Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

PE 0605450A: Joint Air-to-Ground Missile (JAGM)

BA 5: Development & Demonstration (SDD)

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	71.760	126.895	10.000	-	10.000	10.000	9.780	-	-	Continuing	Continuing
JA6: JOINT AIR-TO-GROUND MISSILE (JAGM)	71.760	126.895	10.000	-	10.000	10.000	9.780	-	-	Continuing	Continuing

Note

FY11 - The Army decision to restructure the program to continue the JAGM Technology Development Phase has resulted in the EMD Contract not being awarded.

FY11 (-49,700) - JAGM Reprogramming Action, Omnibus 2011, DoD Serial Number FY 11-21 PA

FY13 (-126,284) - Continuation of the JAGM Program Technology Development Phase.

A. Mission Description and Budget Item Justification

The Joint Air-to-Ground Missile (JAGM) is an air-launched missile system that provides the Joint warfighter advanced targeting capabilities beyond currently fielded legacy missile variants. The funding allows continuation of the Technology Development phase to focus on affordability and risk reduction prior to additional investment in the Engineering and Manufacturing Development phase.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	130.340	127.095	136.284	-	136.284
Current President's Budget	71.760	126.895	10.000	-	10.000
Total Adjustments	-58.580	-0.200	-126.284	-	-126.284
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-4.291	-			
SBIR/STTR Transfer	-3.788	-			
 Adjustments to Budget Years 	-	-	-126.284	-	-126.284
Other Adjustments 1	-0.801	-	-	-	-
 Other Adjustments 2 	-49.700	-	-	-	-
Other Adjustments 3	-	-0.200	-	-	-

Exhibit R-2A, RDT&E Project Jus	stification: Pl	3 2013 Army							DAIE: Feb	ruary 2012	
APPROPRIATION/BUDGET ACTI 2040: Research, Development, Tes BA 5: Development & Demonstration	st & Evaluatio	n, Army			IOMENCLA DA: Joint Air-		<i>Missile</i>	PROJECT JA6: JOINT (JAGM)	AIR-TO-GF	SILE	
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
JA6: JOINT AIR-TO-GROUND MISSILE (JAGM)	71.760	126.895	10.000	-	10.000	10.000	9.780	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

The Joint Air-to-Ground Missile (JAGM) is an air-launched missile system that provides the Joint warfighter advanced targeting capabilities beyond currently fielded legacy missile variants. The funding allows continuation of the Technology Development phase to focus on affordability and risk reduction prior to additional investment in the Engineering and Manufacturing Development phase.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Software Simulation Algorithm Maturity	6.297	-	-
Articles	0		
Description: The program will use a Modeling and Simulation (M&S) strategy that provides an Integrated Flight Simulation (IFS), a software test station, and a high fidelity hardware in the loop simulation facility.			
FY 2011 Accomplishments:			
The IFS results were used for analysis in support of the JAGM AOA conducted by TRAC, sensitivity studies in support of CAIV analysis for millimeter wave performance, and common scene generation updates.			
Title: Technology Development Phase Exit Criteria	5.047	-	
Articles	0		
Description: The JAGM Product Management Office are developing exit criteria appropriate to the next phase or effort of the program. The OIPT will review the proposed exit criteria and make a recommendation to the Milestone Decision Authority.			
FY 2011 Accomplishments:			
Completing JAGM regulatory and statutory documentation in support of TD exit criteria and Source Selection Evaluation Board (SSEB) closeout.			
Title: Development Activities for Subsystem Design	34.911	-	
Articles	: 0		

PE 0605450A: *Joint Air-to-Ground Missile (JAGM)* Army

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Fel	oruary 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0605450A: Joint Air-to-Ground Missile (JAGM)	PROJECT JA6: JOIN (JAGM)	T NT AIR-TO-G	ROUND MIS	SILE
B. Accomplishments/Planned Programs (\$ in Millions, Artic	le Quantities in Each)		FY 2011	FY 2012	FY 2013
Description: The JAGM prime contractors, with government ov and testing activities.	ersight, will initiate major component subsystem design	reviews			
FY 2011 Accomplishments: The JAGM Product Management Office is initiating Cost as An Technology Development Phase.	Independent Variable (CAIV) trades in support of an ext	ended			
Title: Continued Technology Development Phase		Articles:	25.505 0	-	-
Description: The Technology Development phase will design, I validate that both the seeker capabilities and affordability meet		ors to			
FY 2011 Accomplishments: Develop and provide demonstration of an improved capabilities UAS lethality against HVT and Fire & Forget).	over legacy laser missiles (countermeasure, adverse w	eather,			
Title: Delta PDR and Component Qualification		Articles:	-	55.105 0	-
Description: A cornerstone of the extended TD phase includes analysis on requirements prior to entering CDR. Component que system's design maturity and reduce risk for the subsystem quarteristics.	alification will give the JAGM program confidence in the				
FY 2012 Plans: Conduct component affordability analysis, order hardware, and	initiate component qualification efforts.				
Title: Engineering Design Review & Subsystem Qualification		Articles:	-	47.803 0	-
Description: Complete detailed engineering design and develor reviews, and initiate subsystem qualification testing with empha		design			
FY 2012 Plans: Purchase subsystem hardware and initiate component and subs	system design reviews, testing, and platform integration	activities.			
Title: Integrated Baseline Review (IBR)	<u> </u>	Articles:	-	3.845 0	-

PE 0605450A: *Joint Air-to-Ground Missile (JAGM)* Army

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army			DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0605450A: Joint Air-to-Ground Missile (JAGM)	PROJEC JA6: JOII (JAGM)		ROUND MIS	SILE
B. Accomplishments/Planned Programs (\$ in Millions, Article	e Quantities in Each)		FY 2011	FY 2012	FY 2013
Description: JAGM Product Office and Prime Contractor will revork (SOW). The JAGM IBR team and prime will develop and if JAGM technical risk and allocation of resources necessary to me FY 2012 Plans: JAGM IBR team conducts Performance Measurement Baseline in Scheduled. The team will conduct reviews with the prime contract.	mplement the technical plan. This will lead to an assest the technical requirements within the schedule. reviews. The reviews will tracks to the Budgeted Cost of	ssment of			
Title: Sub-System Qualification		Articles:	-	20.142	-
Description: The JAGM PO will initiate subsystem performance performance verification of the system.	and qualification testing of the JAGM missile subsyste			O	
FY 2012 Plans: The JAGM Product Office will support affordability performance a	and qualification testing at the subsystem level.				
Title: Affordability Activities to Support Critical Design Review (C	CDR)		-	-	10.000
Description: During the 27-month TD phase affordability extens subsystem design reviews, testing, and platform affordability actions.	· · · · · · · · · · · · · · · · · · ·	omponent			
FY 2013 Plans: The Product Management Office continues affordability design deleading to an Affordability Design Review and Army Configuration	· · · · · · · · · · · · · · · · · · ·	sting			
	Accomplishments/Planned Programs	s Subtotals	71.760	126.895	10.000

C. Other Program Funding Summary (\$ in Millions)

			FY 2013	FY 2013	F					Cost 10	
<u>Line Item</u>	FY 2011	FY 2012	Base	<u>000</u>	<u>Total</u>	FY 2014	FY 2015	FY 2016	FY 2017	Complete	Total Cost
• 0605450N: <i>Navy RDTE</i>	80.911	108.395								Continuing	Continuing

D. Acquisition Strategy

The JAGM program is a restructured pre Major Defense Acquisition Program (MDAP) Army led effort to reduce risk and increase affordability through continuation of the Technology Development phase. The JAGM system is a common air-to-ground precision guided missile for use by Joint Service manned and unmanned aircraft. The JAGM program will extend the Technology Development (TD) Phase 27 months to address affordability and reexamine requirements with the warfighter. The

PE 0605450A: *Joint Air-to-Ground Missile (JAGM)* Army

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army	DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0605450A: Joint Air-to-Ground Missile	JA6: JOINT	AIR-TO-GROUND MISSILE
BA 5: Development & Demonstration (SDD)	(JAGM)	(JAGM)	

continued TD Phase will include a delta-Preliminary Design Review (PDR), developmental testing, qualification, and design reviews of the guidance section, and U.S.

Government led all-up round qualification. After the completion of the design reviews in FY13, a Configuration Steering Board will be held to review capabilities des for the first JAGM increment developed and fielded in the Engineering and Manufacturing Development phase. At the conclusion of all qualification testing, the JAG Program will conduct government controlled ground flight testing to validate all up round integration. The government plans to award two fixed-priced contracts to the both prime contractors from the previous TD Phase that concluded in December 2010.	ired M
E. Performance Metrics	
Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010	٥.

PE 0605450A: Joint Air-to-Ground Missile (JAGM) Army

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Army **DATE:** February 2012 APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 2040: Research, Development, Test & Evaluation, Army PE 0605450A: Joint Air-to-Ground Missile JA6: JOINT AIR-TO-GROUND MISSILE BA 5: Development & Demonstration (SDD) (JAGM) (JAGM) FY 2013 FY 2013 FY 2013 Management Services (\$ in Millions) FY 2012 oco Base Total **Total Prior** Contract Target Method Performing Years Award Award Award Cost To Value of **Cost Category Item** Complete & Type **Activity & Location** Cost Cost Date Cost Date Cost Date **Total Cost** Contract Cost System Eng/ Project C/FP Various:Performers 22.633 7.520 4.740 4.740 0.000 34.893 0.000 Management Subtotal 22.633 7.520 4.740 4.740 0.000 34.893 0.000 **FY 2013** FY 2013 FY 2013 **Product Development (\$ in Millions)** FY 2012 Base oco Total **Total Prior** Contract Target Method Performing Years Award Award Award **Cost To** Value of **Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete **Total Cost** Contract **TD Prime Contract** C/CPIF TD:Prime Contract 271.113 98.436 0.000 369.549 0.000 Support Contracts C/FP Various:Performers 25.232 7.542 _ 0.000 32.774 0.000 C/FP Various:Performers 5.165 23.728 **Development Engineering** 15.135 3.428 3.428 0.000 0.000 Subtotal 311.480 111.143 3.428 3.428 0.000 426.051 0.000 **FY 2013** FY 2013 FY 2013 Test and Evaluation (\$ in Millions) FY 2012 Base oco Total Contract **Total Prior** Target Method Performing Years Award Award **Cost To** Value of Award **Total Cost Cost Category Item** & Type **Activity & Location** Cost Cost Date Cost Date Cost Date Cost Complete Contract C/FP 13 063 8 232 23 127 Other Gov Agencies Various Performers 1 832 1 832 0.000 0.000 Subtotal 13.063 8.232 1.832 1.832 0.000 23.127 0.000 **Total Prior** Target Years FY 2013 FY 2013 FY 2013 Cost To Value of Cost FY 2012 oco Total Complete **Total Cost** Contract Base 347.176 126.895 10.000 10.000 0.000 484.071 0.000 **Project Cost Totals**

Remarks

Army

PE 0605450A: Joint Air-to-Ground Missile (JAGM)

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0605450A: Joint Air-to-Ground Missile (JAGM)	PROJECT JA6: JOINT AIR-TO-GROUND MISSILE (JAGM)

		FY	2011			FY 2012		FY 2013					FY 2014			FY 2015				FY 2016				FY 2017			,	
	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
Contract Award										,																		
Test Events																												
Milestone Decision																												

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army	DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0605450A: Joint Air-to-Ground Missile	JA6: JOINT	AIR-TO-GROUND MISSILE
BA 5: Development & Demonstration (SDD)	(JAGM)	(JAGM)	

Schedule Details

	Start		End	
Events	Quarter	Year	Quarter	Year
Contract Award	4	2012	4	2012
Test Events	3	2013	4	2014
Milestone Decision	4	2014	4	2014