ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604329A - Common Missile**	**013**

COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
013 JOINT COMMON MISSILE	28104	93705	152381	146851	83967	67095	57101	Continuing	Continuing

A. Mission Description and Budget Item Justification: The Joint Common Missile (JCM) is an aviation-launched, Current-to-Future Force missile system that provides advanced line-of-sight (LOS) and beyond-line–of-sight (BLOS) capabilities, including precision strike, passive, and fire–and-forget seeker technologies; increased range; and increased lethality. Replacing aviation-launched TOW, the HELLFIRE family of missiles, and Maverick, JCM will become the weapon of choice for Army rotary-wing systems including the Longbow Apache (AH-64D) and Comanche (RAH-66). JCM is also a lethality candidate for Future Combat Systems (FCS) ground platforms. The JCM is a Joint program (rotary and fixed wing requirements) with the Navy and USMC for the Super Hornet (F/A-18E/F), the Seahawk (MH-60R), and Super Cobra (AH-1Z). Finally, JCM is a cooperative development program with the United Kingdom for their fixed and rotary wing aircraft. The JCM maximizes the warfighters' operational flexibility by effectively engaging a variety of stationary and mobile targets on the battlefield, including advanced armor, bunkers, buildings, patrol craft, command and control vehicles, transporter/erector (e.g., SCUD) launchers and light armored vehicles. Its multi-mode seeker will allow maximum capability in adverse weather, day or night, and in an obscured/countermeasure environment against both stationary and moving targets. JCM supports more efficient logistics for expeditionary force tailoring by replacing several missile variants with a single, interoperable weapon. It also allows flexibility in the location of resupply on the battlefield, thereby minimizing the logistic burden of the combat force. JCM's modular design will reduce life-cycle costs, including demilitarization, while ensuring the missile system continues to provide the required improvements to keep pace with needed capabilities and advancing threats.

FY04 began a two-phased Increment I System Development and Demonstration (SDD) program will begin. Phase 1 will focus on risk mitigation (e.g., demonstrating progress toward meeting 16 kilometer range) culminating in a system Preliminary Design Review (PDR). Phase 2, to be initiated in FY05, will focus on system integration and demonstration and will culminate with limited user testing and an operational assessment. Technology maturation and preliminary systems integration will be accomplished using SMART (Simulation and Modeling for Acquisition, Requirements and Training) to begin systems integration efforts for the enabling subsystems, including the multi-mode seeker, boost/sustain propulsion and a multi-purpose warhead. Additional capabilities forecast for follow-on increments include a man-in-the-loop (MITL) inflight target update, controllable missile velocity, and an anti-radiation homing variant to engage threat tactical air defense radar emitters.

The JCM system supports the Current to Future Force transition path of the Transformation Campaign Plan.

Accomplishments/Planned Program	FY 2003	FY 2004	FY 2005
Complete Risk Reduction engineering effort on seeker, warhead, propulsion and platform integration	18271	0	0
Complete Systems Engineering - Risk Reduction evaluation of sensor models, geometric/performance models, perform warhead lethality, and continue development of seeker, sensor, propulsion and warhead technologies	9833	0	0
Initiate risk mitigation phase, e.g., demonstrating progress toward 16 kilometer range (Conduct Phase 1 effort)	0	71200	0
Initiate Qualified Baseline Design, developmental testing, operational assessment and system integration and demonstration for SDD (Conduct Phase 2 effort)	0	0	135470
Procure component hardware for engineering testing, prepare and update missile design documentation and procure prototype hardware and test equipment (RDT&E Articles-Flyable, Non-Flyable, and Low Fidelity Inert)	0	19884	16911
Small Business Innovative Research/Small Business Technology Transfer Programs	0	2621	0
Totals	28104	93705	152381

B. Program Change Summary	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	28602	183790	182932
Current Budget (FY 2005 PB)	28104	93705	152381
Total Adjustments	-498	-90085	-30551
Congressional program reductions		-89991	
Congressional rescissions			
Congressional increases			
Reprogrammings	-498	-94	
SBIR/STTR Transfer			
Adjustments to Budget Years			-30551

FY04 decreased $89.1 million as a result of Congressional reduction and FY05 funds realigned to higher priority Army requirements.

C. Other Program Funding Summary	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	ToCompl	TotalCost
C70302 - Joint Common Missile (JCM)	0	0	0	0	6196	71668	102793	2450100	2630757

D. Acquisition Strategy: In JCM's previous phase (Concept and Technology Development, C/TD), JCM contractors were selected via full and open competition. The JCM program's acquisition strategy consists of two increments in an evolutionary acquisition: the full Increment 1 capability will be acquired in a 48 month System Development and Demonstration effort through a two-phased approach. Phase 1 will focus on risk mitigation culminating in a system Preliminary Design Review (PDR). Immediately following, Phase 2 will focus on system integration and demonstration leading to a Milestone C decision. The Increment 1 SDD effort will be competed among the C/TD contractors for contract award covering Phase 1 and Phase 2 development.

ARMY RDT&E COST ANALYSIS(R3)

February 2004

BUDGET ACTIVITY
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Prime Contracts (CTD)	CPFF, Full & Open	Raytheon, AZ; Lockheed Martin, FL; Boeing, AL	7083	8509	1Q	0		0		0	15592	0
b . Prime Contract (SDD)	TBD	TBD	0	0		64656	2-4Q	119290	1Q	340291	524237	0
c . Support Contracts (Risk Reduction/SDD)	Various	Various	4219	5291	1-3Q	6104	1-3Q	8047	1-3Q	18695	42356	0
d . Development Engineering (Risk Reduction/SDD)	Various	Various	2013	3360	1-4Q	6897	1-4Q	6950	1-4Q	27997	47217	0
Subtotal:			13315	17160		77657		134287		386983	629402	0

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . SETA Support	Various	Various	1411	2900	1-3Q	2816	1-3Q	3025	1-3Q	13084	23236	0
Subtotal:			1411	2900		2816		3025		13084	23236	0

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Other Gov Agencies/Government Inhouse Test Support	TBD	TBD	1119	2159	1-3Q	3261	1-3Q	4337	1-3Q	55075	65951	0
Subtotal:			1119	2159		3261		4337		55075	65951	0

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . System Engineering/Proj Mgt	Various	Various	4913	5885	1-4Q	9971	1-4Q	10732	1-4Q	47872	79373	0
Subtotal:			4913	5885		9971		10732		47872	79373	0
Project Total Cost:			20758	28104		93705		152381		503014	797962	0

Schedule Profile (R4 Exhibit)

February 2004

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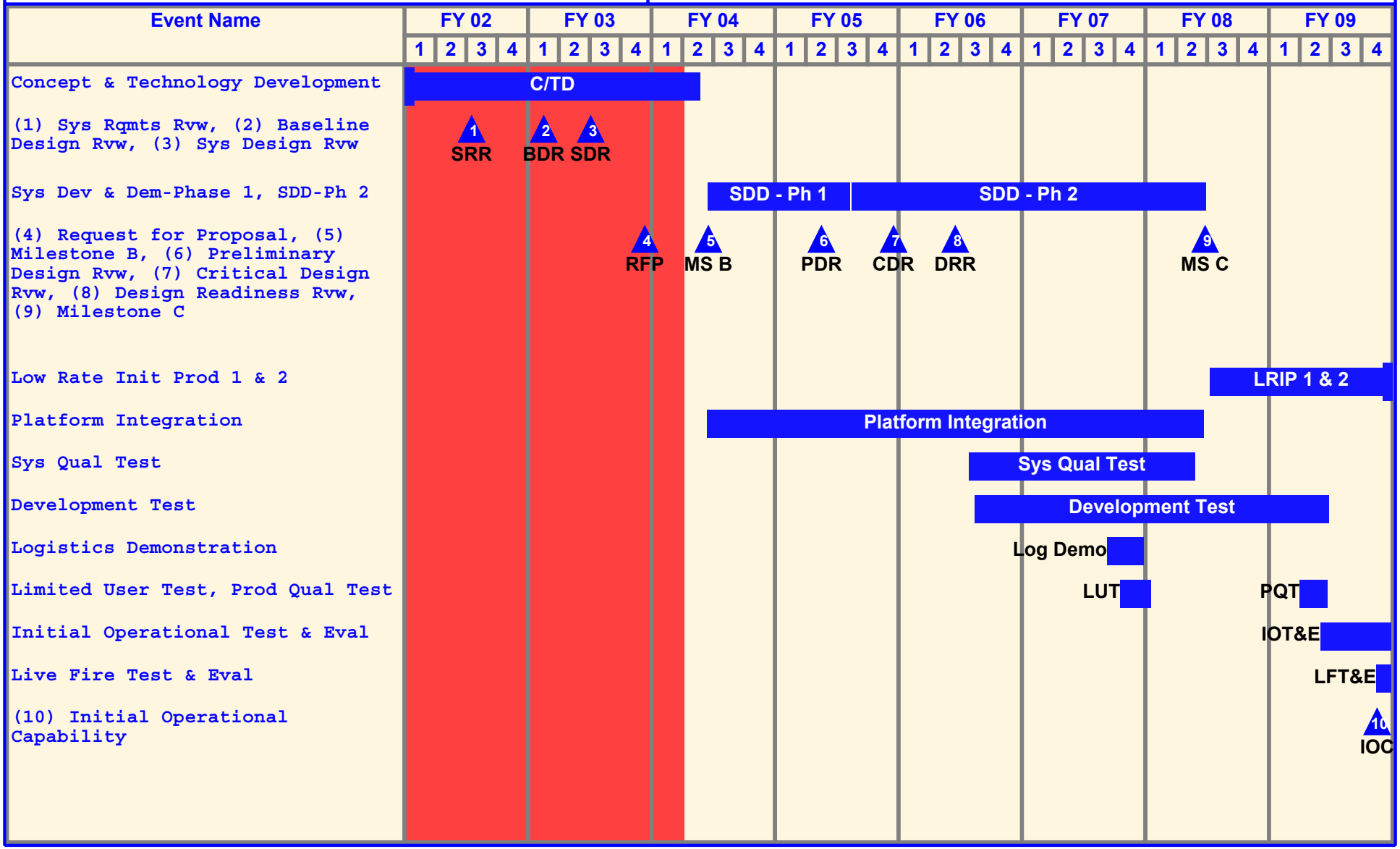

Schedule Detail (R4a Exhibit)

February 2004

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Schedule Detail	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Baseline Design Review (BDR)	1Q						
System Design Review (SDR)	3Q						
Complete Initial Performance Modeling & Virtual Prototype	3Q						
Complete Initial Design CAD/CAE	3Q						
Complete Initial Simulation of System in Battlefield	4Q						
Request for Proposal (RFP)	4Q						
Milestone B Decision		2Q					
SDD Contract Award		2Q					
Preliminary Design Review (PDR)			2Q				
Platform Integration		2Q	1-4Q	1-4Q	1-4Q	2Q	
Critical Design Review (CDR)			4Q				
Design Readiness Review (DRR)				2Q			
System Qualification				3-4Q	1-4Q	1-2Q	
Development Test				3-4Q	1-4Q	1-4Q	1-2Q
Milestone C Decision						2Q	
LRIP 1						2Q	
Logistics Demonstration					3-4Q		
Limited User Test (LUT)					4Q	1Q	
LRIP 2							2Q
Production Qualification Test (PQT)							2Q
Initial Operational Test & Evaluation (IOT&E)							3-4Q
Live Fire Test & Evaluation (LFT&E)							4Q
Initial Operational Capability (IOC)							4Q