

CLASSIFICATION:

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EXHIBIT R-2, RDT&E Budget Item Justification				DATE: June 2001						
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-5				R-1 ITEM NOMENCLATURE Submarine Tactical Warfare Systems / 0604562N						
COST (\$ in Millions)	FY 2000	FY 2001	FY 2002							
Total PE Cost	12.556	26.249	29.246							
SSN CCS (IMP) (ENG)	12.556	26.249	29.246							
Quantity of RDT&E Articles										
<p>A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program develops software upgrades to integrate improved weapons capabilities within submarine Combat Control System (CCS) MK1, MK2, and AN/BSY-1 (Combat Control) and, as a part of Obsolete Equipment Replacement (OER), the program develops improvements to hardware which has become increasingly difficult and not economical to maintain. The thrust of the CCS Improvement program is the fleet introduction of CCS MK2 Program D0 and the development of CCS MK2 Program D0 Blocks 1 and 2. CCS MK2 converged multiple submarine combat system developments into a single effort to minimize submarine life cycle costs, across SSN 688, SSN 688I and SSBN 726 Classes. CCS MK2 Program D0 provides a modular software architecture, introduces Tomahawk Block 3 and Harpoon Block 1C capabilities, introduces Advanced Capability (ADCAP) on TRIDENT, and replaces additional obsolete equipment. CCS MK2 Program D0 Block 1 integrates CCS MK2 into AN/BSY-1 systems, replaces additional obsolete equipment, incorporates a direct interface to the Global Positioning System, incorporates Global Command Control System-Maritime (GCCS-M) (formerly known as Joint Maritime Command Information System (JMCIS)) into CCS MK2, and implements Advanced Tomahawk Weapon Control System (ATWCS), ADCAP torpedo improvements and several other miscellaneous enhancements. CCS MK2 Program D0 Block 2 incorporates into submarine CCS anticipated upgrades to ADCAP, and Tomahawk and implements additional OER. AN/BSG-1 (formerly known as Tomahawk Land Attack Missile – Nuclear (TLAM-N) Portable Launching System (PLS)) provides SSN submarines with a stand-alone TLAM-N missile launching capability.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS: 1. (U) FY 2000 ACCOMPLISHMENTS: (U) (\$7.501) Conducted Operational Test (OT) for CCS MK2 Program D0 Block 1C. (U) (\$0.263) Commenced development of ISLMM launcher capability. (U) (\$2.156) Developed engineering change to CCS MK 2 Program D0 Block 1C to incorporate ADCAP torpedo CBASS and Tactical Tomahawk capabilities, and upgrade for commonality with VIRGINIA Class. (U) (\$2.636) Continued development of AN/BSG-1.</p>										

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RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-5		Submarine Tactical Warfare System / 0604562N	
<p>2. (U) FY 2001 PLAN:</p> <ul style="list-style-type: none">(U) (\$10.245) Continue to develop engineering change to CCS MK2 Program D0 Block 1C to incorporate ADCAP torpedo CBASS and Tactical Tomahawk capabilities and upgrade for commonality with VIRGINIA Class.(U) (\$3.841) Complete post-OPEVAL development effort to CCS MK2 Block 1C.(U) (\$5.800) Continue development of AN/BSG-1 and conduct developmental and operational testing.(U) (\$6.000) Integration of Advanced Tactical Software, Commercial Off-the-Shelf Technology and Government Off-the-Shelf Technology Products into Backfit Submarine Combat Control Programs.(U) (\$0.363M) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638. <p>3. (U) FY 2002 PLAN:</p> <ul style="list-style-type: none">(U) (\$19.269) Continue to develop engineering change to CCS MK2 Program D0 Block 1C to incorporate ADCAP torpedo CBASS and Tactical Tomahawk capabilities and upgrade for commonality with VIRGINIA Class.(U) (\$9.101) Develop changes to combat control weapons simulation and equipment to enhance TOMAHAWK system reliability.(U) (\$0.876) Complete development of AN/BSG-1 and mission distribution system upgrades.			

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APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-5	Submarine Tactical Warfare System / 0604562N		
B. (U) PROGRAM CHANGE SUMMARY:			
	FY 2000	FY 2001	FY 2002
FY 2001 President's Budget:	13.353	20.492	29.210
Appropriated Value:	13.353	20,492	
Adjustment to FY2000/2001 Appropriated Value/			
FY 2001 President's Budget:	-0.797	5.757	0.036
FY 2002 PRES Budget Submit:	12.556	26.249	29.246
(U) CHANGE SUMMARY EXPLANATION:			
(U) Funding: FY00 decrease of (\$-0.797M) is attributed to decreases of (-\$0.033M) for FY0 Actuals,, (\$-0.204M) for Small Business Innovative Research (SBIR) , (\$-0.441M) for minor program adjustments., (-\$0,052M) for Section 8055: Proportionate Reduction, (-\$0.074M) for Across thr Board Reduction and an increase of (\$0.007M) to Restore Issue 62288 Outsourcing. FY 01 increase of (\$5,757M) is attributed to a Congressional add (\$6.0M) for Integration of Advance Tactical software, a decrease of (-\$0.185M) for Section 8086: .7% Pto-rata Reduction and (-\$0.058M) for Government Wide Rescission. FY02 increase of (\$0.036M) is attributed to a n increase of (\$0.052M) for vaious minor program adjustments and a decrease for (-\$0.016M) for Issue 62288 Outsourcing			
(U) Schedule: Not applicable			
(U) Technical: Not applicable.			
	FY 2000	FY 2001	FY 2002
OPN/BA-4 54200	35,353	19,416	40,716

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<p>(U) Related RDT&E:</p> <ul style="list-style-type: none">(U) PE 0204229N (Tomahawk & Tomahawk Missile Planning Center)(U) PE 0205632N (MK 48 ADCAP)(U) PE 0603504N (Advanced Submarine Combat Systems Dev.)(U) PE 0604503N (Submarine System Equipment Dev.)(U) PE 0604707N (Submarine Electronic Warfare Architecture/Eng. Support) <p>D. (U) ACQUISITION STRATEGY:</p> <p>CCS MK2 Block 1C:</p> <ul style="list-style-type: none">- CCS MK2 Block 1C utilizes an open architecture in support of new and upgraded Government and Commercial Off-The-Shelf products and insertion of new weapons capabilities.- Acquisition Decision Memorandum approved 21 June 1996 granted approval to enter Engineering Manufacturing Development.- Sole Source Cost Plus Incentive Fee Contract awarded to Raytheon.- Program Review with Milestone Decision Authority conducted 20 March 1998 demonstrated hardware design maturity. Approval was received to exercise CCS MK2 Block 1C Hardware Production Option for FY98/99/00.			

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R-3 Cost Analysis (page 1)										DATE: June 2001	
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER					
RDT&E, N/BA-5			Submarine Tactical Warfare Sys/0604562N			SSN Combat Control System Improv (ENG) / F0236					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date		
Hardware Dev Block 1C/CBASS ECP	CPIF	Raytheon Portsmouth, RI	32.000	4.419		8.180		11.000			
Ancillary Hardware Dev (AN/BSG-1)	PD	PEO-CMU Patuxent River,MD	6.195	1.308		0.500		1.081			
AN/BSG-1	CPIF	Raytheon Portsmouth, RI	12.843	0.000		1.800		1.876			
ISLMM	SBIR	SEACORP	0.000	0.102	04/00	0.000		0.000			
Government Engineering	WR	NUWC Newport, RI	31.478	5.358	10/99	7.608	10/00	11.265			
TOMAHAWK Reliability	SBIR	Progeny	0.000	0.074		0.486		1.561			
CSS MK2 Block 1C ECP	FFRDC	MITRE				0.375		0.400			
COTS Hardware & Software	TBD	DDL Omni				6.000		1.561			
Subtotal Product Development			82.516	11.261		24.949		28.744			
Remarks:											
	Contract	Award/Oblig									
	Block 1C	Jun 96									
	AN/BSG-1	Jun 97									
	ISLMM	Apr 00									
Development Support Equipment											
Software Development	Various	Various	24.800	0.000		0.000		0.000			
Training Development											
Integrated Logistics Support											
Configuration Management											
Technical Data											
GFE											
Subtotal Support			24.800	0.000		0.000		0.000			
Remarks:											

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Exhibit R-3 Cost Analysis (page 2)										DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NAME AND NUMBER					
RDT&E, N/BA-5			Submarine Tactical Warfare Sys/0604562N				SSN Combat Control System Improv (ENG) / F0236					
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 00 Cost	FY 00 Award Date	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			
Developmental Test & Evaluation	Various	Various	4.700	0.000		0.500		0.000				
Operational Test & Evaluation	Various	Various	5.069	0.000		0.500		0.000				
Test & Evaluation	Various	Various	0.000	1.295		0.000		0.292				
GFE												
Subtotal T&E			9.769	1.295		1.000		0.292				
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support	CPFF	EG&G Arlington, VA	8.481	0.000		0.200		0.210				
Travel	PD	NAVSEA Arlington, VA	0.150	0.000		0.100		0.000				
Labor (Research Personnel)												
Overhead												
Subtotal Management			8.631	0.000		0.300		0.210				
Remarks:	Contract EG&G	Award/Oblig Sep 94										
Total Cost			125.716	12.556		26.249		29.246				
Remarks:												

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