Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

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

BA 5: System Development & Demonstration (SDD)

		. ,										
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	123.100	10.000	15.127	-	15.127	91.571	68.793	23.784	4.953	Continuing	Continuing
JA6: JOINT AIR-TO-GROUND MISSILE (JAGM)	-	123.100	10.000	15.127	-	15.127	91.571	68.793	23.784	4.953	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Note

FY14 increase supports continuation of the JAGM TD Phase.

A. Mission Description and Budget Item Justification

The Joint Air-to-Ground Missile (JAGM) System will provide an air-to-surface, precision, standoff strike capability. The JAGM system will enable war-fighters to attack critical, high value, fixed and moving/fleeting targets, day or night, in battlefield limited visibility conditions, adverse weather and against countermeasures. The purpose of the JAGM Technology Demonstration (TD) phase is to address affordability and reduce overall risk prior to entering the Engineering and Manufacturing Development (EMD) phase, by adopting an incremental strategy for development and production of the Guidance Section.

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	126.895	10.000	10.000	-	10.000
Current President's Budget	123.100	10.000	15.127	-	15.127
Total Adjustments	-3.795	0.000	5.127	-	5.127
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-3.795	-			
Adjustments to Budget Years	-	-	5.127	-	5.127

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

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^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Ju	ustification	: PB 2014 A	Army							DATE: Apr	il 2013	
APPROPRIATION/BUDGET ACT 2040: Research, Development, To BA 5: System Development & De	est & Evalua					NOMENCL 50A: Joint A		d Missile	PROJECT JA6: JOIN (JAGM)	T AIR-TO-G	ROUND M	ISSILE
COST (\$ in Millions)	All Prior Years		FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
JA6: JOINT AIR-TO-GROUND MISSILE (JAGM)	-	123.100	10.000	15.127	-	15.127	91.571	68.793	23.784	4.953	Continuing	Continuing
Quantity of RDT&E Articles												

^{*}FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Note

Army

Not applicable for this item.

A. Mission Description and Budget Item Justification

The Joint Air-to-Ground Missile (JAGM) System will provide an air-to-surface, precision, standoff strike capability. The JAGM system will enable war-fighters to attack critical, high value, fixed and moving/fleeting targets, day or night, in battlefield limited visibility conditions, adverse weather and against countermeasures. The purpose of the JAGM Technology Demonstration (TD) phase is to address affordability and reduce overall risk prior to entering the Engineering and Manufacturing Development (EMD) phase, by adopting an incremental strategy for development and production of the Guidance Section.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Preliminary Design Review (PDR) and Component Qualification	18.465	0.000	0.000
Articles:	0		
Description: Develop design modifications on the original TD phase preliminary design for cost and risk reduction and conduct PDR.			
FY 2012 Accomplishments: Start/Complete design modifications on the original TD phase preliminary design for cost and risk reduction and conduct PDR.			
Title: Final Design and Design Verification Test	30.776	0.000	0.000
Articles:	0		
Description: Develop a detailed engineering design and conduct activities to support a Critical Design Review (CDR), and conduct design verification testing to confirm readiness to conduct CDR.			
FY 2012 Accomplishments:			

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

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^{##} The FY 2014 OCO Request will be submitted at a later date

		DATE: A	April 2013	
R-1 ITEM NOMENCLATURE PE 0605450A: Joint Air-to-Ground Missile (JAGM)	JA6: J	OINT AIR-TO	-GROUND N	MISSILE
antities in Each)		FY 2012	FY 2013	FY 2014
es to support a CDR, and conduct design verification te	esting			
Ar	ticles:	24.620 0	0.000	0.000
nal design and technical data package for compliance tion testing.	with			
al design and technical data package for compliance w tion testing.	vith			
Ar	ticles:	49.239 0	0.000	0.000
xecute subsystem performance and qualification testin	g of			
cute subsystem performance and qualification testing.				
Ar	ticles:	0.000	5.000 0	0.000
d qualification results and prepare and present possibl	е			
uirements changes for cost reduction to decision make	rs.			
(MS) B Preparation	ticles:	0.000	5.000 0	0.000
r an ASARC & MS B decision.				
	PE 0605450A: Joint Air-to-Ground Missile (JAGM) Intities in Each) Is to support a CDR, and conduct design verification to the standard design and technical data package for compliance with intesting. Are recute subsystem performance and qualification testing. Are defined qualification results and prepare and present possible Product Teams (IPTs) to prepare and conduct the final irrements changes for cost reduction to decision make tents prior to EMD by focusing on technical and operating duce cost/schedule risk. (MS) B Preparation Are conduct Teams (IPTs) to prepare and conduct the final duce cost/schedule risk.	PE 0605450A: Joint Air-to-Ground Missile (JAGM) Intities in Each) Is to support a CDR, and conduct design verification testing Articles: Inal design and technical data package for compliance with ion testing. Articles: Index: Include: Incl	R-1 ITEM NOMENCLATURE PE 0605450A: Joint Air-to-Ground Missile (JAGM) Intities in Each) Intities intities in Each) Intities in Each) Intities in Each) Intities inti	PE 0605450A: Joint Air-to-Ground Missile (JAGM) Intities in Each) Is to support a CDR, and conduct design verification testing Articles: Intities in Each) Is to support a CDR, and conduct design verification testing Articles: Intities in Each) Is to support a CDR, and conduct design verification testing Articles: Intities in Each) Is to support a CDR, and conduct design verification testing Articles: Intities in Each) Is to support a CDR, and conduct design verification testing Articles: Intities in Each) Is to support a CDR, and conduct design verification testing Articles: Intities in Each) Is to support a CDR, and conduct design verification testing Articles: Intite in Each) Is to support a CDR, and conduct design verification testing Articles: Intite in Each) Is to support a CDR, and conduct design verification testing Articles: Intite in Each) Is to support a CDR, and conduct design verification testing Articles: Intite in Each) Is to support a CDR, and conduct design verification testing Articles: Intite in Each) Is to support a CDR, and conduct design verification testing Articles: Intite in Each) Is to support a CDR, and conduct design verification testing Articles: Intite in Each) Is to support a CDR, and conduct design verification testing Is to support a CDR, and conduct design verification testing Articles: In Support a CDR, and conduct design verification testing In Support a CDR, and conduct design verification testing Articles: In Support a CDR, and conduct design verification testing Articles: In Support a CDR, and conduct design verification testing Articles: In Support a CDR, and conduct design verification testing Articles: In Support a CDR, and conduct design verification testing Articles: In Support a CDR, and conduct design verification testing Articles: In Support a CDR, and conduct design verification testing In Support a CDR, and conduct design verification testing Articles: In Support a CDR, and conduct design verification testing Articles

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

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Exhibit R-2A, RDT&E Project J	Justification: PB 20	14 Army							DATE: A	pril 2013	
APPROPRIATION/BUDGET AC 2040: Research, Development, BA 5: System Development & Development	Test & Evaluation, Ar	rmy				CLATURE nt Air-to-Gro	und Missile	PROJE JA6: JC (JAGM)	INT AIR-TO	-GROUND N	MISSILE
B. Accomplishments/Planned	Programs (\$ in Mill	ions, Article	Quantit	ies in Each)					FY 2012	FY 2013	FY 2014
FY 2013 Plans: The JAGM Product Office will proequired by DoDI 5000.02 including (TEMP), Program Protection Plan (LCSP).	de the Acquisition Str an (PPP), Program E	rategy, Syster Invironment, S	n Engine	eering Plan (SEP), Test	and Evaluati	on Master Pl	an			
Title: All Up Round (AUR) Integration: The JAGM Production Qualification testing.		•	uidance	Section to the	ne legacy m	issile bus an	d perform Al	JR	0.000	0.000	10.20
FY 2014 Plans: The JAGM Product Office will intesting. The required testing included and use of the Advanced Multi-scene generator to develop, evaluations.	cludes Environmental spectral Simulation T	I, Electromagi est Acceptan	netic Env ce Resou	vironmental urce (AMST	Effects (E3) AR) Facility,	Tower/Capt which uses	ive Flight Te	sting,			
Title: MS B Decision Preparation	n								0.000	0.000	4.92
Description: The JAGM Product FY 2014 Plans: The JAGM Product Office will prrequirements established under	repare documentation	n for a MS B	decision.					3.			
				Accon	plishment	s/Planned P	rograms Su	btotals	123.100	10.000	15.12
C. Other Program Funding Sur Line Item • 0605450N: Navy RDTE • C7030200: JAGM Missile Procurement	• •		<u>/ 2014</u> Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016 5.000	FY 2017 52.000		Cost To Complete Continuing Continuing	Total Cos Continuin

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

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0605450A: Joint Air-to-Ground Missile	JA6: JOIN	T AIR-TO-GROUND MISSILE
BA 5: System Development & Demonstration (SDD)	(JAGM)	(JAGM)	

D. Acquisition Strategy

The JAGM program is an ACAT-1C pre Major Defense Acquisition Program (MDAP) Army led effort to reduce risk and increase affordability through continuation of the TD phase. The JAGM system is an air-to-ground precision guided missile for use by Joint Service rotary wing and unmanned aircraft systems. The TD phase will include a PDR, developmental testing, qualification and delivery of the JAGM guidance sections to the U.S. Government. The U.S. Government will conduct AUR integration, environmental testing and conduct ground launched flight tests. The government awarded two fixed-priced contracts to two competing contractors for parallel efforts to qualify and deliver JAGM Guidance Sections.

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 March 1997 and 1997 are supported by the Performance Budget States and States are supported by the Performance Budget States and States are supported by the Performance Budget States and States are supported by the Performance Budget States and States are supported by the Performance Budget States are supported by the Performance Budget States and States are supported by the Performance Budget States are supported by the Performance	lay 2010.

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

Army

DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army 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 (JAGM) BA 5: System Development & Demonstration (SDD) (JAGM) FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) oco FY 2012 FY 2013 Base Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type **Activity & Location** Years Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost System Eng/ Project C/LH Various:Performers 22.633 7.225 Dec 2011 4.740 Dec 2012 6.053 Dec 2013 6.053 0.000 40.651 0.000 Management Subtotal 22.633 7.225 4.740 6.053 0.000 6.053 0.000 40.651 0.000 FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** FY 2012 FY 2013 Base oco Total Contract Target Method Performing All Prior Award Award Award Award Cost To Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract **TD Prime Contract** C/FFP **TD:Prime Contract** 271.113 100.206 Aug 2012 371.319 0.000 0.000 Defense Ordnance Technology Rocket Motor IM Qual C/CPFF Consortium 25.232 5.302 Sep 2012 0.000 30.534 0.000 (DOTC):Picatinny Arsenal, NJ Defense Ordnance Technology Electro-Mechanical Control C/CPFF Consortium 0.000 4.033 Sep 2012 0.000 4 033 0.000 Actuator System (EMCAS) (DOTC):Picatinny Arsenal, NJ Defense Ordnance Technology Integrated Warhead C/CPFF Consortium 0.000 2.982 Sep 2012 0.000 2.982 0.000 (DOTC):Pictanny Arsenal, NJ **Development Engineering** C/LH 2.509 Feb 2012 3.428 Feb 2013 1.979 Feb 2014 Various:Performers 15.135 1.979 0.000 23.051 0.000 1.979 0.000 1.979 Subtotal 311.480 115.032 3.428 0.000 431.919 0.000 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 Base oco Total Contract Target Method All Prior **Cost To** Value of Performing Award Award Award Award Total **Cost Category Item** & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract

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

C/LH

Various:Performers

13 063

0.843 Dec 2011

Other Gov Agencies

Army

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1 832 Dec 2012

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7 095 Dec 2013

7 095

0.000

22 833

0.000

DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)

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

R-1 ITEM NOMENCLATURE

JA6: JOINT AIR-TO-GROUND MISSILE

PROJECT

(JAGM)

est and Evaluation (\$ in Milli	ons)		FY 2	2012	FY 2	2013		2014 ase		2014 CO	FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contrac
		Subtotal	13.063	0.843		1.832		7.095		0.000		7.095	0.000	22.833	0.000
			All Prior Years	FY 2	2012	FY 2	2013		2014 ase		2014 CO	FY 2014 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	347.176	123.100		10.000		15.127		0.000		15.127	0.000	495.403	0.00

Remarks

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

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 A	rmy																		DA	ГΕ:	Apri	120	13		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, A BA 5: System Development & Demonstration (SDD)	•					PE		5450	OME A: Jo				E Fround	' Mi	issile	JΑ	ROJE A6: JO AGM	OINT		₹- <i>T</i> (D-GI	ROL	JND	MIS	SIL
		Y 20	 4 1	-	Y 201	3	1	FY 2	2014	4	4	FY 2	2015	4		Y 201	_	1	FY 2	201	_	1	FY 2	2018	3

		FY	201	2		FY	2013	3		FY	2014	4		FY	201	5		FY	201	6		FY	201	7		FY	2018	В
	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							'						'															
PDR																												
Final Design and Design Verification Test																												
CDR																												
Component Qualification Testing																												
CSB																												
AUR																												
MS Decision Preparation																												
MS B Decision																												
EMD																												
MS C Decision																												

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0605450A: Joint Air-to-Ground Missile	JA6: JOIN	T AIR-TO-GROUND MISSILE
BA 5: System Development & Demonstration (SDD)	(JAGM)	(JAGM)	

Schedule Details

Events	Si	Start		End	
	Quarter	Year	Quarter	Year	
Contract Award	4	2012	1	2013	
PDR	2	2013	3	2013	
Final Design and Design Verification Test	2	2013	1	2014	
CDR	1	2014	2	2014	
Component Qualification Testing	2	2014	4	2014	
CSB	4	2014	4	2014	
AUR	3	2014	3	2015	
MS Decision Preparation	1	2013	2	2015	
MS B Decision	3	2015	3	2015	
EMD	3	2015	3	2017	
MS C Decision	3	2017	3	2017	