Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army

Date: March 2014

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 5: System

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

Development & Demonstration (SDD)

Army

COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO <sup>#</sup>	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	9.686	15.119	83.838	-	83.838	67.757	23.451	2.420	0.005	Continuing	Continuing
JA6: Joint Air-To-Ground Missile (JAGM)	-	9.686	15.119	83.838	-	83.838	67.757	23.451	2.420	0.005	Continuing	Continuing

<sup>\*</sup> The FY 2015 OCO Request will be submitted at a later date.

### A. Mission Description and Budget Item Justification

The Joint Air-to-Ground Missile (JAGM) program is an Army led, ACAT 1C program with joint interest with the U.S. Marine Corps (USMC) and U.S. Navy to develop the next generation of aviation launched missile to replace the HELLFIRE laser and Longbow radar missiles. JAGM can overcome adverse weather, jamming and advanced countermeasures in both land and maritime combat environments.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	10.000	15.127	91.571	-	91.571
Current President's Budget	9.686	15.119	83.838	-	83.838
Total Adjustments	-0.314	-0.008	-7.733	-	-7.733
<ul> <li>Congressional General Reductions</li> </ul>	-0.013	-0.008			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	_	-			
Congressional Adds	-	-			
Congressional Directed Transfers	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.301	-			
<ul> <li>Adjustments to Budget Years</li> </ul>	-	-	-7.733	-	-7.733

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

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army											Date: March 2014			
Appropriation/Budget Activity 2040 / 5		, , ,					Number/Name) t Air-To-Ground Missile (JAGM)							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost		
JA6: Joint Air-To-Ground Missile (JAGM)	-	9.686	15.119	83.838	-	83.838	67.757	23.451	2.420	0.005	Continuing	Continuing		
Quantity of RDT&E Articles	-	-	-	-	-	_	-	-	-	-				

<sup>\*</sup>The FY 2015 OCO Request will be submitted at a later date.

#### **Note**

Not applicable for this item.

## A. Mission Description and Budget Item Justification

The Joint Air-to-Ground Missile (JAGM) program is an Army led, ACAT 1C program with joint interest with the U.S. Marine Corps (USMC) and U.S. Navy to develop the next generation of aviation launched missile to replace the HELLFIRE laser and Longbow radar missiles. JAGM can overcome adverse weather, jamming and advanced countermeasures in both land and maritime combat environments.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Preliminary Design Review (PDR)	5.000	-	-
Articles:	-	-	-
Description: The JAGM Product Office will review the Preliminary Design and Design Verification Test results.			
FY 2013 Accomplishments:			
The JAGM Product Office and contractors prepared and conducted preliminary design review and design verification testing.			
Results indicated the system is ready to proceed into detailed design and can meet stated performance requirements within cost and schedule.			
Title: Milestone (MS) B Preparation	4.686	4.919	11.238
Articles:	-	-	-
Description: The JAGM Product Office will prepare documentation for MS B decision.			
FY 2013 Accomplishments:			
The JAGM Product Office began preparing documentation for MS B.			
FY 2014 Plans:			
The JAGM Product Office will continue to prepare documentation for a MS B.			
FY 2015 Plans:			

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

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014					
Appropriation/Budget Activity 2040 / 5		Project (Number/Name) JA6 / Joint Air-To-Ground Missile (JAGN					
B. Accomplishments/Planned Programs (\$ in Millions, Article	Quantities in Each)	FY 2013	FY 2014	FY 2015			
The JAGM Product Office will complete documentation for MS B a will conduct a Source Selection Evaluation Board (SSEB) in respo		ice					
Title: Critical Design Review (CDR), Component Qualification Tes	ting (CQT), System Integration and Qualification Testing  Artic	eles: -	10.200	16.400 -			
<b>Description:</b> The JAGM Product Office will integrate the JAGM Graystem Qualification testing.	uidance Section to the HELLFIRE missile backend and perfo	orm					
FY 2014 Plans: The CDR and CQT will be completed in FY 14. The JAGM Product HELLFIRE missile backend and perform System Qualification Test Electromagnetic Environmental Effects (E3), Tower/Captive Flight facilities to evaluate missile performance.	ting. The required testing includes Temperature and Vibration	on,					
FY 2015 Plans: The JAGM Product Office and prime contractor will continue Syste Flight Testing. The Government will conduct ground launched flight							
Title: Engineering, Manufacturing & Development (EMD) Contract	Award	-	-	38.20			
<b>Description:</b> The JAGM prime contractor will conduct qualification Developmental and Operational Testing. The prime contractor will AH-64 Longbow Apache.		е					
FY 2015 Plans: The JAGM prime contractor will establish subcontracts, procure has contractor will support airworthiness qualification of the JAGM miss	·	me					
Title: System Critical Design Review (CDR)		-	-	6.000			
<b>Description:</b> System CDR occurs in the EMD phase. Assess the Ensures that each item in the product baseline has been captured		ons.					
FY 2015 Plans: The JAGM Product Office and the prime contractor will prepare for	and conduct the JAGM System CDR.						
Title: Engineering, Manufacturing & Development (EMD) Aircraft C	Qualification and Missile Developmental Testing	-	-	12.000			

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

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 5	PE 0605450A I Joint Air-to-Ground Missile	JA6 I Joint	Air-To-Ground Missile (JAGM)
	(JAGM)		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: The Government will conduct system developmental testing and aircraft qualification testing.			
FY 2015 Plans: The JAGM Product Office will conduct warhead lethality testing, integrated flight simulations, captive carry testing and missile flight testing. The JAGM Product Office, platform product office and platform prime contractor will conduct aircraft qualification testing. Test data and interface requirements will support initial airworthiness qualification required for testing on AH-64 Longbow Apache.			
Accomplishments/Planned Programs Subtotals	9.686	15.119	83.838

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

			FY 2015	FY 2015	FY 2015					Cost To	
<u>Line Item</u>	FY 2013	FY 2014	<b>Base</b>	<u>000</u>	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	Total Cost
<ul> <li>C7030200: JAGM Missile</li> </ul>	-	-	-	-	-	4.961	51.588	71.955	110.908	Continuing	Continuing

Procurement; SSN C7030200

#### Remarks

## D. Acquisition Strategy

The JAGM Acquisition Strategy is being updated to define the program's EMD phase and Low Rate Initial Production (LRIP) required to achieve Initial Operational Capability (IOC) in FY18 and Full Operational Capability (FOC) in FY22. The Army funded JAGM EMD phase consists of qualifying the JAGM production line and qualification on the AH-64 Longbow Apache. The Army will demonstrate all performance requirements for the JAGM system including maritime capabilities prior to MS C and Full Rate Production decisions.

### E. Performance Metrics

N/A

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

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army

Date: March 2014

Appropriation/Budget Activity

2040 / 5

R-1 Program Element (Number/Name)
PE 0605450A I Joint Air-to-Ground Missile
(JAGM)

**Project (Number/Name)**JA6 *I Joint Air-To-Ground Missile (JAGM)* 

Management Servic	Management Services (\$ in Millions)				2013	FY 2	2014	FY 2 Ba	2015 ise	FY 2		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Eng/ Project Management	C/LH	Various : Performers	29.858	4.426	Dec 2012	6.045	Dec 2013	20.070	Nov 2014	-		20.070	-	60.399	-
	<del>`</del>	Subtotal	29.858	4.426		6.045		20.070		-		20.070	-	60.399	-

Product Developmen	Product Development (\$ in Millions)			FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
TD Prime Contract	C/FFP	TD : Prime Contract	371.319	-		-		8.568	Nov 2014	-		8.568	-	379.887	-
Rocket Motor IM Qual	C/CPFF	Defense Ordnance Technology Consortium (DOTC) : Picatinny Arsenal, NJ	30.534	-		-		-		-		-	-	30.534	-
Electro-Mechanical Control Actuator System (EMCAS)	C/CPFF	Defense Ordnance Technology Consortium (DOTC) : Picatinny Arsenal, NJ	4.033	-		-		-		-		-	-	4.033	-
Integrated Warhead	C/CPFF	Defense Ordnance Technology Consortium (DOTC) : Picatinny Arsenal, NJ	2.982	-		-		-		-		-	-	2.982	-
Development Engineering	C/LH	Various : Performers	17.644	3.428	Feb 2013	1.979	Feb 2014	-		-		-	-	23.051	-
EMD Prime Contract	TBD	TBD; : TBD	0.000	-		-		43.200	May 2015	-		43.200	-	43.200	-
		Subtotal	426.512	3.428		1.979		51.768		-		51.768	-	483.687	-

#### Remarks

(C / FFP) - Competitive / Firm Fixed Price

(C / CPFF) - Competitive / Cost-Plus Fixed Fee

(C / LH) - Labor Hour

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

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605450A I Joint Air-to-Ground Missile (JAGM)	, ,	umber/Name) Air-To-Ground Missile (JAGM)

Test and Evaluation (\$ in Millions)			FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Gov Agencies	C/LH	Various : Performers	13.906	1.832	Dec 2012	7.095	Dec 2013	12.000	Nov 2014	-		12.000	-	34.833	-
		Subtotal	13.906	1.832		7.095		12.000		-		12.000	-	34.833	-

	Prior Years	FY 2	013	FY 2	014	FY 20 Bas	-	FY 2015 OCO	FY 2015 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	470.276	9.686		15.119		83.838		-	83.838	-	578.919	-

Remarks

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

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(JAGM)	PE 0605450A I Joint Air-to-Ground Missile JA6 I Joint Air-To-Ground Missile (JAGM)  FY 2013 FY 2014 FY 2015 FY 2016 FY 2017 FY 2018 FY 2019
PDR Final Design and Design Verification Test  CDR Component Qualification Testing System Qualification Testing MS Decision Preparation  MS B Decision	
PDR Final Design and Design Verification Test  CDR Component Qualification Testing System Qualification Testing MS Decision Preparation MS B Decision	
Final Design and Design Verification Test  CDR  Component Qualification Testing  System Qualification Testing  MS Decision Preparation  MS B Decision	
CDR Component Qualification Testing System Qualification Testing MS Decision Preparation MS B Decision	
Component Qualification Testing  System Qualification Testing  MS Decision Preparation  MS B Decision	
System Qualification Testing  MS Decision Preparation  MS B Decision	
MS Decision Preparation  MS B Decision	
MS B Decision	
<u> </u>	
EMD	
MS C Decision	

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
1	,	- , (	umber/Name) : Air-To-Ground Missile (JAGM)

# Schedule Details

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