**R-1 ITEM NOMENCLATURE** 

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

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy PE 0604727N: Joint Standoff Weapon Systems

BA 5: System Development & Demonstration (SDD)

,	All Dele			EV 0044	FY 2014	EV 0044					0 1 T-	T-4-1
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	869.513	7.303	5.518	0.442	-	0.442	0.425	0.426	0.452	0.459	2.400	886.938
2068: Joint Standoff Weapon (JSOW)	869.513	7.303	5.518	0.442	-	0.442	0.425	0.426	0.452	0.459	2.400	886.938

MDAP/MAIS Code(s): 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 2012-2014 includes funding for development, integration, qualification and follow-on developmental and operational test and evaluation of a Network Enabled Weapon 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 2012-2014 includes funding to integrate new functionality of the Common Unique Planning Component into the Joint Mission Planning Systems and Precision Guided Munitions Planning System.

PE 0604727N: Joint Standoff Weapon Systems

Navy

UNCLASSIFIED
Page 1 of 9

<sup>\*</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy DATE: April 2013

#### APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

1319: Research, Development, Test & Evaluation, Navy

PE 0604727N: Joint Standoff Weapon Systems

BA 5: System Development & Demonstration (SDD)

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.

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 2012	FY 2013	<b>FY 2014 Base</b>	FY 2014 OCO	FY 2014 Total
Previous President's Budget	7.506	5.518	0.444	-	0.444
Current President's Budget	7.303	5.518	0.442	-	0.442
Total Adjustments	-0.203	0.000	-0.002	-	-0.002
<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	-0.054	0.000			
SBIR/STTR Transfer	-0.149	0.000			
Rate/Misc Adjustments	0.000	0.000	-0.002	-	-0.002

# **Change Summary Explanation**

Schedule:

- (1) JSOW C-1 IOC changed from 3Q FY13 to 4Q FY14 as a result of the integration with the final F/A-18 H10 Operational Flight Program which has been delayed.
- (2) OTRR changed from 4Q FY12 to 3Q FY14 as a result of the integration with the final F/A-18 H10 Operational Flight Program which has been delayed.

The change in schedule as a result of the final F/A-18 H10 Operational Flight Program has forced the realignment of the JSOW C-1 integrated test events.

- (3) IT-I moved from starting in 1Q FY12 to 3Q FY12.
- (4) IT-II moved from starting in 1Q FY12 to 4Q FY12.
- (5) IT-III moved from starting in 2Q FY12 to 4Q FY12.
- (6) IT-IV moved from starting n 3Q FY12 to 4Q FY12.
- (7) OT IIIB was moved from starting in 1Q FY13 to 3Q FY14.
- (8) OT Final Report was changed from 2Q FY13 to 1Q FY15.

Exhibit R-2A, RDT&E Project	Justification:	PB 2014 N	lavy							DATE: Apr	il 2013		
APPROPRIATION/BUDGET A	CTIVITY				R-1 ITEM I	NOMENCLA	ATURE		PROJECT				
1319: Research, Development,	Test & Evalua		PE 060472	7N: Joint S	tandoff We	apon	2068: Join	t Standoff V	Veapon (JSC	OW)			
BA 5: System Development & I	BA 5: System Development & Demonstration (SDD)												
COST (\$ in Millions)	All Prior			FY 2014	FY 2014	FY 2014					Cost To	Total	

												I
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2068: Joint Standoff Weapon (JSOW)	869.513	7.303	5.518	0.442	-	0.442	0.425	0.426	0.452	0.459	2.400	886.938
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		

<sup>\*</sup>FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

# A. Mission Description and Budget Item Justification

Includes RDT&E funds for the development of a weapon to be employed by aircraft to attack targets during day, night, and adverse weather conditions. The Joint Standoff Weapon System (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 2012	FY 2013	FY 2014
Title: Network Enabled Weapon (NEW)	7.303	5.420	0.342
Articles:	0	0	0
<b>Description:</b> Develop and integrate the NEW moving maritime target capability into JSOW-C, termed AGM-154C-1.			
FY 2012 Accomplishments: Continued weapon qualification and follow-on Developmental/Operational Test efforts.			
FY 2013 Plans: Continuing weapon qualification and follow-on Operational Test efforts.			
FY 2014 Plans: Complete weapon qualification and follow-on Operational Test 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)  Articles:	0.000	0.098 0	0.100 0
<b>Description:</b> Plan new functions 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 Plans:			

PE 0604727N: Joint Standoff Weapon Systems

Navy

UNCLASSIFIED
Page 3 of 9

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
1319: Research, Development, Test & Evaluation, Navy	PE 0604727N: Joint Standoff Weapon	2068: Joint Standoff Weapon (JSOW)
BA 5: System Development & Demonstration (SDD)	Systems	
	·	·

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) Resume interoperability efforts for JSOW C-1.	FY 2012	FY 2013	FY 2014
FY 2014 Plans:			
Continue interoperability efforts for JSOW C-1.			
Accomplishments/Planned Programs Subtotals	7.303	5.518	0.442

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

			FY 2014	FY 2014	FY 2014					Cost To	
<u>Line Item</u>	FY 2012	FY 2013	<b>Base</b>	OCO	<u>Total</u>	FY 2015	FY 2016	FY 2017	<b>FY 2018</b>	Complete	<b>Total Cost</b>
• USN WP,N BLI 223000: <i>JSOW</i>	131.722	127.609	136.794		136.794	167.984	170.438	173.448	197.309	1,048.835	3,935.257

#### Remarks

## 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 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.

PE 0604727N: Joint Standoff Weapon Systems Navy

UNCLASSIFIED
Page 4 of 9

Systems

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013 **PROJECT** 

APPROPRIATION/BUDGET ACTIVITY

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

PE 0604727N: Joint Standoff Weapon

2068: Joint Standoff Weapon (JSOW)

Product Developme	nt (\$ in Mi	illions)		FY 2	2012	FY	2013		2014 ise		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 Complete	Total Cost	Target Value of Contract
Primary Hardware Development	SS/CPFF	Raytheon Systems:Tucson, AZ	76.904	2.997	Nov 2011	0.000		0.000		-		0.000	0.000	79.901	79.901
System Engineering	MIPR	National Security Agency:Maryland	0.699	0.115	Feb 2012	0.111	Feb 2013	0.000		-		0.000	0.000	0.925	0.925
System Engineering	WR	Naval Research Lab:Maryland	0.945	0.140	Nov 2011	0.143	Nov 2012	0.000		-		0.000	0.000	1.228	
System Engineering	WR	NAWCWD:China Lake, CA	109.068	0.935	Nov 2011	0.322	Aug 2013	0.242	Nov 2013	-		0.242	0.000	110.567	
System Engineering Various	WR	Various:Various	0.000	0.050	Nov 2011	0.000		0.000		-		0.000	0.000	0.050	
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various:Various	601.305	0.000		0.000		0.000		-		0.000	0.000	601.305	
	,	Subtotal	788.921	4.237		0.576		0.242		0.000		0.242	0.000	793.976	

#### Remarks

(1) The target value of the contract exceeds the JSOW funding because the Harpoon Block III (PE0604227N PU1843) program shares a portion of the Strike Common Weapons Data Link (SCWDL).

Support (\$ in Millions	s)			FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2		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 Complete	Total Cost	Target Value of Contract
Software Development - JMPS	SS/CPFF	Lockheed Martin Systems Integration:King of Prussia, PA	5.620	0.000		0.098	Jun 2013	0.100	Dec 2013	-		0.100	4.956	10.774	10.774
Prior year Support cost no longer funded in the FYDP	Various	Various:Various	8.007	0.000		0.000		0.000		-		0.000	0.000	8.007	
		Subtotal	13.627	0.000		0.098		0.100		0.000		0.100	4.956	18.781	

#### Remarks

(1) Funding in previous years was sent to Raytheon Systems. Starting in FY13 a new contract will be utilized through Lockheed Martin Systems Integration.

PE 0604727N: Joint Standoff Weapon Systems Navy

**UNCLASSIFIED** Page 5 of 9

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy

R-1 ITEM NOMENCLATURE

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

PE 0604727N: Joint Standoff Weapon

PROJECT

BA 5: System Development & Demonstration (SDD)

Systems

2068: Joint Standoff Weapon (JSOW)

Test and Evaluation	(\$ in Milli	ons)		FY 2	2012	FY 2	2013	FY 2 Ba	2014 ise	FY 2		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 Complete	Total Cost	Target Value of Contract
Int Test and Evaluation	WR	NAWCWD:China Lake, CA	30.646		Nov 2011	0.000		0.000		-		0.000	0.000	33.662	
Oper Test and Evaluation	WR	COMOPTEVFOR:Nor	folk, 10.815	0.050	Nov 2011	4.844	Aug 2013	0.100	May 2014	-		0.100	0.000	15.809	
		Subtotal	41.461	3.066		4.844		0.100		0.000		0.100	0.000	49.471	

Management Service	s (\$ in M	illions)		FY 2	2012	FY 2	2013	FY 2 Ba		FY 2		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 Complete	Total Cost	Target Value of Contract
Prior year Mgmt cost no longer funded in the FYDP	Various	Various:Various	25.504	0.000		0.000		0.000		-		0.000	0.000	25.504	
		Subtotal	25.504	0.000		0.000		0.000		0.000		0.000	0.000	25.504	

		l.	'		1	1			
									Target
	All Prior			FY 2014	FY 2014	FY 2014	Cost To	Total	Value of
	Years	FY 2012	FY 2013	Base	oco	Total	Complete	Cost	Contract
Project Cost Totals	869.513	7.303	5.518	0.442	0.000	0.442	4.956	887.732	

Remarks

PE 0604727N: Joint Standoff Weapon Systems Navy

UNCLASSIFIED
Page 6 of 9

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 5: System Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604727N: Joint Standoff Weapon

Systems

**PROJECT** 

2068: Joint Standoff Weapon (JSOW)

Joint Standoff Weapon		Y 2012			Y 20				2014			FY 2015		1.	FY 20				FY 20		_		2018
Acquisition Milestones	10	2Q 3Q	4Q	10  2	20	3040	14	2Q	3Q	4Q	1Q	2Q	3Q4	Q1C	2Q	30	4Q	10	2Q	3Q4	QII	QIZC	13Q
Milestones										JSOW C-1 IOC													
Systems Development Hardware Development					T		寸						$\Box$	1		İ		T			1	1	$\Box$
Software Development	Desig	n/Integ	/Qual										$  \  $							$  \  $			$  \  $
Reviews									OTRR				$  \  $				$  \  $			$  \  $			
Test and Evaluation	DT-II	$\Box$				$\dashv \dashv$	$\dashv$						$\dagger \dagger$	┪		†-	H	$\neg$		$\sqcap$	$\dagger$	┪	$\dagger \dagger$
Development Test and Evaluation	<u> </u>	1			ļ		-						!!			ļ	ļ ļ			ļ ļ	ļ		!!
	DT-II FQT ▼																						
Integrated Test and Evaluation			IT-I																		-		
	ĺ		IT-II	ĺ	j	İİ	İ					ĺ	İΪ	İ	İ	İ	İΙ	İ		İΪ	İ	İ	İΪ
	ĺ		IT-III	İ	j	Ιİ	j					İ	İΙ	İ	İ	İ	İΙ	İ		İΪ	İ	İ	İΪ
	ĺ		IT-IV	İ	j	Ιİ	j						İΪ	İ		İ	İΙ	İ		İΪ	İ	İ	İΪ
Operational Test and Evaluation									ОТ	-IIIB	OT Final Report												
Production Milestones		-   -			_	$\dashv \dashv$	4				•	 	$\sqcup$	4		<u> </u>	Ш	$\dashv$		$\square$	4	_	$\square$
Contract Awards	FRP-8	111		I I	RP-9		F	FRP-10				FRP-11	1		FRP-12	2	İΙ		FRP-13	ij	İ	İ	
Deliveries		<del>     </del>		<u> </u>	<del>i</del>	$\dashv\dashv$						i	<del>i                                    </del>	┪	i	i	i	$\neg$ i		i —	— <del> </del> —	—i—	<del>1  </del>

2014PB - 0604727N - 2068 OT Final Report refers to AGM-154C-1 Operational Test Agency Follow On Evaluation OT-IIIB Final Report FRP-8 contract award occurred in December 2011

FRP-8 delivery schedule adjusted to a nine-month schedule to realign the JSOW production cycle FRP-9 and beyond. Prior variations in delivery schedules and contract award dates caused the production cycle misalignment.

PE 0604727N: Joint Standoff Weapon Systems

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0604727N: Joint Standoff Weapon

2068: Joint Standoff Weapon (JSOW)

BA 5: System Development & Demonstration (SDD)

Systems

## Schedule Details

	Sta	art	End			
Events by Sub Project	Quarter	Year	Quarter	Year		
Joint Standoff Weapon						
Acquisition Milestones: Milestones: Inital Operational Capability C-1	4	2014	4	2014		
Systems Development: Software Development: Network Enabled Weapon/Moving Target/AGM-154C-1 Design/Integration/Qual	1	2012	4	2012		
Systems Development: Reviews: Operational Test Readiness Review	3	2014	3	2014		
Test and Evaluation: Development Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Development Test (DT-II)	1	2012	1	2012		
Test and Evaluation: Development Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Development Test Final Qualification Test (DT-II)	1	2012	1	2012		
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-I)	3	2012	4	2012		
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-II)	4	2012	4	2012		
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-III)	4	2012	4	2012		
Test and Evaluation: Integrated Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Integrated Test (IT-IIII)	4	2012	4	2012		
Test and Evaluation: Operational Test and Evaluation: Network Enabled Weapon/ Moving Target/AGM-154C-1 Development Test (OT-IIIB)	3	2014	4	2014		
Test and Evaluation: Operational Test and Evaluation: AGM-154C-1 JSOW Operational Test Agency Follow-On Evaluation Report OT-IIIB Final Report	1	2015	1	2015		
Production Milestones: Contract Awards: FRP-8 Award AGM-154C-1	1	2012	1	2012		
Production Milestones: Contract Awards: FRP-9 Award AGM-154C-1	2	2013	2	2013		
Production Milestones: Contract Awards: FRP-10 Award AGM-154C-1	2	2014	2	2014		

PE 0604727N: Joint Standoff Weapon Systems Navy

UNCLASSIFIED
Page 8 of 9

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0604727N: Joint Standoff Weapon 2068: Joint Standoff Weapon (JSOW)

BA 5: System Development & Demonstration (SDD)

Systems

	St	art	End			
Events by Sub Project	Quarter	Year	Quarter	Year		
Production Milestones: Contract Awards: FRP-11 Award AGM-154C-1	2	2015	2	2015		
Production Milestones: Contract Awards: FRP-12 Award AGM-154C-1	2	2016	2	2016		
Production Milestones: Contract Awards: FRP-13 Award AGM-154C-1	2	2017	2	2017		
Deliveries: FRP-6 Deliveries- AGM-154C-1	1	2012	3	2012		
Deliveries: FRP-7 Deliveries- AGM-154C-1	4	2012	3	2013		
Deliveries: FRP-8 Deliveries- AGM-154C-1	4	2013	2	2014		
Deliveries: FRP-9 Deliveries- AGM-154C-1	3	2014	2	2015		
Deliveries: FRP-10 Deliveries- AGM-154C-1	3	2015	2	2016		
Deliveries: FRP-11 Deliveries- AGM-154C-1	3	2016	2	2017		