

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2002
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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA4				R-1 ITEM NOMENCLATURE PE 0603553N Surface ASW/S1704 ASW Adv Dev					
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total PE Cost	7.203	3.691	3.219	3.302	3.320	3.368	3.429	Continuous	Continuous
ASW Advanced Development/V1704	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuous	Continuous
ASW Advanced Development/S1704	7.203	3.691	3.219	3.302	3.320	3.368	3.429	Continuous	Continuous
Quantity of RDT&E Articles									

A. Mission Description and Budget Item Justification: The ASW Advanced Development project provides advanced development demonstration and validation of technology for potential surface sonar and combat system applications. Efforts focus on resolution of technical issues associated with providing capability against the Year 2005 and beyond threat with emphasis on shallow water/littoral area USW and on demonstration and validation of Undersea Warfare (USW) concepts and technology. Key technology areas include active sonar transmissions, advanced signal and data processing, active sonar classification, towed and hull arrays and transducer technology, multi-static sonar, and multi-sensor data fusion including multi-platform data fusion and netcentric undersea warfare concepts. This Program Element, 0603553N, has been designated to support Multi-Static Active ASW (MAASW) efforts associated with the Distant Thunder program and other emerging multi-static technologies. The MAASW project conducts advanced development and testing of active multistatic acoustic concepts. The concept development is directed at providing surface ships combat groups with the capability of detection, classification, and localization of quiet threat submarines in difficult acoustic environments associated with Littoral waters. The project concentrates on the development of acoustic processor algorithms, alternative cost-effective active sources and information sharing technologies to develop a coordinated multi-static acoustic picture employing distributed sensors and active sources.

Program Plans and Accomplishments:

1. (U) FY 2001 Accomplishments:

(\$2.963) Multistatic Active ASW: Improved acoustic processing and communication schemes through coordination with Office of Naval Research and use of test data. Participated in SHAREM 136 to collect multi-static processors/communication systems data and environmental acoustic data and analyze/evaluate system performance and alternative acoustic sources in Littoral ASW environments. Began Advanced Processing Build (APB) process in preparation for integration of coherent waveform processing algorithms. Completed development of Impulsive Source Concept of Operations and transitioned documentation to the Surface Warfare Development Group (SWDG). Installed Advanced Development Model (ADM) R&D Proof-of-concept installation on USS Cushing (DD985) COMDESRON Fifteen test ships.

(\$4.240) Advanced Undersea Warfare Concept (AUSWC): Field and demonstrated a network-centric Undersea Warfare (USW) theater combat system to support air, surface, and sub-surface platforms of the Carl Vinson Battlegroup. Supported second installation (Build 2.0) plan for Carl Vinson Battlegroup for selected battlegroup platforms.

2. FY 2002 Plan:

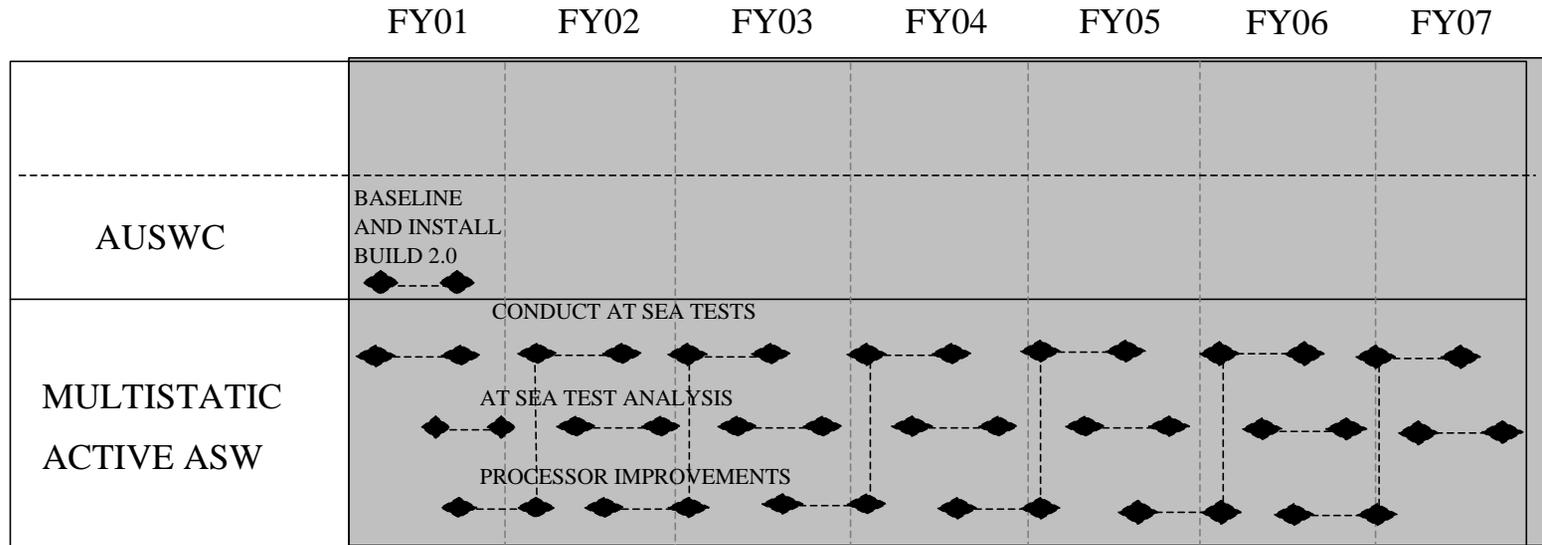
(\$3.691) Multistatic Active ASW: Upgrade air deployed advanced development multistatic processing system through coordination with PMA-264. Integrate Distant Thunder multi-static active impulsive signal processing algorithms through the Advanced Processing Build (APB) process into the APB-02 multistatic processing string. APB-02 will provide impulsive and coherent multistatic active acoustic processing capability. Improve support and interface to shipboard Combat Information Center (CIC) watch standers. Address coherent waveform capabilities in concept of operations and tactical documentation. Finalize documentation and initiate preparation for product(s) transition to AN/SQQ-89(V)15.

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<p>3. FY 2003 Plan: (\$3.219) Multistatic Active ASW: Complete remaining integration of Distant Thunder algorithms and interfaces to the Advanced Processing Build (APB) Process (APB-02). Demonstrate and evaluate, through SHAREM and FBE exercise participation, APB-02 multistatic active capabilities and existing multistatic active ASW tactical guidance. Complete impulsive Distant Thunder algorithm documentation in preparation for transition to the AN/SQQ-89 A(V)15. Determine, through coordination with OPNAV N763, OMDEVENTHFLT, and PMS-400, desirability to maintain and support COMDESRON Fifteen test ship R&D proof-of-concept installations beyond FY03.</p>																					
<p>B. Program Change Summary:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 15%; text-align: center;">FY 2001</th> <th style="width: 15%; text-align: center;">FY 2002</th> <th style="width: 10%; text-align: center;">FY 2003</th> </tr> </thead> <tbody> <tr> <td>(U) FY 2002 President's Budget:</td> <td style="text-align: center;">6.690</td> <td style="text-align: center;">3.724</td> <td></td> </tr> <tr> <td>(U) Appropriated Value:</td> <td style="text-align: center;">6.752</td> <td style="text-align: center;">3.724</td> <td></td> </tr> <tr> <td>(U) Adjustments to FY 2001/2002 Appropriated Value/FY 2002 President's Budget:</td> <td style="text-align: center;">0.451</td> <td style="text-align: center;">-0.033</td> <td></td> </tr> <tr> <td>(U) FY 2003 Pres Budget Submit:</td> <td style="text-align: center;">7.203</td> <td style="text-align: center;">3.691</td> <td style="text-align: center;">3.219</td> </tr> </tbody> </table> <p>(U) Change Summary Explanation:</p> <p>(U) FY2001: Increase of (+.617) is a result of BTR adjustments, (-.087) for SBIR, and (-.079) for minor adjustments.</p> <p>(U) FY 2002 net decrease of (-0.033) for Section 8123 Management Reform Costs.</p> <p>Schedule: N/A</p> <p>Technical: N/A</p> <p>C. Other Program Funding Summary: N/A</p> <p>Related RDT&E:</p> <p>PE 0205620N (Surface ASW Combat Systems Integration) PE 0603504N (Advanced Submarine Combat Systems Development) PE 0603513N (DD-21 Associated System Development) PE 0603561N (Advanced Submarine System Development) PE 0603747N (Undersea Warfare Advanced Technology)</p> <p>D. Acquisition Strategy: Plan to continue competitively awarded contract(s).</p> <p>E. Schedule Profile: See attached Schedule.</p>			FY 2001	FY 2002	FY 2003	(U) FY 2002 President's Budget:	6.690	3.724		(U) Appropriated Value:	6.752	3.724		(U) Adjustments to FY 2001/2002 Appropriated Value/FY 2002 President's Budget:	0.451	-0.033		(U) FY 2003 Pres Budget Submit:	7.203	3.691	3.219
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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2002			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N			PROJECT NAME AND NUMBER ASW Advanced Development, S1704						
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	7.203	3.691	3.219	3.302	3.320	3.368	3.429		
RDT&E Articles Qty									

SURFACE ASW ADVANCED DEVELOPMENT



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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2002				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NAME AND NUMBER			PROJECT NAME AND NUMBER						
RDT&E, N			Surface ASW/ PE 0603553N			ASW Advanced Development/S1704						
Cost Categories (Tailor to WBS, or System/Item Requirements)	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
Multistatic Sonar Development	WR	NUWC/Npt	1.098	1.160	04/01	1.100	12/01	0.890	12/02	Continuous	Continuous	
Multistatic Sonar Development	WR	BATH MIN	0.010	0.011	11/00							
Multistatic Sonar Development	WR	PASCAGOULA MS	0.010	0.007	01/01							
Multistatic Sonar Development	WR	NAWC/KEY WEST	0.010									
Multistatic Sonar Development	WR	NAWC/Pax River	0.363	0.250	02/01	0.600	12/01	0.300	12/02	Continuous	Continuous	
Multistatic Sonar Development	CPFF	BBN	1.037	0.930	10/00	0.965	03/02	1.089	12/02	Continuous	Continuous	
Multistatic Sonar Development	CPFF	APL/JHU	0.110	0.140	02/01	0.100	01/02	0.100	12/02	Continuous	Continuous	
Multistatic Sonar Development	RCP/WR	NRL										
Multistatic Sonar Development	WR	NUWC/Keyport										
Multistatic Sonar Development	WR	NSWC/DD										
Multistatic Sonar Development	RCP	FLT. INDUR. SUP. CTR	0.010									
Multistatic Sonar Development	RCP	ONR	0.127	0.295	03/01	0.050				Continuous	Continuous	
Program Management Support	Various	Various				0.326		0.290				
Subtotal Product Development			2.775	2.793		3.141		2.669		0.000	11.378	
Remarks:												
Development Support Equipment											0.000	
Software Development											0.000	
Training Development											0.000	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
GFE											0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)								DATE: February 2002				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NAME AND NUMBER			PROJECT NAME AND NUMBER						
RDT&E, N			Surface ASW/PE 0603553N			ASW Advanced Development/S1704						
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost (K\$)	FY 01 Award Date	FY 02 Cost (K\$)	FY 02 Award Date	FY 03 Cost (K\$)	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NUWC/Npt	1.004	0.872	12/00	0.400	11/01	0.411	11/02	Continuous	Continuous	
Developmental Test & Evaluation	WR	NAWC/Pax River	0.165	0.751	12/00					Continuous	Continuous	
Developmental Test & Evaluation	CPFF	BBN	0.000			0.100	11/01	0.100	11/02	Continuous	Continuous	
Developmental Test & Evaluation	WR	SUPSHIP BATH MIN.	0.033							Continuous	Continuous	
Developmental Test & Evaluation	WR	NUWC/Keyport	0.443	0.490	12/00					Continuous	Continuous	
Developmental Test & Evaluation	WR	NSWC/Carderock, MD	0.308	0.387	12/00					Continuous	Continuous	
Developmental Test & Evaluation	WR	NSWC/Dahlgren, VA	0.040		12/00					Continuous	Continuous	
Developmental Test & Evaluation	CPFF	APL/JHU, MD	0.626	0.910	03/01					Continuous	Continuous	
Developmental Test & Evaluation	CPFF	Progeny, Inc.	0.500	0.717	03/01					Continuous	Continuous	
Developmental Test & Evaluation	CPFF	IPD	0.055									
Developmental Test & Evaluation	MIPR	U.S. ARMY/MITRE	0.000									
Developmental Test & Evaluation	WR	SPAWAR Systems Center	0.435	0.123	12/00					Continuous	Continuous	
Subtotal T&E			3.609	4.250		0.500		0.511		Continuous	Continuous	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	CPFF	Stanley Assoc.	0.319	0.140	01/01	0.050	01/02	0.039	01/03	Continuous	Continuous	
Travel			0.020	0.020						Continuous	Continuous	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.339	0.160		0.050		0.039		Continuous	Continuous	
Remarks:												
Total Cost			6.723	7.203		3.691		3.219		Continuous	Continuous	
Remarks:												

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Exhibit R-3, Project Cost Analysis
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