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CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification								DATE: February 2002		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5						R-1 ITEM NOMENCLATURE 0604727N Joint Standoff Weapon System				
COST (\$ in Millions)	Prior Years Cost	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Total PE Cost	675.071	26.653	26.615	16.652	0.796	0.596	0.396	0.346		747.125
A2068 Joint Standoff Weapon (JSOW)	675.071	26.653	26.615	16.652	0.796	0.596	0.396	0.346		747.125
Quantity of RDT&E Articles	3	3	19							25
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>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. The JSOW Baseline (AGM-154A) variant includes a kinematically efficient airframe, an integrated Inertial/Global Positioning System (INS/GPS) navigation capability, and a BLU-97/B submunition payload. This weapon is designed up front for pre-planned product improvements. The JSOW/BLU-108 (AGM-154B) variant incorporates the Sensor Fuze Weapon submunition (BLU-108) into the baseline vehicle. The JSOW/BLU-108 variant will provide a standoff delivery capability against massed armor and land combat vehicles. The JSOW Unitary (AGM-154C) variant has a terminal seeker, Autonomous Target Acquisition (ATA) capability, and a unitary warhead to enable the attack of blast/fragmentation targets. The JSOW/BLU-108 MOT&E is scheduled to begin in FY03 after an 18 month LCCS ECP effort that started in FY01. The JSOW Unitary will provide increased accuracy and lethality and the capability for aimpoint selection. The Unitary Systems Development and Demonstration (SD&D) phase of the program concludes with the completion of Operational Evaluation (OPEVAL). A Low Rate Initial Production Contract Award is planned for FY-03. Through adherence to international standards for weapons interfaces and weight and dimension considerations, JSOW will be compatible with Air Force and NATO aircraft. JSOW is a joint Navy/Air Force program.</p> <p>The Unitary SD&D program phase incorporates a 500 lb class "Unitary" warhead that includes the integration of the Broach Multiple Warhead System (MWS) into the JSOW AGM-154C variant. This is an FY01 Congressionally approved New Start effort. The Broach MWS provides blast/fragmentation effects as well as enhanced penetration capability against hard point targets. The Broach MWS development and integration risk is reduced significantly by the on going Broach developmental efforts of the United Kingdom Storm Shadow Program, the JSOW Foreign Warhead Comparative Testing previously conducted, and the early provisioning for Broach in the JSOW Unitary Roadmap.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it encompasses development and demonstration of new end-items prior to production approval decision.</p>										

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RDT&E, N / BA-5	0604727N Joint Standoff Weapon System					A2068 Joint Standoff Weapon (JSOW)					
COST (\$ in Millions)	Prior Years Cost	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program	
Project Cost	675.071	26.653	26.615	16.652	0.796	0.596	0.396	0.346		747.125	
RDT&E Articles Qty	3	3	19							25	

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RDT&E, N / BA-5	0604727N Joint Standoff Weapon System	A2068 Joint Standoff Weapon (JSOW)
(U) PROGRAM ACCOMPLISHMENTS AND PLANS:		
1. FY 2001 ACCOMPLISHMENTS:		
(U) Unitary:		
(\$17.235) Continued SD&D efforts, configuration audits and environmental testing		
(\$ 2.117) Conducted combined Development Testing and Operational Testing (DT/OT)		
(\$ 2.186) Continued systems engineering technical support; completed insensitive munitions qualification and system safety approvals		
(\$ 5.100) Started Broach Warhead development		
(U) BLU-108		
(\$.015) Performed MOT&E planning/preparations		
2. FY 2002 PLANS:		
(U) Unitary:		
(\$18.093) Continue SD&D efforts, configuration audits and environmental testing and perform Broach integration		
(\$ 4.900) Continue Broach Warhead development		
(\$ 2.045) Conduct combined Development Testing and Operational Testing (DT/OT)		
(\$.771) Continue systems engineering technical support; complete insensitive munitions qualification and system safety approvals		
(\$.806) Portion of extramural program reserved for Small Business Innovaion Research assessment in accordance with 15 USC 638		
3. FY 2003 PLANS:		
(U) Unitary:		
(\$ 7.552) Continue SD&D efforts, configuration audits and environmental testing and perform Broach integration		
(\$ 2.900) Continue Broach Warhead development		
(\$ 4.200) Conduct combined Development Testing and Operational Testing (DT/OT)		
(\$ 0.800) Continue systems engineering technical support; complete insensitive munitions qualification and system safety approvals		
(U) BLU-108		
(\$ 1.000) Conduct combined Development Testing and Operational Testing (DT/OT)		
(U) Baseline		
(\$ 0.200) JMPS Migration		

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N / BA-5	0604727N Joint Standoff Weapon (JSOW)			A2068 Joint Standoff Weapon (JSOW)				
(U) B. PROGRAM CHANGE SUMMARY:								
	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>					
(U) FY 2002 President's Budget:	27.694	26.849						
(U) Adjustments from the FY2002 President's Budget:	-1.041	-0.234						
(U) FY 2003 President's Budget Submit:	26.653	26.615	16.652					
 CHANGE SUMMARY EXPLANATION:								
<p>(U) Funding: The FY 01 decrease of \$1.041 million reflects a \$.300 million decrease for reprioritization of requirements within the Navy and a \$.741 million decrease for a Small Business Innovative Research assessment. The FY 02 decrease of \$.234 million reflects a \$.237 million decrease for an undistributed congressional reduction and a \$.003 million increase for use on the Unitary Broach Warhead Development.</p> <p>(U) Schedule: Unitary: DT&E has changed from 1Q/01-1Q/03 to 1Q/01-3Q/03 and 1st Free Flight has changed from 4Q/01 to 1Q/02 due to technical issues with Seeker to GEU interface.</p> <p>(U) Technical: Not Applicable</p>								
 (U) C. OTHER PROGRAM FUNDING SUMMARY:								
<u>Line Item No. & Name</u>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Complete
USN WP,N; BLI: 223000 JSOW								
\$s	161.307	0.000	139.537	188.906	167.205	166.676	149.829	2697.491
Qtys	29	0	363	555	522	502	424	10,042
USAF WP,F; BLI: 27324F* JSOW								
\$s	52.893	29.376	55.843	127.892	242.739	253.050	245.924	995.384
Qtys	0	29	116	319	631	645	597	3,572

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<p>(U) D. ACQUISITION STRATEGY: The contracting strategy for JSOW is planned to be sole source for the life of the program. Cost type contracts were used for the SD&D program effort. Fixed price type contracts will be used for production.</p> <p>(U) E. SCHEDULE PROFILE:</p> <table style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 10%; text-align: center;"><u>FY 2003</u></th> <th style="width: 10%; text-align: center;"><u>TO COMPLETE</u></th> </tr> </thead> <tbody> <tr> <td colspan="5" style="padding-top: 10px;">(U) Program Milestones</td> </tr> <tr> <td style="padding-left: 20px;">Baseline</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">BLU-108</td> <td></td> <td></td> <td style="text-align: center;">4Q/03 MS-III</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Unitary</td> <td></td> <td></td> <td></td> <td style="text-align: center;">1Q/04 MS-III</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">(U) Engineering Milestones</td> </tr> <tr> <td style="padding-left: 20px;">Baseline</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">BLU-108</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Unitary</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">(U) T&E Milestones</td> </tr> <tr> <td style="padding-left: 20px;">Baseline</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">BLU-108</td> <td></td> <td></td> <td style="text-align: center;">1Q/03-3Q/03 OPEVAL (MOT&E)</td> <td></td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">(U) Unitary</td> </tr> <tr> <td></td> <td style="text-align: center;">1Q/01-3Q/03 DT&E</td> <td style="text-align: center;">1Q/02 1ST Free Flight</td> <td style="text-align: center;">3Q/03-4Q/03 OPEVAL</td> <td></td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">(U) Contract Milestones</td> </tr> <tr> <td style="padding-left: 20px;">Baseline</td> <td></td> <td></td> <td style="text-align: center;">2Q/03 FRP</td> <td style="text-align: center;">2Q/04 FRP</td> </tr> <tr> <td style="padding-left: 20px;">BLU-108</td> <td></td> <td style="text-align: center;">3Q/02 LRIP</td> <td style="text-align: center;">2Q/03 LRIP</td> <td style="text-align: center;">2Q/04 FRP</td> </tr> <tr> <td style="padding-left: 20px;">Unitary</td> <td></td> <td></td> <td style="text-align: center;">1Q/03 LRIP</td> <td style="text-align: center;">1Q/04 FRP</td> </tr> </tbody> </table>						<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>TO COMPLETE</u>	(U) Program Milestones					Baseline					BLU-108			4Q/03 MS-III		Unitary				1Q/04 MS-III	(U) Engineering Milestones					Baseline					BLU-108					Unitary					(U) T&E Milestones					Baseline					BLU-108			1Q/03-3Q/03 OPEVAL (MOT&E)		(U) Unitary						1Q/01-3Q/03 DT&E	1Q/02 1 ST Free Flight	3Q/03-4Q/03 OPEVAL		(U) Contract Milestones					Baseline			2Q/03 FRP	2Q/04 FRP	BLU-108		3Q/02 LRIP	2Q/03 LRIP	2Q/04 FRP	Unitary			1Q/03 LRIP	1Q/04 FRP
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Exhibit R-3 Cost Analysis (page 1)							DATE: February 2002					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604727N Joint Standoff Weapon System			A2068 Joint Standoff Weapon (JSOW)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
DEM/VAL contract	C/CPIF	Raytheon Tucson, AZ	22.101								22.101	22.101
Pre-MS-I contract	C/CPIF	Raytheon Tucson, AZ	3.275								3.275	3.275
Pre-E&MD contract	C/CPIF	Raytheon Tucson, AZ	3.143								3.143	3.143
Baseline E&MD contract	C/CPIF	Raytheon Tucson, AZ	243.776								243.776	243.776
Unitary pre-E&MD Contract	SS/CPIF	Raytheon Tucson, AZ	6.316								6.316	6.316
Unitary E&MD Contract	SS/CPIF/AF	Raytheon Tucson, AZ	184.738	17.235	10/00	18.093	10/01	7.552	10/02		227.618	227.618
Unitary E&MD Contract Award Fees (Note 2)	Fee	Raytheon Tucson, AZ	7.118								7.118	7.118
BLU-108 Pre-E&MD Contract	SS/CPIF	Raytheon Tucson, AZ	0.474								0.474	0.474
BLU-108 E&MD Contract	SS/CPIF	Raytheon Tucson, AZ	10.671								10.671	10.671
BLU-108 Smart Rack	SS/CPIF	MTechnology Horsham, PA	4.585								4.585	4.585
F/A-18 JSOW Integration	SS/CPIF	McDonnell Douglas St. Louis, MO	16.870								16.870	16.870
Software Integration IDIQ/TAMPS	SS/CPIF	Raytheon Tucson, AZ	2.191								2.191	2.191
BLU-108 SFW E&MD	SS/CPIF	Textron	2.923								2.923	2.923
SFW E7MD Award Fee (Note 2)	Award Fee	Textron	0.080								0.080	0.080
Systems Engineering Technical Support	WX	NAWCWD China Lake, CA	103.400	1.606	10/00	0.521	10/01	0.600	10/02		106.127	
F/A-18 Integration	WX	NAWCWD China Lake, CA	15.058								15.058	
Engineering and Technical Services	Various	Various	16.900	0.300	10/00	0.150	10/01	0.100	10/02		17.450	
Miscellaneous Contracts (<\$1M)	Various	Various	6.612	0.280	10/00	0.100	10/01	0.100	10/02		7.092	
Unitary BROACH Warhead	SS/FPFF	BAE Chorley, England	0.000	5.100	05/01	4.900	10/01	2.900	10/02		12.900	12.900
JMPS Migration	SS/FPFF	Raytheon Tucson, AZ	0.000					0.200	10/02	2.134	2.334	2.334
Subtotal Product Development			650.231	24.521		23.764		11.452		2.134	712.102	
Remarks: Note 1: Historical Unitary SD&D Award Fee information (percent awarded): Fee#1: 98.3%, Fee#2: 90.1%, Fee#3: 98.0%, Fee #4: 100%, Note 2: No historical information available; this is a one-time award fee.												

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Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 6 of 7)

