

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification					DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4					R-1 ITEM NOMENCLATURE 0604659N, Precision Strike Weapons Development Program			
COST (\$ in Millions)	FY 2008	FY 2009	FY 2010					
Total PE Cost	0.000	0.000	40.926					
3214 Fuze Development Program	0.000	0.000	28.510					
3215 Strike Weapons Technology Demonstrations	0.000	0.000	12.416					
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>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. This program will also provide the Navy with the opportunity to improve upon the accuracy, lethality, inoperability, and overall effectiveness of current and future precision strike weapons. This program element was established in FY2010 and includes the new start project units FMU-164 Fuze and Hard Target Void Sensing Fuze (HTVSF) (PU: 3214) and Strike Weapons Technology Demonstration (SWTD) (PU: 3215).</p> <p>Project 3214 - The current funding profile provides funding for the FMU-164/Bomb Fuze and the Hard Target Void Sensing Fuze (HTVSF) . The system design and development of the FMU-164/B Bomb Fuze is intended to upgrade and expand the capabilities of the Navy's bomb fuze inventory. The FMU-164/B Bomb Fuze provides the Warfighter with next-generation bomb fuze capability including a Serial Data Interface (SDI), which provides additional in-flight cockpit selectable fuze arm/functional delay times and provides increased reliability. The FMU-164/B is used to initiate General Purpose (GP), penetrator, Joint Direct Attack Munition (JDAM), and Laser Guided Bomb (LGB) weapons . The FMU-164/B will reduce the Navy fuze footprint by combining capabilities of the existing FMU-139C/B an FMU-143 fuze. The HTVSF meets a capability gap requirement for harder, deeper and more complex targets. The HTVSF will provide in-flight cockpit reprogramming with fuze time delay options providing aircrew the ability to detonate penetrating bombs at various levels within multi-story complex target facilities.</p> <p>Project 3215 - The overall intent of the Strike Weapons Technology Demonstration (SWTD) is to demonstrate, operationally assess, rapidly deploy, and transition capability solutions and innovative concepts to address the joint, coalition and interagency operational gaps and shortfalls. The Combatant Commands drive SWTDs through their stated operational priorities and needs, which are applied to an agile acquisition process that yields results years ahead of traditional material development cycles.</p> <p>The SWTD will demonstrate robust, end-to-end kill chains of enemy surface combatants. Intelligence Surveillance and Reconnaissance (ISR) platforms will include the USAF E-8 Joint Surveillance Targeting Attack Radar System (JSTARS) and the USN P-3 Littoral Surveillance Radar System (LSRS). The launch platform will be the FA-18 Hornet. Weapons will include the AGM-154C Joint Stand-off Weapon (JSOW-C-1), AGM-84M Harpoon Block III, and the AGM-84K Stand-off Land Attack Missile-Expanded Response (SLAM-ER). In the case of the SLAM-ER, the FA-18 will translate ISR Link-16 targeting information and transmit that information to the SLAM-ER with J3.3/J3.5 messages via the AWW-13 pod. By implication, USN Harpoon-equipped surface combatants will be capable of employing their surface-launched Harpoons in a similar fashion. The focus will be on in-flight targeting messages going directly from the ISR platforms to the weapons themselves.</p>								

R-1 SHOPPING LIST - Item No. 78

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: May 2009
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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-4	R-1 ITEM NOMENCLATURE 0604659N, Precision Strike Weapons Development Program
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B. PROGRAM CHANGE SUMMARY:

Funding:	FY08	FY09	FY10
Previous President's Budget:	0.000	0.000	0.000
Current BES	0.000	0.000	40.926
Total Adjustments	0.000	0.000	40.926

Summary of Adjustments

Congressional Rescissions			
Congressional Adjustments			
SBIR/STTR/FTT Assessments			
Program Adjustments			40.928
Rate/Misc Adjustments			-0.002
Subtotal	0.000	0.000	40.926

Schedule: Not Applicable

Technical: Not Applicable

R-1 SHOPPING LIST - Item No. 78

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4		PROGRAM ELEMENT NUMBER AND NAME 0604659N, Precision Strike Weapons Development Program			PROJECT NUMBER AND NAME 3214, Fuze Development Program			
COST (\$ in Millions)		FY 2008	FY 2009	FY 2010				
Project Cost		0.000	0.000	28.510				
RDT&E Articles Qty (Note 1)				289				

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. This program will also provide the Navy with the opportunity to improve upon the accuracy, lethality, inoperability, and overall effectiveness of current and future precision strike weapons.

The current funding profile provides funding for the FMU-164/Bomb Fuze and the Hard Target Void Sensing Fuze (HTVSF) . The system design and development of the FMU-164/B Bomb Fuze is intended to upgrade and expand the capabilities of the Navy's bomb fuze inventory. The FMU-164/B Bomb Fuze provides the Warfighter with next-generation bomb fuze capability including a Serial Data Interface (SDI), which provides additional in-flight cockpit selectable fuze arm/functional delay times and provides increased reliability. The FMU-164/B is used to initiate General Purpose (GP), penetrator, Joint Direct Attack Munition (JDAM), and Laser Guided Bomb (LGB) weapons . The FMU-164/B will reduce the Navy fuze footprint by combining capabilities of the existing FMU-139C/B an FMU-143 fuse. The HTVSF meets a capability gap requirement for harder, deeper and more complex targets. The HTVSF will provide in-flight cockpit reprogramming with fuze time delay options providing aircrew the ability to detonate penetrating bombs at various levels within multi-story complex target facilities.

Note: First article quantity includes FMU-164/B (FY10-Quantity 284) and Hard Target Void Sensing Fuze (FY10-Quantity 5).

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: May 2009
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0604659N, Precision Strike Weapons Development Program	PROJECT NUMBER AND NAME 3214, Fuze Development Program
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B. Accomplishments/Planned Program

FMU-164/B PRIMARY HARDWARE DEVELOPMENT	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	23.696	
RDT&E Articles Quantity			284	

Funding is for FMU-164/B prototype development, fabrication and confidence testing of the prototypes. This phase of testing includes Explosive Train Qualifications tests and Target Penetration (sled) tests. These tests will be conducted to gather design information. RDT&E test units are consumed during testing by the contractor.

FMU-164/B DESIGN QUALIFICATION	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	1.314	
RDT&E Articles Quantity				

Funding is for FMU-164/B fabrication and testing of design qualification fuzes. Testing includes: Insensitive Munition, Hazard Classification, Electro-Magnetic Environment, Product Oriented Packaging and Target Penetration (sled) tests.

HARD TARGET VOID SENSING HARDWARE DEVELOPMENT	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	3.500	
RDT&E Articles Quantity			5	

Funding is for Hard Target Void Sensing Hardware development, prototyping and confidence testing. This phase includes explosive train qualification test and target penetration tests.

R-1 SHOPPING LIST - Item No. 78

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0604659N, Precision Strike Weapons Development Program	PROJECT NUMBER AND NAME 3214, Fuze Development Program								
<p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;"><u>Line Item No. & Name</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2008</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2009</u></th> <th style="text-align: center; border-bottom: 1px solid black;"><u>FY 2010</u></th> </tr> </thead> <tbody> <tr> <td colspan="4" style="padding: 5px;">Not Applicable</td> </tr> </tbody> </table> <p>D. ACQUISITION STRATEGY:</p> <p>The FMU-164/B will provide a capability upgrade to the existing FMU-139 and FMU-143 Bomb Fuzes. The capability upgrades include in-flight cockpit selectability via a Serial Data Interface and increased reliability. The FMU-164/B will also be Insensitive Munition compliant. Program plan consists of System Design and Demonstration in FY10 followed by Low Rate Initial Production in FY13 and Full Rate Production in FY14. The Hard Target Void Sensing Fuze Joint Capabilities Technology Demonstration (JCTD) is considered a risk reduction effort. The JCTD supports 2 competitively selected sources for development and testing of initial prototyping. Following the JCTD, a down select to a single source will occur and enter into a 33 month SDD effort followed by LRI and FRP.</p>			<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	Not Applicable			
<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>							
Not Applicable										

R-1 SHOPPING LIST - Item No. 78

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)							DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-4			0604659N, Precision Strike Weapons Development Program			3214, Fuze Development Program					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date				
TEST & EVALUATION											
Subtotal T&E			0.000	0.000		0.000					
Remarks:											
MANAGEMENT											
Contractor Engineering Support	C/CPFF	TBD				0.303	12/09				
Government Engineering Support	WX	Various				2.262	12/09				
Program Management Support	C/CPFF	TBD				0.200	12/09				
Travel	TO	NAVAIR, Patuxent River				0.065	10/09				
Subtotal Management			0.000	0.000		2.830					
Remarks:											
Total Cost			0.000	0.000		28.510					
Remarks:											

CLASSIFICATION:

EXHIBIT R4, Schedule Profile													DATE: May 2009				
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME							
RD&E, N BA-4					0604659N, Precision Strike Weapons Development Program					3214, Fuze Development Program							
Fiscal Year	FY 2008				FY 2009				FY 2010								
	1	2	3	4	1	2	3	4	1	2	3	4					
FMU-164/Bomb Fuze Acquisition Milestones										★ MS B							
Development Phase																	
Development Critical Events																	
Test Unit Deliveries																	
Test & Evaluation Milestones																	
Developmental Test																	
Integrated Operational T & E																	
Production Milestones																	
Low Rate Initial Production																	
Full Rate Production																	
Deliveries																	

R-1 SHOPPING LIST - Item No. 78

CLASSIFICATION:

EXHIBIT R4, Schedule Profile													DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RD&E, N BA-4					0604659N, Precision Strike Weapons Development Program					3214, Fuze Development Program					
Fiscal Year	FY 2008				FY 2009				FY 2010						
	1	2	3	4	1	2	3	4	1	2	3	4			
Hard Target Void Sensing Fuze (HTVSF)															
Acquisition Milestones														△ MS B	
Development Phase														JCTD	EMD
Development Critical Events														△ CDR	
Test Unit Deliveries															
Test & Evaluation Milestones															
Developmental Test															
Integrated Operational T & E															
Production Milestones															
Low Rate Initial Production															
Full Rate Production															
Deliveries															

Note: Program funded in Small Diameter Bomb PE 0604329N in FY09

R-1 SHOPPING LIST - Item No. 78

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4		PROGRAM ELEMENT NUMBER AND NAME 0604659N, Precision Strike Weapons Development Program			PROJECT NUMBER AND NAME 3215, Strike Weapons Technology Demonstrations			
COST (\$ in Millions)		FY 2008	FY 2009	FY 2010				
Project Cost		0.000	0.000	12.416				
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The overall intent of the Strike Weapons Technology Demonstrations (SWTD) is to demonstrate, operationally assess, rapidly deploy, and transition capability solutions and innovative concepts to address the joint, coalition and interagency operational gaps and shortfalls. The Combatant Commands drive SWTDs through their stated operational priorities and needs, which are applied to an agile acquisition process that yields results years ahead of traditional material development cycles.

The SWTD will demonstrate robust, end-to-end kill chains of enemy surface combatants. Intelligence Surveillance and Reconnaissance (ISR) platforms will include the USAF E-8 Joint Surveillance Targeting Attack Radar System (JSTARS) and the USN P-3 Littoral Surveillance Radar System (LSRS). The launch platform will be the FA-18 Hornet. Weapons will include the AGM-154C Joint Stand-off Weapon (JSOW-C-1), AGM-84M Harpoon Block III, and the AGM-84K Stand-off Land Attack Missile-Expanded Response (SLAM-ER). In the case of the SLAM-ER, the FA-18 will translate ISR Link-16 targeting information and transmit that information to the SLAM-ER with J3.3/J3.5 messages via the AWW-13 pod. By implication, USN Harpoon-equipped surface combatants will be capable of employing their surface-launched Harpoons in a similar fashion. The focus will be on in-flight targeting messages going directly from the ISR platforms to the weapons themselves.

R-1 SHOPPING LIST - Item No. 78

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0604659N, Precision Strike Weapons Development Program	PROJECT NUMBER AND NAME 3215, Strike Weapons Technology Demonstration

B. Accomplishments/Planned Program

JSUW Demonstration	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.000	0.000	12.416	
RDT&E Articles Quantity				

The SWTD will exploit the success of the Weapons Data Link Network (WDLN) Advanced Concept Technology Demonstration (ACTD) and its networking protocols by integrating the WDLN messages into Intelligence Surveillance and Reconnaissance platforms; the launch platform and weapons will integrate the messages as part of their programs of record. Platform modifications will be centered around the integration of the WDLN messages (hereafter referred to as the Net-Enabled Weapon (NEW) messages) into aircraft mission computers to transmit and receive joint targeting data. Weapon modifications (outside of JSuW SWTD funding but included as part of the capability) include the avionics changes necessary to transmit and receive the WDLN message set to enable targeting of surface ships.

R-1 SHOPPING LIST - Item No. 78

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: May 2009
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-4	PROGRAM ELEMENT NUMBER AND NAME 0604659N, Precision Strike Weapons Development Program	PROJECT NUMBER AND NAME 3215, Strike Weapons Technology Demonstration
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C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Not Applicable			

D. ACQUISITION STRATEGY:

The contracting strategy for JSuW SWTD is planned to be sole source for the duration of the demonstration. Cost type contracts will be utilized with Raytheon for Littoral Surveillance Radar System, and Northrop Grumman for Joint Surveillance Targeting Attack Radar System (JSTARS). In addition, funds will be provided to the current Programs of Record contracts for JSOW (Raytheon, Tucson Arizona), Harpoon (Boeing, St. Charles, Missouri), and F/A-18E/F (Boeing, St. Louis, Missouri).

R-1 SHOPPING LIST - Item No. 78

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-4			0604659N, Precision Strike Weapons Development Program			3215, Strike Weapons Technology Demonstration					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date				
Test & Evaluation											
Developmental Test & Evaluation	WX	NAWCWD, China Lake, CA				0.966	11/09				
Developmental Test & Evaluation	WX	COMOPTEVFOR, Norfolk VA				0.450	11/09				
Subtotal T&E						1.416					
Remarks:											
Management											
Contractor Engineering Support	RX	NAVSEA, Washington, DC				0.310	11/09				
Government Engineering Support	WX	NAWCWD, China Lake, CA				1.150	11/09				
Government Engineering Support	WX	NAWCAD, Patuxent River, MD				0.466	11/09				
Government Engineering Support	MP	Air Force ACC, Eglin AFB, FL				0.400	11/09				
Subtotal Management						2.326					
Remarks:											
Total Cost						12.416					
Remarks:											

R-1 SHOPPING LIST - Item No. 78

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

DATE:

May 2009

APPROPRIATION/BUDGET ACTIVITY

RDT&E, N / BA-4

PROGRAM ELEMENT NUMBER AND NAME

0604659N, Precision Strike Weapons Development Program

PROJECT NUMBER AND NAME

3215, Strike Weapons Technology Demonstration

Fiscal Year	2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JSuW SWTD												
Phase II Demonstration												
Lab Test									Lab Test			
Ground Test									Grd Test			
Flight Test										Flt Test		
Test Report											Test Rpt	
COTF Operational Utility Assessment (OUA)												OUA

