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

Date: March 2014

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

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

PE 0604727N I Joint Standoff Weapon Systems

Development & Demonstration (SDD)

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	876.342	5.490	0.442	4.400	-	4.400	0.409	0.433	0.436	0.444	3.353	891.749
2068: Joint Standoff Weapon (JSOW)	876.342	5.490	0.442	4.400	-	4.400	0.409	0.433	0.436	0.444	3.353	891.749

MDAP/MAIS Code: 766

#### A. Mission Description and Budget Item Justification

The Joint Standoff Weapon (JSOW) is an air-to-ground weapon designed to attack a variety of targets during day, night, and adverse weather conditions. JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of most target area surface-to-air threat systems. The JSOW launch-and-leave capability will allow several target kills per aircraft sortie. The JSOW program first developed a baseline weapon for use against fixed area targets. JSOW is a Navy led joint Navy/Air Force program.

The JSOW Baseline (AGM-154A) variant includes a kinematically efficient airframe, an integrated Inertial/Global Positioning System navigation capability, and a BLU-97/B or BLU-111 payload. This weapon was designed up front for pre-planned product improvements. Procurement of JSOW-A in the FYDP is deferred pending a fix to the unexploded ordnance issue or a change in the inventory levels. The JSOW BLU-108 (AGM-154B) variant incorporates the sensor fuze weapon submunition (BLU-108) into the baseline vehicle. Planned production of the JSOW/BLU-108 is deferred pending a change in the threat. The JSOW Unitary (AGM-154C) variant has a terminal seeker, autonomous target acquisition capability, and a broach lethal package to enable the attack of blast/fragmentation and penetration type targets. The JSOW Unitary provides increased accuracy and lethality and the capability for aimpoint selection. Operational Testing of the JSOW-C was successfully completed in December 2004. Approval for Milestone-III/Full Rate Production was granted on 20 December 2004. JSOW-C Initial Operational Capability was achieved in February 2005.

FY 2013-2015 includes funding for development, integration, qualification and follow-on developmental and operational test and evaluation of a Network Enabled Weapon (NEW) moving maritime target capability into the JSOW Unitary weapon (AGM-154C-1). The moving maritime target capability is currently being integrated as an engineering change proposal beginning with FY 2009 procured JSOW-C weapons. The new AGM-154C-1 capability will enable the weapon to be integrated with the network and attack sea moving maritime targets via real-time pre-and post-launch targeting updates. JSOW will continue to conduct analysis and development of solutions to system integration challenges, and continual enhancement of warfighter effectiveness in the employment of the JSOW weapon system. JSOW funding will provide enhancements to include the analysis of extended range and future improvements to the JSOW-C configuration to improve capability. In addition, FY 2013-2015 includes funding to integrate new functionality of the Common Unique Planning Component (CUPC) into the joint mission planning systems and precision guided munitions planning system.

JSOW utilizes a "common truck" for both AGM-154A and AGM-154C variants. Through adherence to international standards for weapons interfaces, weight, and dimension considerations, JSOW is compatible with Air Force and NATO aircraft.

PE 0604727N: Joint Standoff Weapon Systems

<sup>&</sup>lt;sup>#</sup> The FY 2015 OCO Request will be submitted at a later date.

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

### **Appropriation/Budget Activity**

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)

PE 0604727N I Joint Standoff Weapon Systems

This program is funded under System Development and Demonstration because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	<b>FY 2015 Base</b>	FY 2015 OCO	FY 2015 Total
Previous President's Budget	5.518	0.442	0.425	-	0.425
Current President's Budget	5.490	0.442	4.400	-	4.400
Total Adjustments	-0.028	-	3.975	-	3.975
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
Congressional Adds	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.004	-			
<ul> <li>Rate/Misc Adjustments</li> </ul>	0.002	-	3.975	=	3.975
<ul> <li>Congressional General Reductions</li> </ul>	-0.026	-	=	=	-
Adjustments					

### **Change Summary Explanation**

PE 0604727N: Joint Standoff Weapon Systems

Schedule: In March 2013 the JSOW program awarded a modification to the FRP7 and FRP8 contracts to add an annual delivery schedule to production AUR's. The deliveries were adjusted to incorporate this modification. The annual delivery schedule will continue in FRP9 and beyond.

Integrated Test IT-V and IT-VI were added in 2nd Qtr FY14 in order to align the JSOW C-1 with the F/A-18 H10 Operational Flight Program.

The contract was awarded in June 2013. FRP13 was removed due to FY17-FY19 production deferral.

JSOW C-1 IOC was moved from 4QFY14 to 3QFY15

FRP12 Deliveries were added and will begin in 3QFY17

Exhibit R-2A, RDT&E Project J	ustification:	PB 2015 N	lavy							Date: Marc	ch 2014		
Appropriation/Budget Activity 1319 / 5	319/5							R-1 Program Element (Number/Name) PE 0604727N / Joint Standoff Weapon Systems Project (No. 2068 / Joint Systems					
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	
2068: Joint Standoff Weapon (JSOW)	876.342	5.490	0.442	4.400	-	4.400	0.409	0.433	0.436	0.444	3.353	891.749	
Quantity of RDT&E Articles	0.000	-	-	-	-	-	-	-	-	-			

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

### A. Mission Description and Budget Item Justification

Provides funds for the development of a weapon to be employed by aircraft to attack targets during day, night, and adverse weather conditions. The JSOW design will capitalize on aircraft sensor capabilities and minimize individual weapon sophistication, reducing unit cost and provides a significant increase in strike warfare capability. Excludes civilian and military manpower and their related costs and military construction costs which are included in appropriate management and support elements in this program.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Network Enabled Weapon (NEW)	5.392	0.342	4.298
Articles:	-	-	-
<b>Description:</b> Develop and integrate the NEW moving maritime target capability into JSOW-C, termed AGM-154C-1.			
FY 2013 Accomplishments:			
Continued weapon qualification and follow-on Operational Test (OT) efforts.			
FY 2014 Plans:			
Continue weapon qualification and follow-on OT efforts and continue support for software integration associated with future			
obsolescence, software improvements, and regression testing on NEW moving maritime target capability.			
FY 2015 Plans: Complete weapon qualification and follow-on OT efforts and continue support for software integration associated with future			
obsolescence, software improvements, and regression testing on NEW moving maritime target capability.			
Title: JSOW Common Unique Planning Component (CUPC)	0.098	0.100	0.102
Articles:	-	-	-
<b>Description:</b> Incorporates mission planning into the JSOW maritime CUPC and develop new software releases. Address new mission planning functionality related to the incorporation of the NEW moving target capability into the JSOW-C-1 weapons.			
FY 2013 Accomplishments:			

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604727N / Joint Standoff Weapon Systems	- , (	umber/Name) nt Standoff Weapon (JSOW)

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) Resumed interoperability efforts for JSOW C-1.	FY 2013	FY 2014	FY 2015
FY 2014 Plans: Continue interoperability efforts for JSOW C-1.			
FY 2015 Plans: Continue interoperability efforts for JSOW C-1.			
Accomplishments/Planned Programs Subtotals	5.490	0.442	4.400

### 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	<b>Total Cost</b>
• USN WP,N BLI 223000: <i>JSOW</i>	120.201	117.594	130.759	-	130.759	159.940	-	-	-	1,764.705	4,202.148

#### **Remarks**

FY15 OSD MSR production deferral beginning FY17 assumes substantial FMS JSOW C buy.

## D. Acquisition Strategy

The contracting strategy for JSOW is planned to be sole source for the life of the program. Cost type contracts are utilized for the Engineering and Manufacturing Development (EMD) and follow-on modification program (i.e., Block II (AGM-154C), AGM-154C-1) efforts. Component breakout is used, when possible, to promote full and open competition.

Fixed price type contracts are utilized for production.

#### **E. Performance Metrics**

The JSOW C-1 program is meeting the cost schedule, performance, funding and life cycle sustainment in accordance with the Acquisition Program Baseline.

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

R-1 Program Element (Number/Name)

Project (Number/Name)

Appropriation/Budget Activity 1319 / 5

PE 0604727N / Joint Standoff Weapon Systems

2068 I Joint Standoff Weapon (JSOW)

Date: March 2014

Product Developme	Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Total	Cost To	Total Cost	Target Value of Contract
System Engineering	MIPR	National Security Agency : Maryland	0.814	0.181	Nov 2012	-		-		-		-	-	0.995	0.995
System Engineering	WR	NAWCWD : China Lake, CA	110.003	0.322	Aug 2013	0.142	Nov 2013	0.199	Nov 2014	-		0.199	-	110.666	-
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various : Various	681.867	-		-		-		-		-	-	681.867	-
		Subtotal	792.684	0.503		0.142		0.199		_		0.199	-	793.528	-

Support (\$ in Millions	s)			FY 2	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
Software Development - JMPS	SS/CPFF	Lockheed Martin Systems Integration : King of Prussia, PA	5.620	0.098	Aug 2013	0.100	Dec 2013	0.102	Dec 2014	-		0.102	5.075	10.995	5.075
Prior year Support cost no longer funded in the FYDP	Various	Various : Various	8.007	-		-		-		-		-	-	8.007	-
		Subtotal	13.627	0.098		0.100		0.102		-		0.102	5.075	19.002	-

#### Remarks

(1) Funding in previous years was sent to Raytheon Systems. In FY13 a new contract was awarded with Lockheed Martin Systems Integration.

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	Total Cost	Target Value of Contract
Int Test and Evaluation	WR	NAWCWD : China Lake, CA	33.662	-	Apr 2013	0.100	Nov 2013	-		-		-	-	33.762	-
Oper Test and Evaluation	WR	COMOPTEVFOR: Norfolk, VA	10.865	4.889	Aug 2013	0.100	May 2014	4.099	Oct 2014	-		4.099	-	19.953	-
		Subtotal	44.527	4.889		0.200		4.099		-		4.099	-	53.715	-

PE 0604727N: Joint Standoff Weapon Systems Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Navy			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	- , ,	umber/Name)
1319 / 5	PE 0604727N / Joint Standoff Weapon Systems	2068 I JOIR	nt Standoff Weapon (JSOW)

Management Service	Management Services (\$ 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
Prior year Mgmt cost no longer funded in the FYDP	Various	Various : Various	25.504	-		-		-		-		-	-	25.504	-
		Subtotal	25.504	-		-		-		-		-	-	25.504	-
			Prior						2015		2015	FY 2015	Cost To	Total	Target Value of

Years FY 2013 FY 2014 Base oco Total Complete Cost Contract 876.342 4.400 **Project Cost Totals** 5.490 0.442 4.400 891.749 5.075

Remarks

PE 0604727N: Joint Standoff Weapon Systems Navy

								U	INCLA	ASSIF	IED																
Exhibit R-4, RDT&E Schedule Pro	file	: PB	2015	Nav	'y																D	ate:	Mar	rch :	201 <sup>,</sup>	4	
Appropriation/Budget Activity 1319 / 5									PE	Progra 060472 tems			•				•)		-	•		n <b>ber</b> Stand				n (J	sow
Joint Standoff Weapon	L	FY	2013	- 1		FY 2	014			FY 20	15		F	Y 20	16	- 1	FY	20	17		FY	2018	8	ı	FY 2	2019	
	10	2 2 Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q 2	Q 30	2 40	2 10	12Q	3Q	4Q	1Q	2Q	3Q	4Q
Acquisition Milestones  Milestones											JSOW C-1 IOC	,															
Systems Development Hardware Development Software Development Reviews								OTRR																			
Test and Evaluation  Development Test and Evaluation  Integrated Test and Evaluation	i					IT-V	4																				
Operational Test and Evaluation								от	-IIIB	OT Final Report																	
Production Milestones	1	7 7		1 1		1	1	i —		1	1	1 1		1	i	T i	Ti-	<b>1</b> −	ヿ゙ヿ	1	1	1	1	П	П	Шİ	Ti.

2015PB - 0604727N - 2068 OT Final Report refers to AGM-154C-1 Operational Test Agency Follow On Evaluation OT-IIIB Final Report There is no overlap in deliveries. One FRP ends in 4th Qtr FY14 and the other FRP begins in 1st Qtr FY15. FRP-9 contract award occurred in June 2013; FRP-10 contract award occurred in December 2013

FRP-10

FRP-8

FRP-9

FRP-10

Contract Awards

Deliveries

FRP-11

FRP-12

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Navy	Date: March 2014				
1	, ,	(	umber/Name) t Standoff Weapon (JSOW)		

# Schedule Details

	Sta	art	End			
Events by Sub Project	Quarter	Year	Quarter	Year		
loint Standoff Weapon						
Acquisition Milestones: Milestones: Inital Operational Capability C-1	3	2015	3	2015		
Systems Development: Reviews: Operational Test Readiness Review	4	2014	4	2014		
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-V)	2	2014	2	2014		
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-VI)	2	2014	2	2014		
Test and Evaluation: Operational Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Operational Test (OT-IIIB)	4	2014	1	2015		
Test and Evaluation: Operational Test and Evaluation: AGM-154C-1 JSOW Operational Test Agency Follow-On Evaluation Report OT-IIIB Final Report	2	2015	2	2015		
Production Milestones: Contract Awards: FRP-9 Award AGM-154C-1	3	2013	3	2013		
Production Milestones: Contract Awards: FRP-10 Award AGM-154C-1	1	2014	1	2014		
Production Milestones: Contract Awards: FRP-11 Award AGM-154C-1	1	2015	1	2015		
Production Milestones: Contract Awards: FRP-12 Award AGM-154C-1	1	2016	1	2016		
Deliveries: FRP-8 Deliveries- AGM-154C-1	4	2013	4	2014		
Deliveries: FRP-9 Deliveries- AGM-154C-1	1	2015	1	2016		
Deliveries: FRP-10 Deliveries- AGM-154C-1	3	2015	3	2016		
Deliveries: FRP-11 Deliveries- AGM-154C-1	3	2016	3	2017		
Deliveries: FRP-12 Deliveries- AGM-154C-1	3	2017	3	2018		