

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603460A - Joint Air-to-Ground Missile (JAGM)			
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
JA2 JOINT AIR-TO-GROUND MISSILE (JAGM)	51690				51690

A. Mission Description and Budget Item Justification: The Joint Air-to-Ground Missile (JAGM) is an air-launched missile system that provides advanced line-of-sight (LOS) and beyond-line-of-sight (BLOS) capabilities, including precision point and fire-and-forget (active and passive) seeker targeting technologies; increased range; and increased lethality against soft and hardened moving and stationary targets. The system will be used with fixed-wing aircraft, rotary-wing aircraft, and unmanned aircraft systems (UAS).

The JAGM System will replace aviation-launched TOW, the HELLFIRE family of missiles, and the Navy's Maverick family of missiles. JAGM is a joint program with the Army, Navy and USMC that addresses rotary/fixed wing and UAS requirements. The Army is funding missile development and integration to Army unique platforms with the Navy funding their platform integration requirements. The Super Hornet (F/A 18E/F), the Apache (AH-64D), and the Super Cobra (AH-1Z) are Milestone C threshold platforms with integration occurring no later than (NLT) the end of FY13 and Initial Operational Capability (IOC) beginning NLT the end of FY16. Other threshold platforms are the Seahawk (MH-60R) and Extended Range Multi Purpose (ERMP) UAS, and an Army Light Armed Scout Helicopter. MH-60R integration occurs NLT FY14. Integration timelines for ERMP and the Light Armed Scout Helicopter are notional and will be updated prior to Milestone B as those programs mature. JAGM will increase the Warfighter's operational flexibility by effectively engaging a variety of stationary and mobile targets on the battlefield, including advanced heavy/light armored vehicles, bunkers, buildings, patrol craft, command and control vehicles, transporter/erector (e.g., SCUD) launchers, artillery systems, and radar/air defense systems. Its multi-mode seeker will provide robust capability in adverse weather, day or night, and in an obscured/countermeasure environment, against both stationary and moving targets. JAGM supports more efficient logistics for expeditionary force tailoring by replacing several missile variants with a single, interoperable weapon. The warhead is designed for high performance against both armored and non-armored targets. It also allows flexibility in the location of resupply on the battlefield, thereby minimizing the logistics burden of the combat force. The JAGM System includes missile, trainers, containers, support equipment, and launcher MODS. Six prototype missiles per contractor will be procured to support Technology Development.

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BUDGET ACTIVITY

PE NUMBER AND TITLE

4 - Advanced Component Development and Prototypes

0603460A - Joint Air-to-Ground Missile (JAGM)

B. Program Change Summary

	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	53160		
Current BES/President's Budget (FY 2010)	51690		
Total Adjustments	-1470		
Congressional Program Reductions			
Congressional Recissions			
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer	-1470		
Adjustments to Budget Years			

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COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost	
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The JAGM System will replace aviation-launched TOW, the HELLFIRE family of missiles, and the Navy's Maverick family of missiles. JAGM is a joint program with the Army, Navy and USMC that addresses rotary/fixed wing and UAS requirements. The Army is funding missile development and integration to Army unique platforms with the Navy funding their platform integration requirements. The Super Hornet (F/A 18E/F), the Apache (AH-64D), and the Super Cobra (AH-1Z) are Milestone C threshold platforms with integration occurring no later than (NLT) the end of FY13 and Initial Operational Capability (IOC) beginning NLT the end of FY16. Other threshold platforms are the Seahawk (MH-60R) and Extended Range Multi Purpose (ERMP) UAS, and an Army Light Armed Scout Helicopter. MH-60R integration occurs NLT FY14. Integration timelines for ERMP and the Light Armed Scout Helicopter are notional and will be updated prior to Milestone B as those programs mature. JAGM will increase the Warfighter's operational flexibility by effectively engaging a variety of stationary and mobile targets on the battlefield, including advanced heavy/light armored vehicles, bunkers, buildings, patrol craft, command and control vehicles, transporter/erector (e.g., SCUD) launchers, artillery systems, and radar/air defense systems. Its multi-mode seeker will provide robust capability in adverse weather, day or night, and in an obscured/countermeasure environment, against both stationary and moving targets. JAGM supports more efficient logistics for expeditionary force tailoring by replacing several missile variants with a single, interoperable weapon. The warhead is designed for high performance against both armored and non-armored targets. It also allows flexibility in the location of resupply on the battlefield, thereby minimizing the logistics burden of the combat force. The JAGM System includes missile, trainers, containers, support equipment, and launcher MODS. Six prototype missiles per contractor will be procured to support Technology Development.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Source Selection Evaluation Board (SSEB)	3200		
Contractor Establishment of Teams and Ramp-Up	31758		
Controls Establishment (Schedule and Cost Center)	4447		
Finalize Integrated Flight Simulation and Hardware in the Loop (HWIL)	6971		
Government Preparation for Integrated Baseline Review (IBR)	2124		
Software Simulation Algorithm Maturity	3190		
Total	51690		

<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE				PROJECT
4 - Advanced Component Development and Prototypes	0603460A - Joint Air-to-Ground Missile (JAGM)				JA2
Joint-Air-To-Ground Missile (JAGM) PE: 655450		118125	127439	Continuing	Continuing
Joint Air-to-Ground Missile (JAGM) SSN: C70302				Continuing	Continuing
Navy (RDTE) Joint Air-to-Ground Missile (JAGM)	11626	61757	81434	Continuing	Continuing
Navy (Procurement) Joint Air-to-Ground Missile (JAGM)				Continuing	Continuing

Comment: JAGM RDT&E funding for FY 2008 was received under Budget Activity 4, Advanced Component Development and Prototypes (ACD&P). Following solicitation and formal source selection, the government competitively awarded Fixed Price Incentive (FPI) contracts (with full cost reporting) to two contractors for the 27 month Technology Development (TD) phase with FY2008 funds. All JAGM RDT&E funding for FY 2009 and out has been established under Budget Activity 5, System Development and Demonstration.

C. Acquisition Strategy The JAGM System is an ACAT 1D Joint Army/Navy/USMC program with the Army designated as lead service. The JAGM system is a common air-to-ground precision guided missile for use by Joint Service manned and unmanned aircraft to destroy high-value stationary, moving, and relocateable land and naval targets. JAGM provides current and future aviation platforms a common, multi-mode weapon, with reactive targeting capability, which satisfies the sum of needs across the joint platforms and eliminates the requirement for separate upgrades to multiple existing missile systems. The JAGM program has four phases: a TD phase including system integration and preliminary design review (PDR), an Engineering Manufacturing, and Development (EMD) phase, a Production & Deployment (PD) phase, and an Operations & Support phase. Following solicitation and formal source selection, the government competitively awarded Fixed Price Incentive (FPI) contracts (with full cost reporting) to two contractors for the 27-month TD phase. The TD phase culminates with PDR and competitive fly-off of the contractor's prototype missiles. Approximately 22-months after TD phase contract award, TD contractors will be asked to submit proposals for the EMD and Low Rate Initial Production (LRIP) phases. A second source selection process will evaluate the contractor's TD performance and proposals for the EMD and PD phases. Offeror's plans to facilitate competition during the PD phase will be considered during the evaluation process for the EMD contract. The government plans to award one cost plus incentive fee/award fee (CPIF/AF) contract for the 48-month EMD phase, including provisions for procurement of long lead-time items to support the follow-on PD phase. Fixed Price Type contracts are planned for the PD phase (LRIP and full rate production (FRP)).

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
4 - Advanced Component Development and Prototypes			0603460A - Joint Air-to-Ground Missile (JAGM)							JA2		
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
Lockheed Martin	FPI	Orlando, Florida		24140	4Q						24140	
Raytheon	FPI	Tucson, Arizona		18000	4Q						18000	
Support Contracts	Various	Various		1375	2-4Q						1375	
Development Engineering	Various	Various		1657	2-4Q						1657	
Subtotal:				45172							45172	
Remarks: Fixed Price Incentive Fee/Award Fee (FPIF/AW)												
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
Contractor Support	Various	Various		835	2-4Q						835	
Subtotal:				835							835	
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
Other Gov Agencies	Various	Various		734	3-4Q						734	
Subtotal:				734							734	
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
System Eng/ Project Management	Various	Various		4949	2-4Q						4949	
Subtotal:				4949							4949	

ARMY RDT&E COST ANALYSIS (R3)

May 2009

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4 - Advanced Component Development and Prototypes	0603460A - Joint Air-to-Ground Missile (JAGM)							JA2
Project Total Cost:		51690						51690

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE																PROJECT															
4 - Advanced Component Development and Prototypes	0603460A - Joint Air-to-Ground Missile (JAGM)																JA2															
Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
(1) Contract Award	▲																															

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603460A - Joint Air-to-Ground Missile (JAGM)					PROJECT JA2	
<u>Schedule Detail</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
Contract Award	4Q							

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Termination Liability Funding For Major Defense Acquisition Programs, RDT&E Funding (R5)		May 2009	
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT	
4 - Advanced Component Development and Prototypes	0603460A - Joint Air-to-Ground Missile (JAGM)	JA2	
Funding in \$000			
Program	FY 2008	FY 2009	FY 2010
Joint Air-To-Ground Missile (JAGM)			
Total Termination Liability Funding:			
<p>Remarks: For the FPIF Phase I, the JAGM Prime Contract incorporates the "Limitation of Government's Obligation" clause (DFARS 252.232-7007) to limit the Government's liability. For the CPIF/AF Phase II, the JAGM Prime Contract will incorporate the "Limitation of Funds" clause (FAR 52.232-22) to limit the Government's liability. For the JAGM Program, these two clauses limit the Government's financial liability per the contract to those funds placed on contract plus any outstanding commitments plus costs associated with the orderly termination of contractual actions.</p>			