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Exhibit R-2, RDT&E Budget Item Justification	Date: February 1999
APPROPRIATION/BUDGET ACTIVITY: RDT&E,N/5	R-1 ITEM NOMENCLATURE Submarine Combat System / 0604524N

COST (\$ in Millions)	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	Cost to Complete	Total Cost
Total P.E. Cost	17.0	11.4	6.5	3.5	0	0	0	0	0	1807.1
F1941/AN/BSY-2	17.0	11.4	6.5	3.5	0	0	0	0	0	1807.1
Quantity of RDT&E Articles & cost	77/.2		126/2.1	42/1.0						

A. (U) Mission Description and Budget Item Justification: This program provides system engineering support and develops software fixes for deficiencies identified during shipyard and at sea testing of the AN/BSY-2 Submarine Combat System (SCS). It incorporates the software fixes into a scheduled Block 3 upgrade to the U.S.S. Seawolf prior to the conduct of Technical Evaluation (TECHEVAL) and Operational Evaluation (OPEVAL). It also provides for TECHEVAL and OPEVAL planning, asset and equipment procurement and provides direct government engineering support for the conduct of TECHEVAL and OPEVAL. In order to resolve obsolescence and reliability issues, improve acoustic superiority, and maximize Submarine Combat System commonality, it provides funds to move the AN/BSY-2 System into the Integrated Development Plan (IDP) by implementing Acoustics Rapid Cots Insertion (ARCI) Phase II on the Seawolf Class as a Block 4 Upgrade. Block 4 also replaces aging Combat System Display Consoles (CSDC's) and the Enhanced Modular Signal Processors (EMSP's) with COTS based equipment. Funds are also provided to complete AN/BQG-5A development.

(U) Program Accomplishments and Plans:

1. (U) FY 1998 Accomplishments.
 - (U) (\$13.8) Completed Block 2/2A, continued Block 3 development and initiated the EMSP replacement effort under the Submarine IDP for a Block 4 delivery.
 - (U) (\$ 1.7) Continued to resolve system discrepancies identified during shipyard testing, at sea testing and during conduct of early TECHEVAL events.
 - (U) (\$ 1.5) Completed development of AN/BQG-5A Standalone Wide Aperture Array.
2. (U) FY 1999 Plan.
 - (U) (\$10.0) Complete development, integration and test of Block 3 and continue Block 4 development.
 - (U) (\$ 1.2) Continue test planning efforts and asset and equipment procurements to support TECHEVAL/OPEVAL.
 - (U) (\$.2) Portion of extramural program is reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.
3. (U) FY 2000 Plan.
 - (U) (\$4.7) Complete conduct of TECHEVAL and OPEVAL (excluding Arctic Operations).
 - (U) (\$1.8) Initiate resolution of deficiencies found during TECHEVAL/OPEVAL and continue Block 4 development, test and integration.

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B. (U) Program Change Summary

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
(U) FY 1999 President's Budget:	17.7	11.7	6.6
(U) Appropriated Value:	17.7	11.7	
(U) Adjustments to FY 1998/1999 Appropriated Value/FY 1999 President's Budget:			
a. FY 98 SBIR Transfer	-0.3		
b. FY 98 BTR	-0.4		
c. Congressional Undistributed Reductions		-0.3	
d. Minor Pricing Adjustments			-0.1
(U) FY 2000/01 PRES Budget Submit:	17.0	11.4	6.5

(U) Change Summary Explanation:

(U) Funding: FY98 adjustments are due to SBIR transfer (-.4), BTR 98-32 Photonics Program shortfall (-.4). FY 99 adjustments are due to Congressional Undistributed Reductions (-.3). FY 00 adjustments are due to minor pricing adjustments (-.1).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) Other Program Funding Summary:

	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Complete</u>	<u>Total Cost</u>
OPN 214700	79.7	144.1	227.0	123.3	129.4	227.5	165.9	168.2	CONT	CONT

(U) Related RDT&E,N:

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- (U) PE 0604561N (SSN-21 Development)
- (U) PE 0604558N (New SSN Combat System Development)
- (U) PE 0604503N (Submarine Sonar Improvements))
- (U) PE 0604601N (Mine Development)

D. (U) Acquisition Strategy: The Full Scale Development and Limited Production contract is essentially complete. The follow-on maintenance contract with Lockheed-Martin Corporation, Syracuse is a sole source Cost Plus Award Fee (CPAF) with multiple option years ending in FY 2000. An additional follow-on sole source maintenance contract is planned with Lockheed-Martin Corporation, Syracuse.

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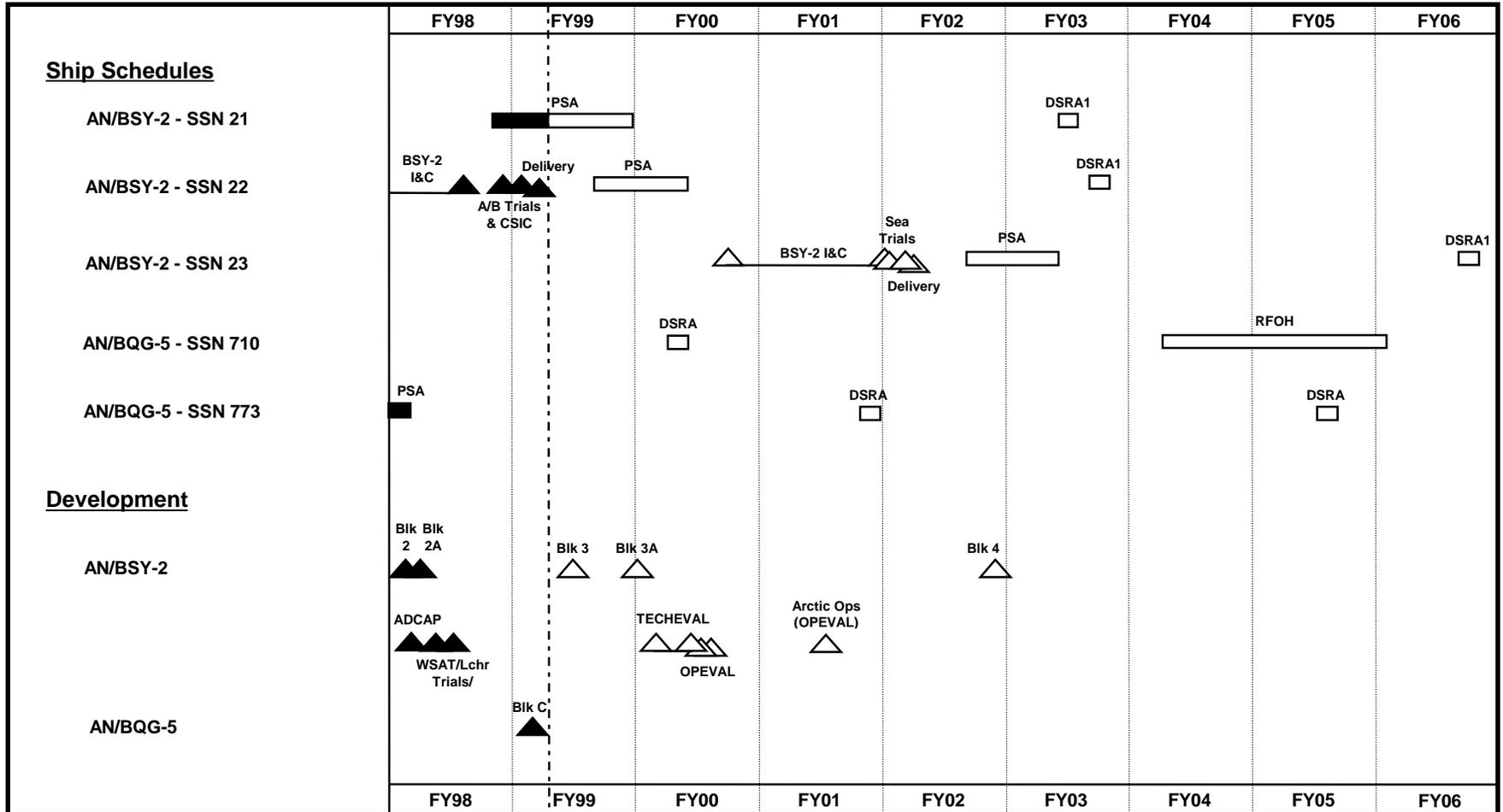
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E. (U) Schedule Profile:



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Exhibit R-3 Cost Analysis		Date: February 1999
APPROPRIATION/BUDGET ACTIVITY - RDT&E,N/5	PROGRAM ELEMENT NAME AND NUMBER Submarine Combat System / 0604524N	PROJECT NAME AND NUMBER AN/BSY-2 / F1941

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Primary/Ancillary H/W & S/W Dev, Tooling, Systems Eng, Licenses, Award fees	CPIF	LMC Syracuse, NY	1206.8	0		0				0	1206.8	Complete
Team Trainer Development	CPIF	Raytheon Portsmouth, RI	22.3	0		0				0	22.3	Complete
Primary hardware development	FFP	IBM, Manassas, VA	16.8	0		0				0	16.8	Complete
Government Furnished Equipment, Enhanced Modular Signal Processor	CPIF	AT&T Greensboro, NC	39.9	0		0				0	39.9	Complete
Hardware Engineering	WR	NSWC, Crane, IN	15.6	0		0				0	15.6	Complete
Trainer Development Support	WR	NTSC Orlando, FL	5.3	0		0				0	5.3	Complete
Systems Engineering, H/W & S/W Development	WR	NUWC, Newport, RI	300.2	.8	10/98	.5	10/99			.3	301.8	N/A
Software Development Systems Engineering, Licenses, Award Fees	CPAF	Lockheed-Martin Syracuse, NY	17.4	9.4	11/98	1.3	11/99			.8	28.9	N/A
Government Furnished Property	Various	Various	3.2	0		0				0	3.2	Complete
Miscellaneous	Various	Various	34.8	0		0				0	34.8	Complete
Subtotal Product Development			1662.3	10.2		1.8				1.1	1675.4	

Remarks: Award Fee: LMC, Syracuse CPAF contract: Maximum 10% award fee budgeted.

<u>Period</u>	<u>Rating</u>	<u>Percentage Awarded</u>
10/1/96-3/31/97	Outstanding	100%
4/1/97-9/30/97	Outstanding	100%
10/1/97-3/30/98	Above Average	80%
4/1/98-9/30/98	Outstanding	100%

The Lockheed Martin contract does not have a target value is a Level of Effort CPAF contract.

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Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	WR/RCP	NUWC Newport, RI	35.2	0		0				0	35.2	Complete
Subtotal Support			35.2	0		0				0	35.2	

Remarks:

Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation, Operational Test & Evaluation	WR	NUWC Newport, RI	3.4	1.1	10/98	4.7	10/99			2.4	11.6	N/A
Government Furnished Property	Various	Various	.5	0		0				0	.5	Complete
Subtotal T&E			3.9	1.1		4.7				2.4	12.1	N/A

Remarks: Test articles required in support of TECHEVAL/OPEVAL:

<u>FY98</u>			<u>FY00</u>		
<u>Description</u>	<u>Qty.</u>	<u>Cost</u>	<u>Description</u>	<u>Qty.</u>	<u>Cost</u>
Range Support		.075	Range Support		1.500
SSXBT/SSXS SV	75	.023	SSXBT/SSXS SV	100	.030
ADCAP Torpedo's	2	.054	ADCAP	18	.486
			TOTEMs	8	.100
			P-3 Support		.005
			TLAM*	1*	3.500*

* Current plan has TLAM launch cost funded by PMA281 as part of Operational Tomahawk Launch (OTL) requirement for FY00, and is not budgeted in this Program Element.

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Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total P _Y S Cost	FY99 Cost	FY99 Award Date	FY00 Cost	FY00 Award Date	FY01 Cost	FY01 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Management Support Services & Engineering Technical Services	CPAF	EG&G Gaithersburg, MD	76.9	0		0				0	76.9	Complete
Engineering Support	MIPR	Mitre McLean, VA	7.4	.1		0				0	7.5	N/A
Subtotal Management			84.3	.1		0				0	84.4	N/A
Remarks:												
Total Cost			1785.7	11.4		6.5				3.5	1807.1	N/A

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