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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0604659N: (U)Precision Strike Weapons Development Program							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	5.322	3.450	5.654	-	5.654	2.269	-	-	-	0.000	16.695
3214: Fuze Development Program	5.322	3.450	5.654	-	5.654	2.269	-	-	-	0.000	16.695

## Note

1. Project 3214: The FMU-164/B Bomb Fuze program was cancelled on April 25, 2011. The Hard Target Void Sensing Fuze (HTVSF) is the remaining project under Project Unit 3214.
2. The Offensive Anti-Surface Warfare Weapon Program transitioned from Program Element (PE) 0604659N Project Unit (PU) 3337 to PE 0604786N PU 3337

## A. Mission Description and Budget Item Justification

The Precision Strike Weapons Development program provides for initial and continuing development of strike weapons consisting of armament, munitions, and weapon subsystems to allow for the horizontal integration among current and future weapon system capabilities to include Anti-Surface Warfare and the weaponization of Unmanned Aerial Systems. This program provides for the development of weapon and weapon system technologies to address urgent requirements for enhanced and alternative weapon system capability requirements that include selectable output weapons, low collateral damage weapons, precision lethality weapons, alternative warhead technology, scaled munitions, DoD fuzing systems, sensors, extended range weapons and precision guided training round technology.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	25.121	22.665	26.324	-	26.324
Current President's Budget	5.322	3.450	5.654	-	5.654
Total Adjustments	-19.799	-19.215	-20.670	-	-20.670
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-19.215			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Program Adjustments	-	-	-20.683	-	-20.683
• Rate/Misc Adjustments	-	-	0.013	-	0.013
• Congressional Recision Adjustments	-19.671	-	-	-	-
• Congressional General Reductions	-0.128	-	-	-	-
Adjustments					

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604659N: (U)Precision Strike Weapons Development Program	
<u>Change Summary Explanation</u> FMU-164/B Bomb Fuze program was cancelled on April 25, 2011.  Hard Target Void Sensing Fuze schedule updated to show an Engineering and Manufacturing Development contract award with 62 deliveries starting in 4th QTR of FY11 and Ending in 2 QTR of FY14.  The Offensive Anti-Surface Warfare Weapon Program transitioned from Program Element (PE) 0604659N Project Unit (PU) 3337 to PE 0604786N PU 3337		

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**Exhibit R-2A, RDT&E Project Justification:** PB 2013 Navy **DATE:** February 2012

<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0604659N: <i>(U)Precision Strike Weapons Development Program</i>				<b>PROJECT</b> 3214: <i>Fuze Development Program</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
3214: <i>Fuze Development Program</i>	5.322	3.450	5.654	-	5.654	2.269	-	-	-	0.000	16.695
Quantity of RDT&E Articles	30	26	3	0	3	0	0	0	0		

**Note**

On April 25, 2011, the Department of the Navy made the decision to cancel FMU-164/B Bomb Fuze program. The program was identified in the FY12 National Defense Authorization Act chairman's marks.

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

The Fuze Development Program provides for the development of alternative and innovative fuze system and fuze sensor technologies to improve the reliability, capability and production characteristics of fuze products. This program also provides for emerging technology insertion to improve the performance and maintainability characteristics of current and future fuze and fuze sensor technologies.

On April 25, 2011, the decision to cancel the FMU-164/B Bomb Fuze program was made based upon the Navy's holistic analysis of current bomb fuzing systems and budgetary concerns versus the program's return on investment. Required funding is being retained to execute an orderly program cancellation and to support ongoing product improvement efforts for existing fuze configurations. Current software updates including H8, H10, H6.1, and 25X Operational Flight Program integration testing will continue to support integration of product improvements for existing fuze configurations.

The Hard Target Void Sensing Fuze (HTVSF) is an FY08 Joint Capability Technology Demonstration (JCTD) sponsored by United States Strategic Command in coordination with the United States Air Force and United States Navy. The JCTD was a 27 month risk reduction program that was awarded to two Contractors in 3rd QTR FY08 to perform design, test, and manufacturing activities leading to a down-select to a single Contractor for Engineering Manufacturing Development (EMD) and production. The JCTD was completed in 3th QTR FY10 and the EMD contract was awarded to a single Contractor in 2nd QTR FY11. HTVSF is designed to prosecute harder, deeper, and more complex targets that exceeded design parameters of existing conventional kinetic strike capabilities. HTVSF will be used only with BLU-109 Joint Direct Attack Munitions.

Note: First test article quantity for HTVSF includes FY11-Quantity 30, FY 12-Quantity 26 , FY13-Quantity 3, FY14-Quantity 3

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

	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>
<b>Title:</b> Hard Target Void Sensing Fuze (HTVSF) Hardware Development	5.322	3.450	5.654	-	5.654
<b>Articles:</b>	30	26	3		3

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Navy							<b>DATE:</b> February 2012				
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>			<b>R-1 ITEM NOMENCLATURE</b> PE 0604659N: <i>(U)Precision Strike Weapons Development Program</i>			<b>PROJECT</b> 3214: <i>Fuze Development Program</i>					
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>											
						<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	
<b>Description:</b> HTVSF hardware development funding will be used to qualify the fuze booster as part of the BLU-109 explosive train and begin F/A-18E/F software OFP development.  <b>FY 2011 Accomplishments:</b> Funding was used for F/A-18 OFP development, mission planning, procure sled and flight test hardware, execute tests and procure Engineering Manufacturing Development (EMD) test assets.  <b>FY 2012 Plans:</b> Continue F/A-18 E/F integration, begin mission planning software, procure additional EMD test assets and conduct testing.  <b>FY 2013 Base Plans:</b> Continue F/A-18 E/F integration, continue mission planning software, procure additional EMD test assets and conduct testing.											
<b>Accomplishments/Planned Programs Subtotals</b>						5.322	3.450	5.654	-	5.654	
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013 Base</b>	<b>FY 2013 OCO</b>	<b>FY 2013 Total</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• Proc/PE 020803: <i>USAF</i>	0.000	0.000	0.000	0.000	0.000	39.300	38.500	39.500	0.000	0.000	117.300
• RDTE/ PE 064635F: <i>Air Force (SDD)</i>	32.500	24.500	5.200	0.000	5.200	10.000	0.000	0.000	0.000	0.000	72.200
• PAN&MC/014500: <i>General Purpose Bombs HTVSF</i>	0.000	0.000	0.000	0.000	0.000	2.000	4.300	4.386	0.000	0.000	10.686
<b>D. Acquisition Strategy</b>											
The Hard Target Void Sensing Fuze (HTVSF) Joint Capability Technology Demonstration (JCTD) is a risk reduction effort. The JCTD supported two competitively selected sources for development and testing of initial prototyping. Following the JCTD, a down select to a single source occurred, awarding a contract to ATK in FY11. Engineering Manufacturing Development phase is ongoing and Low Rate Initial Production contract award is planned for FY14 and Full Rate Production in FY15.											
<b>E. Performance Metrics</b>											
HTVSF achieved MS B 2nd QTR FY11.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0604659N: (U)Precision Strike Weapons Development Program				PROJECT 3214: Fuze Development Program					
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development HTVSF	C/FPIF	ATK:Keyser, WV	2.292	-	Jan 2012	0.421	Feb 2013	-	Feb 2013	0.421	0.411	3.124	3.124
Subtotal			2.292	-		0.421		-		0.421	0.411	3.124	3.124
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development FMU-164	WR	NAWC WC:China Lake, CA	2.185	-		-		-		-	0.000	2.185	
Software Development FMU-164	SS/CPIF	Boeing:St.Louis, MO	0.709	-		-		-		-	0.000	0.709	
Integrated Logistic Support FMU-164	WR	NAWC AD:Patuxent River, MD	0.072	-		-		-		-	0.000	0.072	
Software Development FMU-164	MIPR	Air Force:Eglin AFB, FL	0.731	-		-		-		-	0.000	0.731	
Software Development HTVSF	WR	NAWC WD:China Lake, CA	2.677	0.900	Nov 2011	1.000	Dec 2012	-		1.000	0.300	4.877	
Software Development HTVSF	C/CPIF	Boeing:St.Louis, MO	1.679	0.326	Mar 2012	0.350	Mar 2013	-		0.350	0.150	2.505	2.505
Integrated Logistic Support HTVSF	WR	NAWC AD:Patuxent River, MD	0.037	0.043	Nov 2011	0.023	Nov 2012	-		0.023	0.015	0.118	
Prior years cost no longer funded in the FYDP	Various	Various:Various	0.250	-		-		-		-	0.000	0.250	
Subtotal			8.340	1.269		1.373		-		1.373	0.465	11.447	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0604659N: (U)Precision Strike Weapons Development Program				3214: Fuze Development Program					
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation FMU-164	WR	NAWC AD:Patuxent River, MD	1.500	-		-		-		-	0.000	1.500	
Operational Test & Evaluation FMU-164	WR	OPTVFOR:Norfolk, VA	0.280	-		-		-		-	0.000	0.280	
Development Test & Evaluation HTVSF	WR	OPTVFOR:Norfolk, VA	0.040	0.020	Nov 2011	0.020	Nov 2012	-		0.020	0.040	0.120	
Operational Test & Evaluation HTVSF	WR	NAWC AD:Patuxent River, MD	-	0.900	Nov 2011	0.400	Nov 2012	-		0.400	0.200	1.500	
Operational Test & Evaluation HTVSF	MIPR	Air Force:Eglin AFB, FL	-	-		0.674	Nov 2012	-		0.674	0.200	0.874	
Development Test & Evaluation HTVSF	WR	NAWC WD:China Lake, CA	-	-		1.400	Nov 2012	-		1.400	0.250	1.650	
Operational Test & Evaluation HTVSF	WR	Various:Various	-	0.200	Nov 2011	0.100	Nov 2012	-		0.100	0.250	0.550	
Prior years cost no longer funded in the FYDP	Various	Various:Various	7.559	-		-		-		-	0.000	7.559	
Subtotal			9.379	1.120		2.594		-		2.594	0.940	14.033	
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support FMU-164	WR	NAWC WD:China Lake, CA	2.228	-		-		-		-	0.000	2.228	
Government Support FMU-164	WR	NAWC AD:Patuxent River, MD	1.852	-		-		-		-	0.000	1.852	
Program Management Support FMU-164	WR	Various:Various	0.551	-		-		-		-	0.000	0.551	
Program Management Support FMU-164	C/CPFF	NAWC AD:Patuxent River, MD	2.366	-	Dec 2011	-		-		-	0.000	2.366	2.366
Travel	Various	NAWC AD:Patuxent River, MD	0.148	0.010	Jan 2012	0.028	Jan 2013	-		0.028	0.060	0.246	

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604659N: <i>(U)Precision Strike Weapons Development Program</i>	<b>PROJECT</b> 3214: <i>Fuze Development Program</i>
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Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Support HTVSF	WR	NAWC WD:China Lake, CA	1.800	0.801	Nov 2011	0.894	Nov 2012	-		0.894	0.200	3.695	
Government Support HTVSF	WR	NAWC AD:Patuxent River, MD	0.500	0.250	Nov 2011	0.190	Nov 2012	-		0.190	0.200	1.140	
Management Support HTVSF	C/FFP	NAWC AD:Patuxent River, MD	-	-		0.154	Dec 2012	-		0.154	0.200	0.354	0.400
<b>Subtotal</b>			9.445	1.061		1.266		-		1.266	0.660	12.432	
			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			29.456	3.450		5.654		-		5.654	2.476	41.036	

**Remarks**

On April 25, 2011, the DoN cancelled the FMU-164/B Bomb Fuze program. FY11 funding will be used for termination costs, which are being finalized. H.R. 1540 National Defense Authorization Act recommends an \$18.2M reduction to FY12 to support program cancellation.

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604659N: <i>(U)Precision Strike Weapons Development Program</i>	<b>PROJECT</b> 3214: <i>Fuze Development Program</i>
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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604659N: <i>(U)Precision Strike Weapons Development Program</i>	<b>PROJECT</b> 3214: <i>Fuze Development Program</i>
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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0604659N: <i>(U)Precision Strike Weapons Development Program</i>	<b>PROJECT</b> 3214: <i>Fuze Development Program</i>	

**Schedule Details**

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Hard Target Void Sensing Fuze (HTVSF)</i></b>				
Acquisition Milestones: Milestones: Milestone B (MS B)	2	2011	2	2011
Acquisition Milestones: Milestones: Full Rate Production Decision (FRPD)	3	2015	3	2015
Acquisition Milestones: Milestones: Milestone C (MS C)	3	2014	3	2014
Acquisition Milestones: Milestones: IOC	4	2015	4	2015
Systems Development: Hardware Development: Transition to Engineering, Manufacturing, and Development Phase (EMD)	1	2011	2	2011
Systems Development: Hardware Development: Engineering, Manufacturing, and Development Phase (EMD)	3	2011	2	2014
Systems Development: Reviews: EMD Critical Design Review (CDR)	4	2011	4	2011
Systems Development: Contract Award: Engineering, Manufacturing, and Development Phase (EMD)	2	2011	2	2011
Systems Development: Test Unit Deliveries: 62 Test Deliveries	4	2011	2	2014
Test & Evaluation: Technical Evaluation: Developmental Test and Evaluation (DT&E)	4	2011	2	2014
Test & Evaluation: Operational Evaluation: Intergrational Operational Test and Evaluation (IOT&E)	1	2015	2	2015
Production Milestones: Contract Awards: Low-Rate Initial Production (LRIP) Award (PANMC)	3	2014	3	2014
Production Milestones: Contract Awards: Full Rate Production-1 (FRP) Award (PANMC)	4	2015	4	2015
Production Milestones: Contract Awards: Full Rate Production-2 (FRP) Award (PANMC)	3	2016	3	2016
Deliveries: LRIP Deliveries 50 (PANMC)	2	2015	2	2016
Deliveries: FRP 1 Deliveries 225 (PANMC)	2	2016	2	2017

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Navy			<b>DATE:</b> February 2012	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 1319: <i>Research, Development, Test &amp; Evaluation, Navy</i> BA 4: <i>Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0604659N: <i>(U)Precision Strike Weapons Development Program</i>		<b>PROJECT</b> 3214: <i>Fuze Development Program</i>
		<b>Start</b>		<b>End</b>
<b>Events by Sub Project</b>		<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>
<b>FMU-164/Bomb Fuze</b>				
Systems Development: Hardware Development: Technology Development Phase Close out Tasking		1	2011	4 2012