

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2000			
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY					PE 0603553N Surface ASW/V1704 ASW Adv Dev					
COST (\$ in Millions)		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total PE Cost		4.839	6.948	6.752	2.986	3.031	3.074	3.114	Continuous	Continuous
ASW Advanced Development/V1704		4.839	6.948	6.752	2.986	3.031	3.074	3.114	Continuous	Continuous
Project B Title/Cost Code										0.000
Project C Title/Cost Code										0.000
Quantity of RDT&E Articles										
<p>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 dem/val 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. The development of a mid-frequency Towed Active Receive Subsystem (TARS) prototype, which functions as a deep receiver for the AN/SQS-53C transmitter and provides significantly enhanced submarine detection performance against deep submarine targets, will complete in FY1999 and transition to the AN/SQQ-89 program. This Program Element, 0603553N, has been designated to support Multi-Static Sonar efforts associated with the Distant Thunder program in order to transition from a DARPA program into the Navy Multistatic Active ASW Program. This 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 and information sharing technologies to develop a coordinated multi-static acoustic picture employing distributed sensors and active sources. The Program Element, 0603553N, has also been designated to provide Advanced Undersea Warfare Concepts (AUSWC) associated with the development of a Netcentric ASW program. The Netcentric ASW program will provide commonality across platforms, with common decision aids, models and a common database.</p> <p>Note: In accordance with 15 USC 638, \$.15M in FY 2000 is reserved for the Small Business Innovative Research (SBIR) assessment.</p> <p>Program Plans and Accomplishments:</p> <p>1. (U) FY 1999 Accomplishments:</p> <p>(\$1.044) TARS: Completed TARS test and evaluation program and completed the transition of this technology to the AN/SQQ-89 Multi-Functional Towed Array (MFTA).</p> <p>(\$2.395) Multistatic Active ASW: Participated in SHAREM 127 and 130 and LWAD 99-2 sea tests for Implusive Multistatic Active Processing data collection and demonstration.</p> <p>(\$1.400) Advanced Undersea Warfare Concept (AUSWC): Provide Systems Engineering and Integration for development of the AUSWC Builds 1.0 and 2.0. Perform Battle Group platform interface investigation, installation planning and scheduling, platform installation and integration for AUSWC first build.</p> <p>2. (U) FY 2000 Plan:</p> <p>(\$2.949) Multistatic Active ASW: Improve acoustic processors and communication schemes. Participate in sea tests (SHAREMS/LWAD) to collect multi-static processors/communication systems data and environmental acoustic data and analyze system performance. Initiate development of Concept of Operations.</p> <p>(\$3.999) Advanced Undersea Warfare Concept (AUSWC): Field and demonstrate a network-centric Undersea Warfare (USW) theater combat system to support air, surface, and sub-surface platforms. Support first installation (Build 1.0) plan for Kittv Hawk Battlegroup for selected battlegroup platforms.</p>										

R-1 SHOPPING LIST - Item No. 45 -1 of 45-5

Exhibit R-2, RDT&E Budget Item Justification
(Exhibit R-2, page 1 of 5)

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification		DATE: February 2000
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY	R-1 ITEM NOMENCLATURE PE 0603553N Surface ASW/V1704 ASW Adv Dev	
<p>3. FY 2001 Plan: (\$2.971) Multistatic Active ASW: Continue improvement of acoustic multi-static algorithms based on results of FY2000 sea test results. Participate in sea tests (SHAREMS/LWAD) to evaluate improved algorithms/communication schemes in Littoral ASW environments. Complete Concept of Operations. (\$3.781) Advanced Undersea Warfare Concept (AUSWC): Continue to demonstrate a network-centric Undersea Warfare (USW) theater combat system to support air, surface, and sub-surface platforms. Support second installation (Build 2.0) plan for Vinson Battlegroup for selected battlegroup platforms.</p>		
B. Program Change Summary:		
	FY 1999	FY 2000
FY 2000 President's Budget:	11.871	2.949
Appropriated Value:	11.871	2.949
Adjustment to FY 1999/2000 Appropriated Value/	-7.032	3.999
FY 2000 President's Budget:		3.789
FY 2001 President's Budget Submit:	4.839	6.948
		6.752
 (U) Change Summary Explanation:		
FY99 reduction is due to Comparability Adjustment (-\$10.794), Undistributed Reductions (-\$0.129), SBIR/STTR Transfer (-\$0.031), Inflation Savings (-\$0.005), Multistatic Active ASW increase (+\$2.400), AUSWC increase (+1.400). Minor Pricing increase (+\$0.127) (U) FY 2000 increase of (+\$3.999), Advanced Undersea Warfare Concept (AUSWC). (U) FY 2001 increases of (+\$3.810) Advanced Undersea Warfare Concept, Strategic Sourcing Redistribution of (+\$0.037), NWCF rates adjustments of (+\$0.035). FY 2001 reductions for Minor Pricing Adjustments (-\$0.093).		
Schedule: N/A		
Technical: N/A		
C. Other Program Funding Summary: N/A		
Related RDT&E: PE 0205620N (Surface ASW Combat Systems Integration) PE 0602121N (Surface Ship & Submarine HM&E Technology) 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)		
D. Acquisition Strategy: Plan to continue competitively awarded contract(s).		
E. Schedule Profile: See attached Schedule.		

R-1 SHOPPING LIST - Item No. 45-2 of 45-5

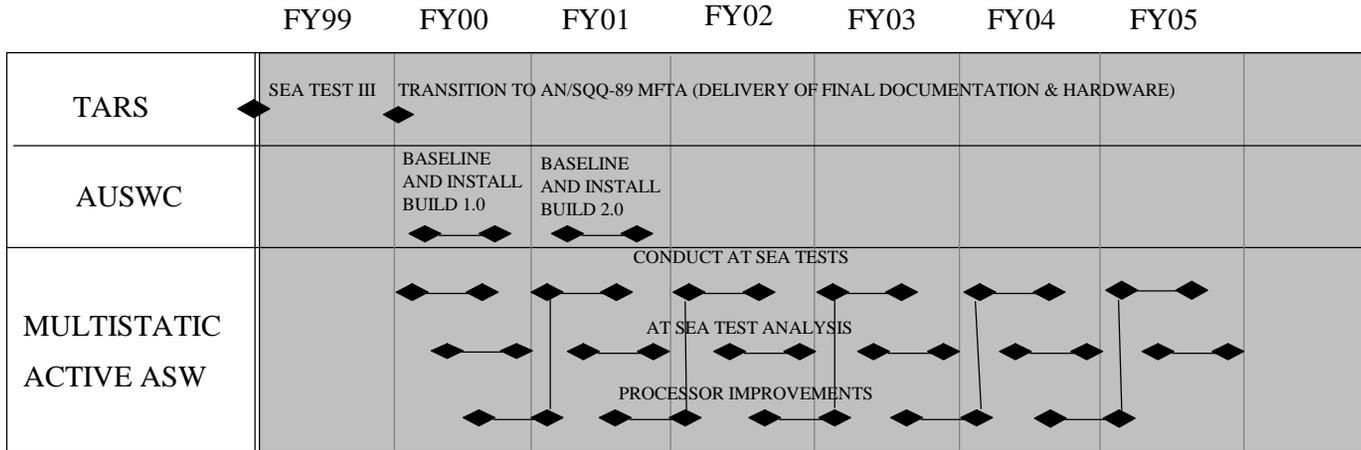
Exhibit R-2, RDT&E Budget Item Justification
(Exhibit R-2, page 2 of 5)

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2000			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N	PROGRAM ELEMENT NAME AND NUMBER Surface ASW, PE 0603553N			PROJECT NAME AND NUMBER ASW Advanced Development, V1704						
COST (\$ in Millions)		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Project Cost										
RDT&E Articles Qty										

TARS / AUSWC/MULTISTATIC ACTIVE ASW



R-1 SHOPPING LIST - Item No. 45-3 of 45-5

Exhibit R-2a, RDT&E Project Justification
(Exhibit R-2a, page 3 of 5)

UNCLASSIFIED

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NAME AND NUMBER				PROJECT NAME AND NUMBER					
RDT&E, N			Surface ASW/ PE 0603553N				ASW Advanced Development/V1704					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost	FY 99 Award Date	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
TARS Product Development	WR	NUWC	9.597	0.800	11/98	0.000	-	0.000			10.397	
Multistatic Sonar Development	WR	NAWC/Pax River		0.100	03/99	0.200	12/99	0.225	12/00	Continuous	Continuous	
Multistatic Sonar Development	CPFF	BBN				0.200	01/00	0.235	01/99	Continuous	Continuous	
Multistatic Sonar Development	CPFF	APL/JHU		0.116	03/99	0.234	01/00	0.328	01/99	Continuous	Continuous	
Multistatic Sonar Development	RCP/WR	NRL		0.212	03/99					Continuous	Continuous	
Multistatic Sonar Development	RCP	ONR		0.868	04/99					Continuous	Continuous	
AUSWC	WR	NUWC/Keyport		1.400	07/99					Continuous	Continuous	
Systems Engineering	WR	NSWC/DD		0.108	06/99					Continuous	Continuous	
Subtotal Product Development			9.597	3.604		0.634		0.788		0.000	14.623	
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:												

R-1 SHOPPING LIST - Item No. 45-4 of 45-5

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 4 of 5)

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N			PROGRAM ELEMENT NAME AND NUMBER Surface ASW/PE 0603553N				PROJECT NAME AND NUMBER ASW Advanced Development/V1704					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 99 Cost (K\$)	FY 99 Award Date	FY 00 Cost (K\$)	FY 00 Award Date	FY 01 Cost (K\$)	FY 01 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NUWC/Npt		0.519	03/99	1.300	10/99	1.241	10/00	Continuous	Continuous	
Developmental Test & Evaluation	WR	NAWC/Pax River		0.505	03/99	0.600	10/99	0.500	10/00	Continuous	Continuous	
Developmental Test & Evaluation	CPFF	BBN				0.750	12/99	0.637	12/00	Continuous	Continuous	
Developmental Test & Evaluation	CPFF	Oasis				0.040	12/99	0.050	12/00	Continuous	Continuous	
Developmental Test & Evaluation	WR	NUWC/Keyport				1.000	10/99	1.000	10/00	Continuous	Continuous	
Developmental Test & Evaluation	WR	NSWC/Carderock, MD				0.250	10/99	0.211	10/00	Continuous	Continuous	
Developmental Test & Evaluation	WR	NSWC/Dahlgren, VA				0.249	10/99	0.200	10/00	Continuous	Continuous	
Developmental Test & Evaluation	SS/CPFF	APL/JHU, MD				2.000	12/99	2.000	12/99	Continuous	Continuous	
Subtotal T&E			0.000	1.024		6.189		5.839		Continuous	Continuous	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	CPFF	Stanley Assoc.		0.186	11/98	0.100	12/99	0.100	12/00	Continuous	Continuous	
Travel				0.025		0.025		0.025		Continuous	Continuous	
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			0.000	0.211		0.125		0.125		Continuous	Continuous	
Remarks:												
Total Cost				4.839		6.948		6.752		Continuous	Continuous	
Remarks:												

R-1 SHOPPING LIST - Item No. 45-5 of 45-5

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 5 of 5)

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