675	2Q	0	3727	0

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**11B**

		NH										
Test Support	MIPR	Various	0	0		0		650	2Q	0	650	0
Subtotal:			200	1096		2706		3314		0	7316	0

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	Target Value of Contract
Program Management	In House support	PM, Signals Warfare, Fort Monmouth, NJ	342	400	1-4Q	450	1-4Q	450	1-4Q	0	1642	0
Program Support	C/T&M	Various	190	0		0		0		0	190	0
Subtotal:			532	400		450		450		0	1832	0
Project Total Cost:			**5650**	**15468**		**17076**		**7213**		**0**	**45407**	**0**

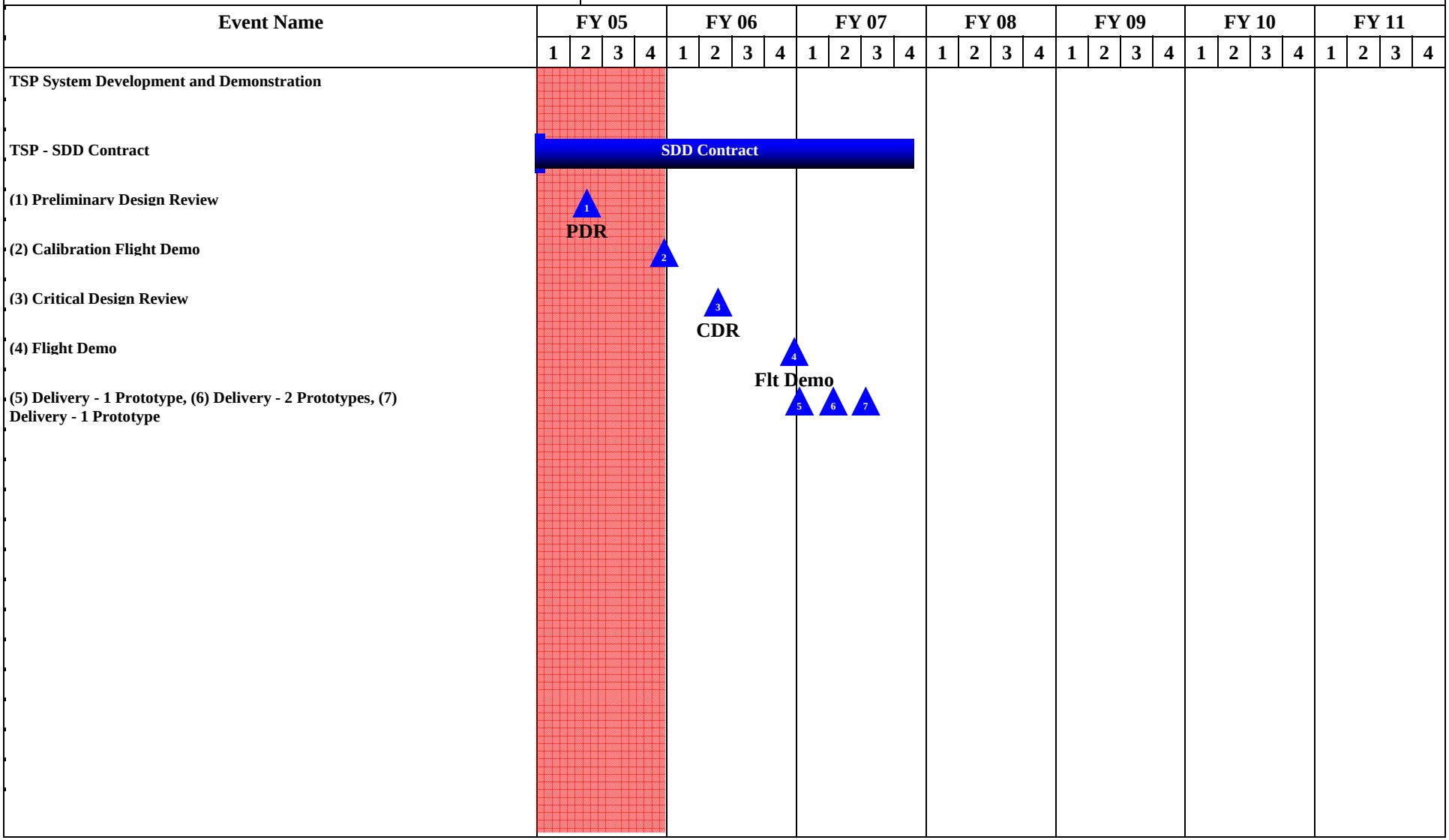
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
11B



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**11B**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
TSP SDD Contract	1-4Q	1-4Q	1-4Q				
Preliminary Design Review	2Q						
Calibration Flight Demo	4Q						
Critical Design Review		2Q					
Flight Demo		4Q					
Prototype Deliveries			1-3Q				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**123**

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
123	JOINT TECHNOLOGY CENTER SYSTEM INTEGRATION (JMIP)	2234	2318	2438	2262	2363	2483	2538	Continuing	21108

A. Mission Description and Budget Item Justification: The Joint Technology Center/System Integration Laboratory (JTC/SIL) is a joint facility that develops, integrates and supports the enhancement of its Multiple Unified Simulation Environment (MUSE) capability for Army systems and operational concepts. The JTC/SIL conducts prototype hardware and software development (i.e. TUAV Tactical Unmanned Control System (TUCS), TUAV Institutional Mission Simulation (IMS) Trainer, TUAV C4I module), modeling and simulation support. The MUSE develops real-time, operator in-the-loop simulations that are capable of tactical Hardware-In-the-Loop (HWIL) interoperability for multiple intelligence systems, that may be integrated with larger simulations in support of Service training and exercises. MUSE provides a realistic operational environment, supporting a wide range of C4I applications. This project funds the management of the JTC/SIL and MUSE enhancements.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
Implement Tactical Common Datalink Model	0	100	0
Incorporate new technology sensors and platforms into the MUSE	150	0	0
Develop and upgrade Terrain and Target databases	230	80	80
Implement Advanced Sensor / Payload Simulations	0	50	75
Implement / Integration Weapons Simulation for Weaponized UAV	0	75	50
Incorporate STANAG 4586 Datalike Interface Standard	0	82	61
Upgrade HLA Certification and DITSCAP	213	0	0
Evaluate and integrate New Visualization Technologies into MUSE	0	75	75
Technical support of MUSE integration with IEWTPT	0	40	40
Enhance VTUAV Models	0	50	50
Provide MUSE Configuration Management and Help Desk Services	240	250	250
MUSE Equipment	335	328	348
JTC/SIL Management	236	308	394
Initial development of Multi-Spectral and Hyper-Spectral simulations	245	0	0
Prototype FIA interfaces and capabilities	120	0	0
Imagery generation upgrade conversion	160	0	0
Enhance IR abd SAR model sets	90	100	100

Update interfaces to DoD models	215	80	80
Integrate UAV Survivability Models and Attributes	0	0	80
Enhance Fixed Wing UAV Models	0	50	75
Update MUSE HLA and DITSCAP	0	100	100
Enhance of Fixed Target Models	0	75	75
Common UAV Trainer Enhancements	0	80	80
Implement Tailored Auto Track and Auto Search Models	0	0	75
Incorporate Effects of Digital Payload Imagery	0	80	35
Continue C4I Enhancements	0	90	90
Continue OneSAF Vignette development	0	75	75
Continue Usability Enhancements	0	100	100
Enhance Small UAV Models	0	50	50
Total	2234	2318	2438

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
PE 0305204N Navy	1700	1700	1700	0	0			0	6800
PE 0305205F Air Force	2000	2000	2000	0	0			0	8000

C. Acquisition Strategy Continued MUSE development will be accomplished through a combination of Government in-house functional directorate support and contractor support using a variety of existing RDEC contract vehicles and the OMNIBUS 2000 contract.

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
123

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
Initiate MTI/FTI Sensor Sim Develop/Upgrade SAR	SS/CPFF	AMC/AMCOM/AMRDEC/SED/Redstone Arsenal, AL	143	0		0		0		0	143	143
MUSE Remote Support Capability	SS/CPFF	GDIS/Arlington, VA	415	0		0		0		0	415	415
Develop MUSE Fixed Target Damage Site Visualization	SS/CPFF	GDIS/Arlington, VA	235	0		0		0		0	235	235
Upgrade HLA Certification and DITSCAP	SS/CPFF	AMC/AMCOM/AMRDEC/SED/Redstone Arsenal, AL	479	213	1Q	100	1Q	100	1Q	0	892	892
MUSE Equipment	C/FFP	Various	1775	146	1Q	328	1Q	348	1Q	0	2597	2597
MUSE Hardware Consolidation into Single PC-Based Platform	SS/CPFF	GDIS/Arlington, VA	237	0		0		0		0	237	237
Develop / Integrate and Implement TCDL into MUSE in Support of TUAV ORD	SS/CPFF	GDIS/Arlington, VA	150	0		100	1Q	0		0	250	250
Develop & Upgrade Terrain & Target Databases	SS/CPFF	Quality Research Institute/HSV, AL	809	230	1Q	80	1Q	80	1Q	0	1199	1199
Incorporate New Technology Sensors & Platforms into the MUSE	SS/CPFF	GDIS/Arlington, VA	200	75	1Q	0		0		0	275	275
Integrate Weapon Employment Capabilities into MUSE	C/FFP	TBD	124	0		0		0		0	124	124
Evaluate and Integrate New Visualization Technologies into MUSE	C/FFP	TBD	105	0		0		0		0	105	105
Link Fixed Target Database with DIA MIDB	SS/CPFF	TBD	245	0		50	1Q	75	1Q	0	370	370
Initial VTUAV/UCARS Vehicle models	SS/CPFF	TBD	165	0		50	1Q	50	1Q	0	265	265
Initial ATARS & TARPS Simulation model	SS/CPFF	SAIC/HSV, AL.	235	0		0		0		0	235	235

Initial effects-based fixed target behavior model	SS/CPFF	SAIC/HSV, AL.	190	0		0		0		0	190	190
Initial development of Multi-spectral & Hyper-spectral simulation	SS/CPFF	GDIS/Arlington, VA	0	206	1Q	0		0		0	206	206
Prototype FIA interfaces & capabilities			0	120	1Q	0		0		0	120	120
Imagery generation upgrade conversion	SS/CPFF	GDIS/Arlington, VA	0	160	1Q	0		0		0	160	160
Enhance IR & SAR model sets	SS/CPFF	GDIS/Arlington, VA	0	90	1Q	0		0		0	90	90
Implement Advanced Sensor / Payload	SS/CPFF	GDIS/Arlington, VA	0	0		50	1Q	75	1Q	0	125	125
Implement / Integration Weapons Simulation for Weaponized UAV	SS/CPFF	GDIS/Arlington, VA	0	0		75	1Q	50	1Q	0	125	125
Incorporate STANAG 4586 Datalink Interface Standard	SS/CPFF	GDIS/Arlington, VA	0	0		82	1Q	61	1Q	0	143	143
Enhance Small UAV / IR / SAR & Fixed Target Models	SS/CPFF	GDIS/Arlington, VA	0	0		225	1Q	225	1Q	0	450	450
Integrate UAV Survivability Models and Attributes	SS/CPFF	GDIS/Arlington, VA	0	0		0		80	1Q	0	80	80
Evaluate and Integrate new Visualization Technology / System	SS/CPFF	GDIS/Arlington, VA	0	0		75	1Q	75	1Q	0	150	150
Common UAV Trainer Enhancements	SS/CPFF	GDIS/Arlington, VA	0	0		80	1Q	80	1Q	0	160	160
Implement Tailored Auto Track and Auto Search Models	SS/CPFF	GDIS/Arlington, VA	0	0		0		75	1Q	0	75	75
Incorporate Effects of Digital Payload Imagery	SS/CPFF	GDIS/Arlington, VA	0	0		80	1Q	35	1Q	0	115	115
OneSAF Vignette development	SS/CPFF	GDIS/Arlington, VA	0	0		75	1Q	75	1Q	0	150	150
Usability Enhancements	SS/CPFF	GDIS/Arlington, VA	0	0		100	1Q	100	1Q	0	200	200
Subtotal:			5507	1240		1550		1584		0	9881	9881

II. Support Costs	Contract	Performing Activity &	Total	FY 2005	FY 2005	FY 2006	FY 2006	FY 2007	FY 2007	Cost To	Total	Target

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
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	Method & Type	Location	PYs Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Complete	Cost	Value of Contract
Provide Direct JSTARS CGS Interface	SS/CPFF	GDIS/Arlington, VA	75	0		0		0		0	75	75
Technical Support of MUSE Integration with IEWTPT	C/CPFF	GDIS/Arlington, VA	175	0		40	1Q	40	1Q	0	255	255
Initiate MUSE TUAV Flight Performance Model Verification & Validation Process	C/CPFF	Dynetics/Huntsville, AL	465	0		0		0		0	465	465
Provide MUSE Configuration Mgt and Help Desk Services	C/CPFF	GDIS, Arlington, VA	940	222	1Q	250	1Q	250	1Q	0	1662	1662
JTC/SIL Management	C/CPFF	TBD	200	80	1-3Q	0		0		0	280	280
MUSE Equipment	C/CPFF	AMC/AMCOM/AMRDEC/SED/Redstone Arsenal, AL	595	166	1Q	0		0		0	761	761
Incorporate New Technology Sensors & Platforms into the MUSE	C/CPFF	SAIC/Huntsville, AL	200	75	1Q	0		0		0	275	275
Update interfaces to DoD models	C/CPFF	GDIS/Arlington, VA	0	215	1Q	80	1Q	80	1Q	0	375	375
Subtotal:			2650	758		370		370		0	4148	4148

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
C4I Enhancements	SS/CPFF	GDIS/Arlington, VA	0	0		90	1Q	90	1Q	0	180	180
Subtotal:			0	0		90		90		0	180	180

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	Target Value of Contract
JTC/SIL Management Personnel	In House	JTC/SIL/Redstone	868	236	1-4Q	308	1-4Q	394	1-4Q	0	1806	1806

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**123**

		Arsenal, AL									
Subtotal:			868	236		308		394		0	1806	1806
Project Total Cost:			**9025**	**2234**		**2318**		**2438**		**0**	**16015**	**16015**

Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**123**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
JTC/SIL MUSE Enhancement and Management	1-4Q						
Implement Tactical Common Datalink Model		1-4Q					
Develop and upgrade Terrain and Target databases	1-4Q	1Q	1Q	1Q	1Q	1Q	1Q
Evaluate and Integrate New Visualization Technologies into MUSE							
MUSE Equipment	1Q	1Q	1Q	1Q	1Q	1Q	1Q
Initial development of Multi-Spectral and Hyper-Spectral Simulations	1Q						
Integrate UAV Survivability Models and Attributes			1Q				
Common UAV Trainer Enhancements		1Q	1Q				
Enhance Small UAV Models		1Q	1Q				
Update interfaces to DoD Models	1-4Q	1Q	1Q				

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**D09**

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
D09 EXTENDED RANGE UAV (JMIP)	0	92523	87283	37888	3691	4082	4274	Continuing	Continuing

A. Mission Description and Budget Item Justification: The Extended Range Multi-Purpose (ERMP) Unmanned Aircraft System (UAS) will provide combatant commanders a much improved real-time responsive capability to conduct long-dwell, wide area reconnaissance, surveillance, target acquisition, communications relay, and attack missions (4 Hellfire). As a follow-on to the aging Hunter system, ERMP addresses an ever-increasing demand for greater range, altitude, endurance and payload flexibility with mission change in flight. Each 12 aircraft system, with Electro-Optical/Infrared, Synthetic Aperture Radar, and communications relay packages, will support 10 key Army Divisions and be responsive to the lowest level of command for dynamic re-tasking. Ground equipment includes 5 Ground Control Stations, 5 Ground Data Terminals, 2 Portable Ground Control Stations, 2 Portable Ground Data Terminals, and other associated ground support equipment. The acquisition strategy has capitalized upon competitive forces, bringing cutting-edge improvements at the best cost and value that support the major thrusts of the DoD UAS Roadmap, a host of other studies, and the imperatives of Army modernization and Army Aviation Transformation. This includes backward compatibility with existing Army UAS systems, heavy fuel engine, 40 hours of endurance, Tactical Common Data Link technology, network connectivity that reduces information cycle time and enhances overall battlespace awareness through liberal dissemination, teaming with manned platforms, and steps toward integration of UAS into national and international airspace. The ability to operate multiple ERMP aircraft simultaneously from the One System Ground Control Station, interoperability with the Shadow UAS, a 3,000 pound gross take off weight (with growth to 3,600 pounds), Fowler flaps which improves take-off and landing performance, Automatic Take-off and Landing and the flexibility to operate with or without SATCOM data links are more of the characteristics that make this system a combat multiplier. With more weapons, payloads, and endurance than any other current system in its class, ERMP gives the Army the required capability defined by years of wartime experience and codified by the JROC.

RDT&E funds resource the System Development and Demonstration (SDD) phase for ERMP, as well as continuing improvements after SDD. FY06 activities entail design development, and work leading to the critical milestones of System Requirements Review, Preliminary Design Review, Critical Design Review, and Design Readiness Review (DRR). The DRR with the Milestone Decision Authority provides an assessment of the design maturity including key system characteristics and manufacturing processes. Engineering developmental tests and pre-production testing frame the major FY 07 activities. These activities prepare the system and lower risk for the LUT and Logistics Demonstration events in FY08, and the IOT&E and other events in FY09. Testing of prototype articles includes components of E3, environmental, and NBC as well as software certification, many of which run concurrently to conserve schedule.

Accomplishments/Planned Program	FY 2005	FY 2006	FY 2007
Program Management	0	2742	3433
Government Furnished Equipment	0	3141	5353
Development Engineering	0	32909	27917
Prototype Manufacturing	0	52190	41006
System Test & Evaluation	0	1541	9574
Total	0	92523	87283

B. Other Program Funding Summary	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
TUAV - Extended Range / Multi-Purpose (B00305)	0	0	30869	101523	157257	297478	301247	CONT	CONT
Extended Range / Multi-Purpose - Weapons Capability Modifications (B10307)	0	0	15161	15207	15224	15244	15272	CONT	CONT
I-GNAT (B00305)	0	41647	0	0	0	0	0	41647	83294

C. Acquisition Strategy The ERMP ORD was approved by the JROC on 6 April, 2005, Milestone B occurred on 20 April, and the System Development and Demonstration contract was awarded 8 August, 2005 as a result of a competitive solicitation which included a vendor system capabilities demonstration. To meet the required capability, evolutionary acquisition will be employed to implement the incremental approach outlined in the ORD. The ERMP UAS will be matured during the System Development and Demonstration (SDD) phase, which includes the development and integration of key components such as the Tactical Common Data Link (TCDL) with compatibility to Link-16, and integration of Government Furnished Equipment, payloads, appropriate Common Aviation Ground Support Equipment and the GCS. PM JAMS will develop the "P+" model of the Hellfire and participate in the integration and test activities for the entire ERMP system. PM JAMS will budget for the procurement of missiles for the fielded systems. Field Tests at the Electronic Proving Grounds in Ft.Huachuca, AZ, and integration tests at the Central Technical Support Facility in Ft. Hood,TX, are examples of the testing regimen planned to reduce risk in the SDD phase. A favorable Milestone C decision will allow award of a second contract for the LRIP and Production and Deployment phase. The LRIP will provide several things:

a. Establish an effective and efficient production base for the system required to provide a solid foundation on which to build FRP systems.
b. Permit an orderly increase in production rate, to mitigate risk.
c. Procure production representative equipment to support test & evaluation.
d. Support Doctrine, Training, Leadership Development, Organization, Materiel, Personnel and Facilities (DTLOMPF) and Tactics, Techniques and Procedures (TTP) development.
e. Provide an opportunity to incorporate lessons learned from the comprehensive test and evaluation program into the production baseline.

ARMY RDT&E COST ANALYSIS (R3)

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BUDGET ACTIVITY
7 - Operational system development

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D09

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
Target Location Error / OIF TUAV Enhancements	TBD	AAI, MD	2350	0		0		0		0	2350	2350
Acqusition Simulation & Demonstration	TBD	Camber, Huntsville, AL	1000	0		0		0		0	1000	1000
Long Lead Items for One System Integration & Test	TBD	Various Contractors	7633	0		0		0		0	7633	7633
Tactical Common Data Link Initial Integration	TBD	Various Contractors	4113	0		0		0		0	4113	4113
One System Initial Integration with Prime AV Vendor	TBD	Various Contractors	3651	0		0		0		0	3651	3651
Source Selection	TBD	Other Government Agencies	2146	0		0		0		0	2146	2146
Development Engineering	CPIF/AF	General Atomics / ASI - San Diego, CA	0	0		32909	2-3Q	27917	2-3Q	0	60826	60826
Prototype Manufacturing	CPIF/AF	General Atomics/ASI - San Diego, CA	0	0		52190	2-3Q	41006	2-3Q	0	93196	93196
Government Furnished Equipment			0	0		3141	2-3Q	5353	2-3Q	0	8494	8494
Subtotal:			20893	0		88240		74276		0	183409	183409

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
Contractor Engineering Support	MIPR / PWD	Various Contractors	1000	0		1236	1-2Q	1223	1-2Q	0	3459	3459
Government Engineerng Support	MIPR / PWD	Other Government Organizations	330	0		1000	1-2Q	1400	1-2Q	0	2730	2730
Subtotal:			1330	0		2236		2623		0	6189	6189

ARMY RDT&E COST ANALYSIS (R3)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
D09

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
System Test and Evaluation		TBD	0	0		1541	2-3Q	9574	2-3Q	0	11115	11115
Subtotal:			0	0		1541		9574		0	11115	11115

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	Target Value of Contract
Program management	MIPR / PWD	PM UAV, Redstone Arsenal, AL	400	0		506	1-4Q	810	1-4Q	0	1716	1716
Subtotal:			400	0		506		810		0	1716	1716
Project Total Cost:			**22623**	**0**		**92523**		**87283**		**0**	**202429**	**202429**

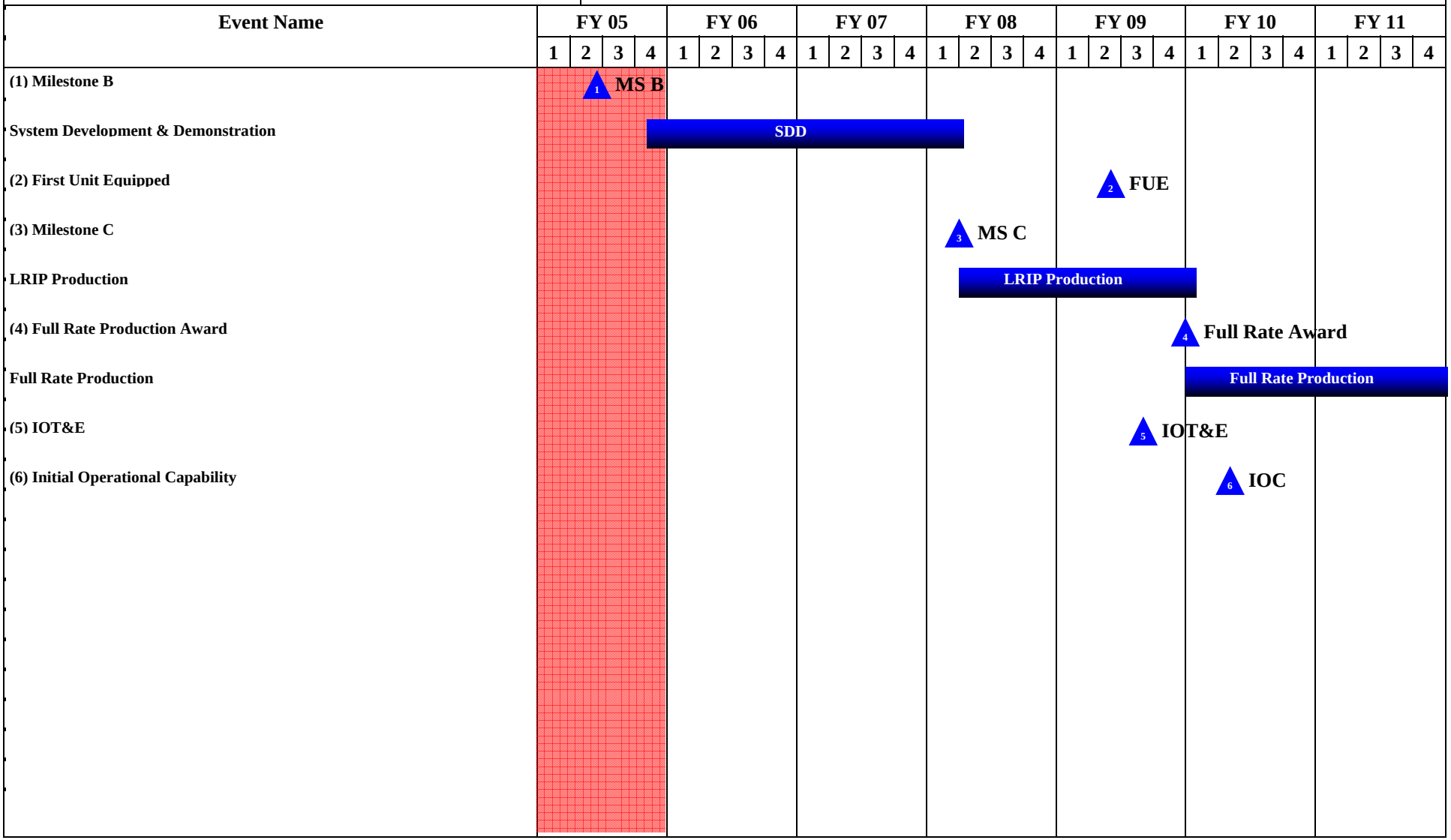
Schedule Profile (R4 Exhibit)

February 2006

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305204A - Tactical Unmanned Aerial Vehicles

PROJECT
D09



Schedule Detail (R4a Exhibit)

February 2006

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305204A - Tactical Unmanned Aerial Vehicles**	**D09**

Schedule Detail	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Paper Downselect to two Venders	1-2Q						
Downselect to one Vender	2Q						
Government Furnished Equipment		2-3Q	2-3Q	1-3Q			
Development Engineering		2-3Q	1-2Q	1-2Q	1-2Q	1-2Q	1-2Q
Prototype Manufacturing		2-3Q	1-2Q				
System Test & Evaluation		2-3Q	2-3Q				