Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 5: System

PE 0605450N I Joint Air-to-ground Missile (JAGM)

Development & Demonstration (SDD)

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	205.820	4.757	6.300	25.898	-	25.898	19.798	8.999	4.399	0.003	Continuing	Continuing
2211: Joint Air-to-Ground Missile	205.820	4.757	6.300	25.898	-	25.898	19.798	8.999	4.399	0.003	Continuing	Continuing

A. Mission Description and Budget Item Justification

Joint Air-to-Ground Missile (JAGM) is an Army-led close-air-support missile program that will utilize multi-mode seeker technology and be employed against land and maritime stationary and moving targets. JAGM will provide an air launched missile system that provides advanced Line-of-Sight and Beyond Line-of-Sight capabilities, including precision point targeting and fire and forget seeker technologies, and increased lethality against soft and hardened moving and stationary targets. Its multi-mode seeker will provide robust capability in adverse weather, day or night, and in an obscured/countermeasure environments. The Navy's threshold platform for JAGM is the AH-1Z. The JAGM system includes the missile, trainers, containers, support equipment and the M-299 launcher.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	6.300	25.900	-	25.900
Current President's Budget	4.757	6.300	25.898	-	25.898
Total Adjustments	4.757	-	-0.002	-	-0.002
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	_			
 Reprogrammings 	4.757	-			
SBIR/STTR Transfer	-	-			
 Program Adjustments 	-	_	-25.900	-	-25.900
 Rate/Misc Adjustments 	-	-	25.898	-	25.898

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2016 N	lavy							Date: Febr	uary 2015	
Appropriation/Budget Activity 1319 / 5		_	am Elemen 50N / Joint A	•	Project (Number/Name) 2211 I Joint Air-to-Ground Missile							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
2211: Joint Air-to-Ground Missile	205.820	4.757	6.300	25.898	-	25.898	19.798	8.999	4.399	0.003	Continuing	Continuing
Quantity of RDT&E Articles		-	43	10	-	10	-	-	-	-		

Note

Navy

The FY14 Above Threshold Reprogramming (ATR) will be used to procure test assets and related cost in support of Milestone B and AH-1Z integration.

A. Mission Description and Budget Item Justification

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

Joint Air-to-Ground Missile (JAGM) is an Army-led close-air-support missile program that will utilize multi-mode seeker technology and be employed against land and maritime stationary and moving targets. JAGM will provide an air launched missile system that utilizes open architecture for future technology improvements, providing advanced Line-of-Sight and Beyond Line-of-Sight capabilities, including precision point targeting and fire and forget seeker technologies, and increased lethality against soft and hardened moving and stationary targets. Its multi-mode seeker will provide robust capability in adverse weather, day or night, and in an obscured/countermeasure environments. The Navy's threshold platform for JAGM is the AH-1Z. The JAGM system includes the missile, trainers, containers, support equipment and the M-299 launcher.

b. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			F1 2016	F1 2010	F1 2016
	FY 2014	FY 2015	Base	oco	Total
Title: JAGM Technology Development (TD) Phase	4.757	6.300	25.898	-	25.898
Articles:	-	43	10	-	10
FY 2014 Accomplishments:					
Technology Development (TD) Seeker Critical Design Review with Lockheed Martin was completed in January					
2014. The ATR for \$4.757M supported MS B and AH-1Z integration. Restructured the program schedule to					
align AH-1Z software configuration development schedule with ARMY program milestones to support Navy FY19					
Initial Operating Capability.					
FY 2015 Plans:					
Funding supports initial AH-1Z software integration, platform air worthiness analysis, test planning, procurement					
of integration hardware, acquisition and buildup of test articles, and joint cost and schedule planning for					
Milestone B and Engineering, Manufacturing and Development (EMD).					
FY 2016 Base Plans:					

PE 0605450N: Joint Air-to-ground Missile (JAGM)

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EV 2016 EV 2016 EV 2016

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 3 (umber/Name) nt Air-to-Ground Missile

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Funding supports AH-1Z software integration, platform air worthiness analysis/testing, test planning/execution, procurement of test and integration hardware, acquisition and buildup of test articles, future technology insertion, and joint cost and schedule planning for Milestone C and EMD.					
FY 2016 OCO Plans: N/A					
Accomplishments/Planned Programs Subtotals	4.757	6.300	25.898	-	25.898

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

	• `	•	FY 2016	FY 2016	FY 2016					Cost To	
<u>Line Item</u>	FY 2014	FY 2015	Base	OCO	<u>Total</u>	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
• RDT&E ARMY, 0605450A: <i>JAGM</i>	15.684	83.800	88.900	-	88.900	41.300	16.900	-	-	Continuing	Continuing
• 0206138M: BLI 2211: <i>JAGM</i>	-	-	-	-	-	26.200	26.200	24.300	24.300	Continuing	Continuing
 MPA, ARMY, C70302: JAGM. 	-	-	27.700	-	27.700	57.500	151.600	109.900	128.600	Continuing	Continuing

Remarks

D. Acquisition Strategy

The JAGM system is a pre-MDAP Joint Army/Navy program with the Army designated as lead service. The Army is continuing Technology Development efforts with a planned Milestone B in FY15.

E. Performance Metrics

Milestone B in FY15.

PE 0605450N: *Joint Air-to-ground Missile (JAGM)* Navy

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					UN	CLASS	DIFIED								
Exhibit R-3, RDT&E F	Project C	ost Analysis: PB 2	016 Navy	/								Date:	February	2015	
Appropriation/Budge 1319 / 5	t Activity	1				, ,							r/ Name) o-Ground	Missile	
Product Developmen	nt (\$ in M	illions)		FY 2	2014	FY 2	2015		2016 ise		2016 CO	FY 2016 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
Systems Engineering	WR	NAWCWD : China Lake, CA	45.334	0.854	Nov 2014	0.142	Aug 2015	1.870	Nov 2015	-		1.870	Continuing	Continuing	Continuin
Systems Engineering	WR	NAWCAD : Patuxent River, MD	0.000	0.335	Nov 2014	0.056	Aug 2015	0.343	Nov 2015	-		0.343	Continuing	Continuing	Continuin
Aircraft Integration	WR	NAWCAD : Patuxent River, MD	4.860	0.570	Nov 2014	0.095	Aug 2015	0.581	Nov 2015	-		0.581	Continuing	Continuing	Continuin
Aircraft Integration (AH-1Z)	Various	NAWCWD : China Lake, CA	0.250	1.768	Jan 2015	1.132	Aug 2015	6.200	Nov 2015	-		6.200	Continuing	Continuing	Continuin
Hardware-Integration & Test	TBD	TBD : TBD	0.000	0.500	Jun 2015	4.491	Jun 2015	15.839	Jan 2016	-		15.839	Continuing	Continuing	Continuin
Prior year cost Prod Dev no longer funded in the FYDP	Various	Various : Various	83.338	-		-		-		-		-	-	83.338	-
		Subtotal	133.782	4.027		5.916		24.833		-		24.833	-	-	-
Support (\$ in Millions	s)			FY 2	2014	FY 2	2015	FY 2	2016 ise		2016 CO	FY 2016 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
Integrated Logistics Support	WR	NAWCWD : China Lake, CA	1.602	0.046	Nov 2014	0.047	Aug 2015	0.157	Nov 2015	-		0.157	Continuing	Continuing	Continuin
Prior year Support cost no longer funded in the FYDP	Various	Various : Various	24.653	-		-		-		-		-	-	24.653	-
		Subtotal	26.255	0.046		0.047		0.157		-		0.157	-	-	-
Test and Evaluation ((\$ in Milli	ons)		FY 2	2014	FY 2	2015	FY 2	2016 ise		2016 CO	FY 2016 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
Test & Evaluation	Various	NAWCAD : Patuxent River, MD	11.865		Sep 2015	-		-		-		-	-	11.932	-

PE 0605450N: Joint Air-to-ground Missile (JAGM) Navy UNCLASSIFIED

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy			Date: February 2015
1	R-1 Program Element (Number/Name) PE 0605450N / Joint Air-to-ground Missile (JAGM)	- , (umber/Name) nt Air-to-Ground Missile

Test and Evaluation	(\$ in Milli	ons)		FY 2014		FY 2015		FY 2 5 Bas		FY 2016 OCO		FY 2016 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
Test & Evaluation	Various	NAWCWD : China Lake, CA	8.422	0.103	Nov 2014	0.035	Aug 2015	0.211	Nov 2015	-		0.211	Continuing	Continuing	Continuing
Prior year T&E cost no longer funded in the FYDP	Various	Various : Various	8.125	-		-		-		-		-	-	8.125	-
		Subtotal	28.412	0.170		0.035		0.211		-		0.211	-	-	-

Management Service	es (\$ in M	illions)		FY 2	2014	FY 2	2015	FY 2 Ba	2016 Ise	FY 2	2016 CO	FY 2016 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
Contr Eng Supt - ETS (NONFFRDC)	Various	Various : Various	7.414	0.236	Nov 2014	0.242	Jan 2015	0.353	Feb 2016	-		0.353	Continuing	Continuing	Continuing
Management Services	Various	NAWCAD : Patuxent River, MD	0.000	0.278	Nov 2014	-		0.284	Nov 2015	-		0.284	Continuing	Continuing	Continuing
Travel	Various	NAWCAD : Patuxent River, MD	0.360	-		0.060	Nov 2014	0.060	Nov 2015	-		0.060	Continuing	Continuing	Continuing
Prior year Mngt Svcs cost no longer funded in the FYDP	Various	Various : Various	9.597	-		-		-		-		-	-	9.597	-
		Subtotal	17.371	0.514		0.302		0.697		-		0.697	-	-	-

	Prior Years	FY 2	2014	FY 2	2015	FY 2 Ba	FY 2	 FY 2016 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	205.820	4.757		6.300		25.898	-	25.898	-	-	-

Remarks

Program acquisition milestones (minus unique Initial Operating Capability) and production milestones are joint program milestones for both Army and Navy.

PE 0605450N: Joint Air-to-ground Missile (JAGM) Navy UNCLASSIFIED
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Exhibit R-4, RDT&E Schedule Profi	ile:	PB 201	16 I	Nav	у														I	Date : Fe	brua	ry 20	15	
Appropriation/Budget Activity 1319 / 5															Number/Name) int Air-to-Ground Missile									
JAGM	10	FY 201		4011	ajza	FY 2015	4 Q		Y 2016	BOL	1011	ajzo	FY 20		10	FY 2018		10	FY 2Q	2019 3Q	140		2020	ļ
Acquisition Milestones						MS-B ▲							MS-C							FRP Decision				
Reviews	0	CDR Seeker)						CDR (System)																i
Test and Evaluation Integration AH1-Z Integration Software Development Testing/Integration Testing					† 				AH1-Z II	nteg	rati	on		 		DT/IT								
Operational Testing Software Integration Lab Testing									SIL Testi	ing							ОТ	Repo	orting	<u> </u> 				
Production Milestones	+			+	╁	DT/IT									$ \cdot $									<u> </u>
Contract Awards						Test Asset Qty 43 (RDTE,N)			OT Test Asset Qty 10 (RDTE,N	0				LRIP 1 (WPN)	ΙI	LRIP 2 WPN)				FRP (WPN)				
Deliveries										A	sse	IT T	y 43			OT Test Asset Qty 10 RDTE,N)	_	LRIF	2 1 (V	VPN)		RIP 2 VPN)		
2016PB - 0605450N - 2211																								

PE 0605450N: Joint Air-to-ground Missile (JAGM) Navy UNCLASSIFIED
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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy	Date: February 2015			
11	,	, ,	umber/Name) nt Air-to-Ground Missile	

Schedule Details

	Sta	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
JAGM					
Acquisition Milestones: Milestone B	3	2015	3	2015	
Acquisition Milestones: Milestone C	3	2017	3	2017	
Acquisition Milestones: IOC	4	2019	4	2019	
Acquisition Milestones: FRP Decision	3	2019	3	2019	
Reviews: Seeker Critical Design Review	2	2014	2	2014	
Reviews: System Critical Design Review	1	2016	1	2016	
Test and Evaluation: AH1-Z Integration: AH1-Z Integration	1	2015	3	2018	
Test and Evaluation: Software Development Testing/Integration Testing: DT/IT	1	2018	4	2018	
Test and Evaluation: Operational Testing: OT	4	2018	4	2018	
Test and Evaluation: Operational Testing: OT Reporting	1	2019	2	2019	
Test and Evaluation: Software Integration Lab Testing: SIL Testing	3	2015	4	2017	
Production Milestones: Contract Awards: DT/IT Test Asset	3	2015	3	2015	
Production Milestones: Contract Awards: OT Test Asset	2	2016	2	2016	
Production Milestones: Contract Awards: LRIP 1 (WPN)	4	2017	4	2017	
Production Milestones: Contract Awards: LRIP 2 (WPN)	2	2018	2	2018	
Production Milestones: Contract Awards: FRP (WPN)	3	2019	3	2019	
Production Milestones: Deliveries: DT/IT Test Asset	3	2016	3	2017	
Production Milestones: Deliveries: OT Test Asset	2	2018	3	2018	
Production Milestones: Deliveries: LRIP 1 (WPN)	4	2018	3	2019	
Production Milestones: Deliveries: LRIP 2 (WPN)	4	2019	3	2020	