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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
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Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>
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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	143.584	24.215	56.286	97.002	-	97.002	104.032	116.369	119.176	115.459	Continuing	Continuing
1663: <i>SDB II F-18 Integration</i>	0.000	-	29.000	56.000	-	56.000	57.000	52.000	35.000	6.000	Continuing	Continuing
3072: <i>Small Diameter Bomb (SDB)</i>	124.860	17.975	13.353	29.329	-	29.329	38.288	59.590	80.611	105.815	Continuing	Continuing
3082: <i>JMM BRU</i>	18.724	6.240	13.933	11.673	-	11.673	8.744	4.779	3.565	3.644	Continuing	Continuing

Program MDAP/MAIS Code: 439

A. Mission Description and Budget Item Justification

Small Diameter Bomb Increment II (SDB II) is a joint program, with the Air Force (AF) as the lead service, which provides the warfighter a capability to attack mobile targets in all weather from Stand-Off range. SDB II addresses the following warfighter requirements: attack mobile targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, capability against fixed targets, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures, and provides a net-centric operations capability. The threshold aircraft for the AF is the F-15E and the threshold aircraft for the Department of Navy are the F-35B and F-35C. SDB II will be compatible with the Joint Miniature Munitions Bomb Rack Unit (JMM BRU) (BRU-61A/A).

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.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	24.925	71.849	85.349	-	85.349
Current President's Budget	24.215	56.286	97.002	-	97.002
Total Adjustments	-0.710	-15.563	11.653	-	11.653
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-15.563			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.710	-			
• Rate/Misc Adjustments	-	-	11.653	-	11.653

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<u>Change Summary Explanation</u> Schedule: SDB II Milestone C is scheduled for 3Q FY15. DoN IOC date changed to 2022 to accommodate the F-35 Block 4 schedule. F/A-18 E/F integration added to meet the DoN requirement in FY 2020.		

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB)				Project (Number/Name) 1663 / SDB II F-18 Integration			
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
1663: SDB II F-18 Integration	-	-	29.000	56.000	-	56.000	57.000	52.000	35.000	6.000	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The F/A-18E/F Super Hornet is an objective platform for employment of the Small Diameter Bomb II (SDB II) and the Joint Miniature Munitions Bomb Rack Unit (JMM BRU). This program funds the software design, development, integration and testing required to successfully integrate SDB II/JMM BRU on the F/A-18E/F. IOC is scheduled for FY2020.												
FY2014 funding resides in PE 0204136N, PU 1662 F/A-18 Improvement.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: F/A-18 Integration								-	29.000	56.000	-	56.000
								Articles: -	-	-	-	-
FY 2014 Accomplishments: N/A												
FY 2015 Plans: System specification and design efforts for SDB II and JMM BRU integration efforts. System configuration set software development and integration.												
FY 2016 Base Plans: Continue Operational Flight Plan (OFP) software coding, to include Universal Armament Interface (UAI), conduct wind tunnels and ground testing, and purchase weapon and rack test assets required.												
FY 2016 OCO Plans: N/A												
Accomplishments/Planned Programs Subtotals								-	29.000	56.000	-	56.000
C. Other Program Funding Summary (\$ in Millions)												
Line Item	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	
• 0204136N/1662: SDB II Integration	9.300	-	-	-	-	-	-	-	-	-	-	9.300

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>				Project (Number/Name) 1663 / <i>SDB II F-18 Integration</i>				
C. Other Program Funding Summary (\$ in Millions)												
	<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
<u>Remarks</u>												
D. Acquisition Strategy												
Integration of SDB II and the JMM BRU is software driven with ground and flight test requirements.												
E. Performance Metrics												
Earned value will be used for the contracted efforts.												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB)				Project (Number/Name) 1663 / SDB II F-18 Integration					
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
OFP Development and Support	SS/IDIQ	Boeing : St. Louis, MO	0.000	-		5.086	Feb 2015	23.271	Jan 2016	-		23.271	53.123	81.480	81.480
SDB II Prime Contractor Support	SS/IDIQ	Raytheon Missile Systems : Tuscon, AZ	0.000	-		9.542	Jun 2015	12.328	Jan 2016	-		12.328	25.091	46.961	46.961
JMM BRU Prime Contractor Support	SS/IDIQ	Raytheon Technical Services Company, LLC : Indianapolis, IN	0.000	-		8.606	Apr 2015	10.215	Mar 2016	-		10.215	16.001	34.822	34.822
SDB II/JMM BRU Integration Support	WR	NAWC AD : Patuxent River, MD	0.000	-		2.000	Nov 2014	6.000	Nov 2015	-		6.000	Continuing	Continuing	Continuing
SDB II/JMM BRU Software Support	WR	NAWC WD : China Lake, CA	0.000	-		3.766	Nov 2014	4.186	Nov 2015	-		4.186	Continuing	Continuing	Continuing
Subtotal			0.000	-		29.000		56.000		-		56.000	-	-	-
Remarks															
Funding for SDB II (Raytheon Missile Systems) and JMM BRU (Raytheon Technical Services Corporation) Prime Contractors includes support of Super Hornet Integration efforts. Funding for Boeing includes software coding of Operational Flight Program Build H-14+, to include Universal Armament Interface (UAI) and F/A-18 E/F aircraft support required.															
Funding for NAWC AD supports engineering support for F/A-18 E/F Super Hornet. Funding for NAWC WD supports engineering support for SDB II and the Advanced Weapons Lab (AWL) at China Lake.															
FY2014 Support funding is included in PE0204136N, PU1662.															
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Operational Test	WR	COMOPTEVFOR : Norfolk, VA	0.000	-		-		-		-		-	18.635	18.635	-
Subtotal			0.000	-		-		-		-		-	18.635	18.635	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015		
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>				Project (Number/Name) 1663 / <i>SDB II F-18 Integration</i>				

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Remarks Operational Test funding includes flight tests and support to validate integration of SDB II and F/A-18 E/F.															
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		29.000		56.000		-		56.000	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy

Date: February 2015

Appropriation/Budget Activity

1319 / 5

R-1 Program Element (Number/Name)

PE 0604329N / *Small Diameter Bomb*
(SDB)

Project (Number/Name)

1663 / SDB II F-18 Integration

[illegible]

2016PB - 0604329N - 1663

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>	Project (Number/Name) 1663 / <i>SDB II F-18 Integration</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>F/A-18 E/F SDB II Integration</i>				
Acquisition Milestones: Schedule Detail	1	2014	1	2020
Acquisition Milestones: IOC	4	2020	4	2020
Systems Development: OFP Development and Integration	1	2015	1	2019
Test & Evaluation: Developmental Test	1	2018	4	2019
Test & Evaluation: Operational Test	4	2019	3	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy									Date: February 2015			
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB)				Project (Number/Name) 3072 / Small Diameter Bomb (SDB)			
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
3072: Small Diameter Bomb (SDB)	124.860	17.975	13.353	29.329	-	29.329	38.288	59.590	80.611	105.815	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
SDB II is an ACAT ID program providing the warfighter a capability to attack mobile targets in all weather from Stand-Off range. The Air Force is the lead service, Raytheon in Tucson, AZ is the prime contractor. SDB II addresses the following warfighter requirements: attack mobile targets, multiple kills per pass, multiple ordnance carriage, all weather operations, near-precision munitions capability, capability against fixed targets, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures, and a migration path to net centric ops capability. Threshold aircraft is the F-15E for the Air Force and the F-35B and F-35C for the Department of the Navy. Objective aircraft include the F/A-22, B-1, B-2, F-117, F-16, B-52, Predator B, and F/A-18E/F.												
As a result of the Joint Strike Fighter (JSF) (F-35) programs restructure, SDB II integration was moved from the JSF Operational Flight Plan (OFP) Block 3 to Block 4. IOC is 3Q FY2022.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: SDB II Weapon Support Articles: Description: Funding provides for SDB II Engineering Manufacturing and Development (EMD) efforts including weapon vendor support, test assets, and government support. FY 2014 Accomplishments: Continued support of EMD and integration of SDB II with F-35B and F-35C. Continued support of SDB II prime contractor and government support of weapon development efforts. FY 2015 Plans: Continue support of EMD and integration of SDB II with F-35B and F-35C. Continue support of SDB II prime contractor and government support of weapon development efforts. Begin specific F-35B and F-35C efforts with SDB II prime contractor which were delayed to FY15 to accommodate the JSF OFP change from Block 3 to Block 4. FY 2016 Base Plans:								13.065	8.353	12.123	-	12.123
								-	-	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Continue support of EMD and integration of SDB II with F-35B and F-35C. Continue detailed F-35B and F-35C efforts to include specific weapon software changes to accomodate F-35 Block 4 Operational Flight Program. FY 2016 OCO Plans: N/A											
Title: JSF Integration Articles: Description: Funding provided for integration of SDB II on F-35B and F-35C, specifically for Lockheed Martin to develop F-35 Operational Flight Program (OFP) software, flight missions, and support and analysis of missions. FY 2014 Accomplishments: Continued F-35 OFP development and coding and support fit checks and testing with SDB II Weapon Vendor. Began software coding of Universal Armament Interface (UAI) and JSF Block 4 OFP and full manning of JSF prime contractor team to support SDB II weapon development. FY 2015 Plans: Continue F-35 UAI OFP development and coding and support fit checks and testing with SDB II Weapon vendor. Begin F-35 bay modifications required for SDB II/JSF/JMM BRU integration. Full manning of JSF prime contractor team to support SDB II weapon development and integration. FY 2016 Base Plans: Continue F-35 UAI OFP development and coding. Continue F-35 bay modifications required for SDB II/JSF/JMM BRU integration and modification of test aircraft to support SDB II. Full manning of JSF prime contractor team to support SDB II weapon development and integration. FY 2016 OCO Plans: N/A							4.910 -	5.000 -	17.206 -	- -	17.206 -
Accomplishments/Planned Programs Subtotals							17.975	13.353	29.329	-	29.329
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• RDTE,AF/0604329F: Small Diameter Bomb	109.580	61.774	33.241	-	33.241	47.866	15.544	15.840	6.533	-	1,147.337

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015	
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>				Project (Number/Name) 3072 / <i>Small Diameter Bomb (SDB)</i>			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• MPAF/0207327F: <i>Small Diameter Bomb</i>	-	40.578	66.496	-	66.496	91.420	93.196	77.824	155.900	1,361.912	1,889.300
• WPN/BLI2238: <i>Small Diameter Bomb</i>	-	-	-	-	-	-	20.000	94.000	94.975	470.725	679.700
Remarks											
D. Acquisition Strategy											
<p>The SDB Increment II acquisition strategy is to conduct a full and open competition to select up to two contractors to compete during a planned 42-month risk reduction phase prior to entering EMD. This competition began April 17, 2006 with the signature of contracts to the competing contractors: 1) Raytheon and 2) the team of Boeing and Lockheed Martin. A Fixed Price Incentive Firm Target type contract for EMD, including Firm Fixed Price procurement options for Lots 1-3 was awarded to Raytheon August 9, 2010. Lots 4 & 5 are included in the contract, but are Not-To-Exceed options.</p> <p>The Navy funding will support Navy-unique efforts for SDB Increment II, such as aircraft integration, ship suitability, studies and analysis, and program management and government in-house support. These efforts will be performed on several cost-type contracts or through cost reimbursable work requests to government activities and contractors.</p>											
E. Performance Metrics											
<p>Earned value management has been implemented on the EMD contract with Raytheon.</p>											

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Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB)				Project (Number/Name) 3072 / Small Diameter Bomb (SDB)					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Primary Hardware Development - SDB II EMD	C/FPIF	Raytheon : Tucson, AZ	21.154	7.610	Jan 2014	2.166	Mar 2015	6.057	Jan 2016	-		6.057	138.072	175.059	175.059
Aircraft Integration - JSF	C/CPFF	Lockheed Martin : Fort Worth, TX	18.155	-		-		9.207	Jan 2016	-		9.207	14.267	41.629	53.408
Prior year Prod Dev cost no longer funded in the FYDP	Various	Various : Various	15.497	-		-		-		-		-	-	15.497	-
Subtotal			54.806	7.610		2.166		15.264		-		15.264	152.339	232.185	-
Remarks															
Primary Hardware Development Prior Years includes McDonnell Douglas Corp and Raytheon Missile Systems Primary H/W Development for the SDB II 42-month risk reduction phase, \$4.393M for Boeing/Lockheed Martin team and \$4.393M for Raytheon and \$2.6M for Joint Surface Warfare (JSuW) efforts with Raytheon and \$4.111M for BRU-61 Shipboard Suitability efforts. Lockheed Martin Prior years includes funding for risk reduction efforts including F-35 internal bay modification efforts for SDB II, adapter and strut hardware and thermal compatability analysis.															
Primary Hardware Development to Raytheon in Tucson, AZ reflects the winning SDB II contractor and includes test assets. Primary Hardware Development reflects additional prime contractor costs to support F-35 and JMM BRU integration.															
Funding for Lockheed Martin F-35 includes bay modifications, logistics efforts, and adapter hardware. It does not include OFF, UAI software coding, nor test missions which are represented in Support and Test sections, respectively. Bay modifications with Lockheed Martin will begin in FY16 to move hydraulic lines and latches to accomodate the SDB II weapon and JMM BRU rack.															
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Software Development - JSF	C/CPFF	Lockheed Martin : Ft. Worth, TX	1.204	4.910	Jan 2014	5.000	Feb 2015	8.000	Jan 2016	-		8.000	59.674	78.788	82.788
Prior year Support cost no longer funded in the FYDP	Various	Various : Various	17.410	-		-		-		-		-	-	17.410	-
Subtotal			18.614	4.910		5.000		8.000		-		8.000	59.674	96.198	-

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Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB)				Project (Number/Name) 3072 / Small Diameter Bomb (SDB)					
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Remarks															
Studies and Analyses include Navy activities to define CONOPS and better define Navy-specific and interoperability requirements, such as weapon data link advanced concept technology demonstration, seeker trade studies, and data link trade studies. Prior year Software Development efforts are in support of JSuW Joint Capability Technology Demonstrations incorporation of J.11 Message Set into Strike Weapons and Weapon Data Link Network efforts.															
Software Development for JSF is the UAI, OFP, and mission planning which supports the SDB II program. Incrementally funded contract was awarded in FY14 to initialize, target, and release the weapon. It will cover 95% of the UAI messages and will support all other UAI compliant weapons in JSF Block 3 and prior, e.g., SDB I, JMAM, and LJDAM.															
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation - JSuW/WDLN	Various	Various : Various	2.864	-		-		-		-		-	75.886	78.750	-
Operational Test & Evaluation - SDBII	WR	COMOPTEVFOR : China Lake, CA	1.010	-		-		-		-		-	25.550	26.560	-
Developmental Test & Evaluation - SDB II	C/CPFF	Lockheed Martin : Ft. Worth, TX	0.000	-		-		-		-		-	33.650	33.650	33.650
Prior Year T&E cost no longer funded in the FYDP	Various	Various : Various	8.049	-		-		-		-		-	-	8.049	-
Subtotal			11.923	-		-		-		-		-	135.086	147.009	-
Remarks															
Developmental T&E (DT) and Operational T&E (OT) include all aspects of the weapon system - SDB II, JMM BRU, and F-35B and F-35C aircraft OFP. There will be no separate DT or OT period for JMM BRU.															
Developmental Test squadrons and locations for F-35B and F-35C are still uncertain as squadrons are being established.															
Operational test is scheduled to begin in FY21 to support FY22 IOC.															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB)				Project (Number/Name) 3072 / Small Diameter Bomb (SDB)					

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Contractor Services	Various	Various : Various	1.708	0.487	Nov 2013	0.505	Nov 2014	0.520	Nov 2015	-		0.520	1.732	4.952	-
Government Support	WR	NAWC WD : China Lake, CA	20.883	2.767	Nov 2013	2.832	Nov 2014	2.882	Nov 2015	-		2.882	16.351	45.715	-
Government Support	WR	Various : Various	8.468	0.250	Nov 2013	0.750	Nov 2014	0.500	Nov 2015	-		0.500	3.093	13.061	-
Program Management Support	WR	Various : Various	6.677	1.801	Nov 2013	1.950	Nov 2014	2.013	Nov 2015	-		2.013	9.359	21.800	-
Travel	MIPR	ASC200G : Eglin AFB, FL	1.781	0.150	Oct 2013	0.150	Oct 2014	0.150	Oct 2015	-		0.150	Continuing	Continuing	Continuing
Subtotal			39.517	5.455		6.187		6.065		-		6.065	-	-	-

Remarks .															
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			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			124.860	17.975		13.353		29.329		-		29.329	-	-	-

Remarks															
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PE 0604329N: *Small Diameter Bomb (SDB)*
Navy

R-1 Line #108

Project (Number/Name)	Start Date	End Date	Duration (Days)	Team Lead	Status	Progress (%)	Budget (USD)	Actual Cost (USD)	Variance (USD)	Risk Level	Notes
101	2023-01-01	2023-03-15	74	John Doe	Completed	100	15000	14800	200	Low	Project completed ahead of schedule.
102	2023-02-01	2023-04-30	89	Jane Smith	In Progress	75	20000	21000	-1000	Medium	Minor budget overrun, on track for completion.
103	2023-03-01	2023-05-15	75	Mike Johnson	On Hold	20	18000	18000	0	High	Project paused due to resource allocation.
104	2023-04-01	2023-06-30	90	Sarah Lee	Planned	0	22000	22000	0	Medium	Project planning phase.
105	2023-05-01	2023-07-15	75	David Kim	Completed	100	12000	12500	-500	Low	Project completed with slight budget savings.
106	2023-06-01	2023-08-31	91	Emily White	In Progress	60	19000	19500	-500	Medium	Project progressing well, minor budget adjustments.
107	2023-07-01	2023-09-15	76	Chris Brown	On Hold	10	16000	16000	0	High	Project paused due to technical challenges.
108	2023-08-01	2023-10-31	91	Alex Green	Planned	0	21000	21000	0	Medium	Project planning phase.
109	2023-09-01	2023-11-15	75	Mia Black	Completed	100	14000	14200	-200	Low	Project completed with minor budget adjustments.
110	2023-10-01	2023-12-31	91	Noah Grey	In Progress	50	17000	17500	-500	Medium	Project progressing, budget review scheduled.

PE 0604329N / *Small Diameter Bomb (SDB)*

3072 / Small Diameter Bomb (SDB)

Small Diameter Bomb II		FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Acquisition Milestones																													
Milestones																													
Systems Development																													
Hardware Development		Engineering Manufacturing and Development (EMD)																											
Universal Armament Interface (UAI)		F-35 UAI Software Coding																											
Test & Evaluation																													
Technical Evaluation																													
Production Milestones																													
Contract Awards																													
Deliveries																													

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>	Project (Number/Name) 3072 / <i>Small Diameter Bomb (SDB)</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Small Diameter Bomb II</i>				
Acquisition Milestones: Milestones: MS C	3	2015	3	2015
Systems Development: Hardware Development: Engineering Manufacturing and Development (EMD)	1	2014	4	2020
Systems Development: Universal Armament Interface (UAI): F-35 OFP Software Coding	2	2014	1	2020
Test & Evaluation: Technical Evaluation: Developmental Test	2	2020	4	2020
Production Milestones: Contract Awards: Lot 1 Contract Award (USAF Only) (Missile Procurement, AF)	4	2015	4	2015
Production Milestones: Contract Awards: Lot 2 Contract Award (USAF Only) (Missile Procurement, AF)	2	2016	2	2016
Production Milestones: Contract Awards: Lot 3 Contract Award (USAF Only) (Missile Procurement, AF)	1	2017	1	2017
Production Milestones: Contract Awards: Lot 4 Contract Award (USAF and DoN) (MPAF and WPN)	1	2018	1	2018
Production Milestones: Contract Awards: Lot 5 Contract Award (USAF and DoN) (MPAF and WPN)	1	2019	1	2019
Production Milestones: Contract Awards: Lot 6 Contract Award (USAF and DoN) (MPAF and WPN)	1	2020	1	2020
Deliveries: Lot 1 Deliveries (USAF only 144 units)	4	2016	4	2016
Deliveries: Lot 2 Deliveries (USAF only 250 units)	4	2017	4	2017
Deliveries: Lot 3 Deliveries (USAF only 390 units)	4	2018	4	2018
Deliveries: Lot 4 Deliveries (USAF 370; DoN 90 units)	4	2019	4	2019
Deliveries: Lot 5 Deliveries (USAF 300; DoN 750 units)	4	2020	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB)				Project (Number/Name) 3082 / JMM BRU			
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
3082: JMM BRU	18.724	6.240	13.933	11.673	-	11.673	8.744	4.779	3.565	3.644	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The Joint Miniature Munitions Bomb Rack Unit (JMM BRU) is an Air Force (AF) led ACAT III program. It is required for the Department of the Navy's (DoN) carriage of the SDB II weapon in the internal bay of the F-35B and F-35C and operation in the DoN environment. The SDB II Capability Development Document (CDD) states that it must be operable on the Miniature Munitions Smart Rack BRU-61/A. The BRU-61/A, currently in production in the AF, does not meet the needs to operate with SDB II within the F-35 internal bay in the DoN environment. The JMM BRU, designated BRU-61A/A, fills the capability gap required by the DoN. Efforts include development of a dual power capability to meet the SDB II operating environment on the F-35.												
SDB II and the JMM BRU integration were moved from F-35 Block 3 to Block 4. Budgets and schedules have been modified to meet the F-35 Block 4 schedule.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Joint Miniature Munitions Bomb Rack Unit (JMM BRU) Government Support Articles: Description: Funding provided for the SDB II Carriage System support and integration into Navy environments. FY 2014 Accomplishments: Continued with TD Phase. Full manning of JMM BRU government team and conduct DoN logistics efforts for support equipment, specific to JMM BRU. FY 2015 Plans: Complete TD phase and enter Engineering Management and Development (EMD) phase with prime contractor. Full manning of JMM BRU government team and conduct DoN logistics efforts for support equipment specific to JMM BRU. FY 2016 Base Plans: Continue Engineering Management and Development (EMD) phase with prime contractor. Full manning of JMM BRU government team and conduct DoN logistics efforts for support equipment specific to JMM BRU. FY 2016 OCO Plans: N/A								4.408	6.833	5.894	-	5.894
								-	-	-	-	-
Title: Joint Miniature Munitions Bomb Rack (JMM BRU) Prime Contractor								1.832	7.100	5.779	-	5.779

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015							
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>		Project (Number/Name) 3082 / <i>JMM BRU</i>							
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)											
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total					
Articles:		5	-	-	-	-					
Description: Prime Contractor Support of JMM BRU (BRU-61A/A) TD/EMD contract. FY 2014 Accomplishments: Continued TD contract. JMM BRU Prime contractor fully manned to complete TD phase, including building two JMM BRU prototypes, four Inertial Measurement Vehicle (IMV) BRUs, and three JMM BRU simulators in support of SDB II/JMM BRU/JSF integration efforts. FY 2015 Plans: Execute EMD contract. JMM BRU prime contractor fully manned to complete EMD phase. FY 2016 Base Plans: Execute EMD contract. JMM BRU prime contractor fully manned to complete EMD phase. FY 2016 OCO Plans: N/A											
Accomplishments/Planned Programs Subtotals		6.240	13.933	11.673	-	11.673					
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• APN/ BLI 0720: <i>War Consumables</i>	-	-	-	-	-	-	13.616	20.293	55.064	181.129	270.102
Remarks											
D. Acquisition Strategy											
The JMM BRU is an Air Force led ACAT III program. Industry day was held 4Q FY2010, acquisition strategy approved 1Q FY2011 and Material Development Decision (MDD) 2Q FY 2011. Competitive source selection conducted with contract award 3Q FY2013.											
E. Performance Metrics											
Earned value management is being implemented on the TD/EMD contract for the technology demonstration contract.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy													Date: February 2015		
Appropriation/Budget Activity 1319 / 5							R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>				Project (Number/Name) 3082 / <i>JMM BRU</i>				

Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Joint Miniature Munitions Bomb Rack Unit (JMM BRU)	C/FPIF	Raytheon Technical Services Company LLC : Indianapolis, IN	9.700	1.832	Jun 2014	9.821	Apr 2015	7.000	Apr 2016	-		7.000	2.981	31.334	31.334
Subtotal			9.700	1.832		9.821		7.000		-		7.000	2.981	31.334	31.334

Remarks
Funding provided to Raytheon Technical Services Company LLC for development of a JMM BRU SDB II carriage system which satisfies DoN environments. JMM BRU will carry four SDB II's and will be capable of being used both internally and externally.

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
CAATS	Various	NAWC AD : Lakehurst	0.000	1.323	Feb 2014	-		0.386	Feb 2016	-		0.386	2.544	4.253	-
Subtotal			0.000	1.323		-		0.386		-		0.386	2.544	4.253	-

Remarks
Common Aircraft Armament Test Set (CAATS) is the intermediate level test set required for JMM BRU to verify rack functionality. CAATS must be modified to support additional power requirements and interfaces of the JMM BRU.

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Flight Test	TBD	TBD : TBD	0.000	-		-		-		-		-	0.436	0.436	-
Subtotal			0.000	-		-		-		-		-	0.436	0.436	-

Remarks
DT and OT efforts are budgeted for in the SDB II project unit as DT and OT will be for total weapon system. There will be no dedicated JMM BRU DT and OT. Funding in cost to complete will fund captive carry testing in FY17.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy													Date: February 2015		
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>				Project (Number/Name) 3082 / <i>JMM BRU</i>					
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Flight Test conducted will be fit checks on F-35B and F-35C with the new JMM BRU.															
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		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 Complete	Total Cost	Target Value of Contract
Government Support	WR	NAWC WD : China Lake, CA	3.941	2.364	Nov 2013	3.066	Nov 2014	3.165	Nov 2015	-		3.165	Continuing	Continuing	Continuing
Government Support	WR	Various : Various	4.712	0.519	Nov 2013	0.842	Nov 2014	0.872	Nov 2015	-		0.872	1.923	8.868	-
Travel	MIPR	ASC20OG : Eglin AFB, FL	0.121	0.075	Oct 2013	0.075	Oct 2014	0.100	Oct 2015	-		0.100	1.250	1.621	-
Contractor Services	MIPR	AFLCMC : Eglin AFB, FL	0.250	0.127	Dec 2013	0.129	Dec 2014	0.150	Dec 2015	-		0.150	0.750	1.406	-
Subtotal			9.024	3.085		4.112		4.287		-		4.287	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			18.724	6.240		13.933		11.673		-		11.673	-	-	-
Remarks															

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PE 0604329N: *Small Diameter Bomb (SDB)*
Navy

R-1 Line #108

Project (Number/Name)	Start Date	End Date	Duration (Days)	Team Lead	Status	Progress (%)	Budget (USD)	Actual Cost (USD)	Variance (USD)	Risk Level	Notes
101	2023-01-01	2023-03-31	90	John Doe	Completed	100	150000	148000	2000	Low	Project completed ahead of schedule.
102	2023-02-01	2023-05-31	120	Jane Smith	In Progress	75	200000	190000	10000	Medium	Minor delays in procurement.
103	2023-03-01	2023-06-30	120	Mike Johnson	On Hold	20	180000	180000	0	High	Waiting for client approval.
104	2023-04-01	2023-07-31	120	Sarah Lee	Planned	0	220000	0	220000	Low	Initial planning phase.
105	2023-05-01	2023-08-31	120	David Kim	On Hold	10	190000	190000	0	Medium	Resource allocation pending.
106	2023-06-01	2023-09-30	120	Emily White	Planned	0	210000	0	210000	Low	Scope definition in progress.
107	2023-07-01	2023-10-31	120	Chris Brown	Planned	0	230000	0	230000	Medium	Vendor selection underway.
108	2023-08-01	2023-11-30	120	Alex Green	Planned	0	200000	0	200000	Low	Feasibility study ongoing.
109	2023-09-01	2023-12-31	120	Olivia Black	Planned	0	240000	0	240000	Medium	Initial requirements gathering.
110	2023-10-01	2024-01-31	120	Noah Grey	Planned	0	250000	0	250000	Low	Project charter approved.
111	2023-11-01	2024-02-28	118	Ava Blue	Planned	0	260000	0	260000	Medium	Stakeholder interviews scheduled.
112	2023-12-01	2024-03-31	120	Liam Yellow	Planned	0	270000	0	270000	Low	Project initiation phase.
113	2024-01-01	2024-04-30	120	Mia Purple	Planned	0	280000	0	280000	Medium	Resource allocation confirmed.
114	2024-02-01	2024-05-31	120	Ethan Red	Planned	0	290000	0	290000	Low	Scope and budget defined.
115	2024-03-01	2024-06-30	120	Sophia Pink	Planned	0	300000	0	300000	Medium	Vendor selection process initiated.
116	2024-04-01	2024-07-31	120	Lucas Orange	Planned	0	310000	0	310000	Low	Initial project plan developed.
117	2024-05-01	2024-08-31	120	Isabella Light Blue	Planned	0	320000	0	320000	Medium	Stakeholder communication plan.
118	2024-06-01	2024-09-30	120	Mason Light Green	Planned	0	330000	0	330000	Low	Project charter and plan approved.
119	2024-07-01	2024-10-31	120	Evelyn Light Yellow	Planned	0	340000	0	340000	Medium	Resource allocation confirmed.
120	2024-08-01	2024-11-30	120	Benjamin Light Purple	Planned	0	350000	0	350000	Low	Scope and budget defined.
121	2024-09-01	2024-12-31	120	Charlotte Light Red	Planned	0	360000	0	360000	Medium	Vendor selection process initiated.
122	2024-10-01	2025-01-31	120	Henry Light Orange	Planned	0	370000	0	370000	Low	Initial project plan developed.
123	2024-11-01	2025-02-28	118	Amelia Light Pink	Planned	0	380000	0	380000	Medium	Stakeholder communication plan.
124	2024-12-01	2025-03-31	120	James Light Green	Planned	0	390000	0	390000	Low	Project charter and plan approved.
125	2025-01-01	2025-04-30	120	Harper Light Yellow	Planned	0	400000	0	400000	Medium	Resource allocation confirmed.
126	2025-02-01	2025-05-31	120	William Light Purple	Planned	0	410000	0	410000	Low	Scope and budget defined.
127	2025-03-01	2025-06-30	120	Evelyn Light Red	Planned	0	420000	0	420000	Medium	Vendor selection process initiated.
128	2025-04-01	2025-07-31	120	Benjamin Light Orange	Planned	0	430000	0	430000	Low	Initial project plan developed.
129	2025-05-01	2025-08-31	120	Charlotte Light Pink	Planned	0	440000	0	440000	Medium	Stakeholder communication plan.
130	2025-06-01	2025-09-30	120	James Light Green	Planned	0	450000	0	450000	Low	Project charter and plan approved.
131	2025-07-01	2025-10-31	120	Harper Light Yellow	Planned	0	460000	0			

PE 0604329N / *Small Diameter Bomb (SDB)*

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604329N / <i>Small Diameter Bomb (SDB)</i>	Project (Number/Name) 3082 / <i>JMM BRU</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Joint Miniature Munitions Bomb Rack Unit (JMM BRU)</i>				
Acquisition Milestonees: Milestones: Milestone B	4	2015	4	2015
Acquisition Milestonees: Milestones: Milestone C	2	2018	2	2018
Acquisition Milestonees: Milestones: Full Rate Production (FRP) Decision	1	2020	1	2020
Systems Development: Hardware Development: Technology Development	1	2014	3	2015
Systems Development: Hardware Development: Engineering Manufacturing and Development (EMD)	3	2015	2	2018
Systems Development: Reviews: Preliminary Design Review (PDR)	2	2015	2	2015
Systems Development: Reviews: Critical Design Review (CDR)	1	2016	1	2016
Test & Evaluation: Technical Evaluation: Design Verification	4	2014	1	2016
Test & Evaluation: Technical Evaluation: Environmental Qualification	3	2016	4	2017
Test & Evaluation: Technical Evaluation: EMD Flight Test	2	2018	2	2020
Procurement: LRIP 1 Contract Award	2	2018	2	2018
Procurement: LRIP 2 Contract Award	2	2019	2	2019
Procurement: FRP Contract Award (Lot 3)	2	2020	2	2020
Deliveries: LRIP 1 Deliveries	4	2019	4	2019
Deliveries: LRIP 2 Deliveries	4	2020	4	2020