

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: FEBRUARY 2002			
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-5					Navy Tactical Computer Resources/0604574N					
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		29.828	39.696	2.185	2.948	2.996	3.099	3.151	CONT.	CONT.
Standard Hardware/21353		28.926	2.825	2.185	2.948	2.996	3.099	3.151	CONT.	CONT.
NWTDB/X2265		0.902	0.000	0.000	0.000	0.000	0.000	0.000	N/A	4.607
AN/UYQ-70 Sub Common Elec Equip Replacement/S9074		0.000	6.740	0.000	0.000	0.000	0.000	0.000	N/A	6.740
AN/UYQ-70 Tactical Computer Resources/S9075		0.000	20.814	0.000	0.000	0.000	0.000	0.000	N/A	20.814
Multi-Level Security for Network-Centric AN/UYQ-70/S9076		0.000	3.370	0.000	0.000	0.000	0.000	0.000	N/A	3.370
Complementary High Energy Laser/Missile/S9077		0.000	5.947	0.000	0.000	0.000	0.000	0.000	N/A	5.947
Quantity of RDT&E Articles										
<p>A. Mission Description and Budget Item Justification: The Standard Hardware project in combination with UYQ-70 Display Improvements will perform the system engineering necessary to verify Commercial-off-the-Shelf/Open System Architecture (COTS/OSA) technologies and products as suitable for introduction into the AN/UYQ-70(V) Advanced Display System product line. The Naval Warfare Tactical Data Base (NWTDB) is an information management infrastructure project to solve data interoperability problems and implement DoD data architecture and standards in Navy. NWTDB is the data architecture component of Copernicus. NWTDB has developed management and engineering processes to define and translate information needs to automated systems, and to manage changes resulting from new operational requirements or technology advances.</p> <p>Project S9074 (Congressional add) provides AN/UYQ-70 Displays for submarine applications.</p> <p>Project S9075 (Congressional add) provides funding for continued AN/UYQ-70 Technology Insertion/Technology Refresh.</p> <p>Project S9076 (Congressional add) provides funding for Network-Centric AN/UYQ-70 applications.</p> <p>Project S9077 (Congressional add) provides funding for development of a small/inexpensive inertial measurement precision pointing control and instrumentation for a variety of ATP systems applications.</p>										

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RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY/BA-5	Navy Tactical Computer Resources/0604574N		
B. Program Change Summary:	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>
(U) FY 2002 President's Budget	30.608	3.836	
(U) Appropriated Value	30.891	41.036	
(U) Adjustments to FY2001/2002 Appropriated Value/FY 2002 President's Budget	-1.063	-1.340	
)U) FY 2003 Pres Budget Submit	29.828	39.696	2.185
Funding: FY-01 funding decrease due to Section 8086 - 7% Pro-Rata (-0.216), Gov-Wide Rescission (-0.067), FY-01 SBIR (-0.690), and 01 Actuals (-0.090). FY-02 funding decrease due to Realignment of Elems Tier (-0.986) and Section 8123: Management Reform Initiative (-0.354).			
Schedule: N/A			
Technical: N/A			

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EXHIBIT R-2a, RDT&E Project Justification						DATE: FEBRUARY 2002				
APPROPRIATION/BUDGET ACTIVITY			PROJECT NAME AND NUMBER							
RDT&E, N/BA-5			Standard Hardware/21353							
COST (\$ in Millions)		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost		28.926	2.825	2.185	2.948	2.996	3.099	3.151	CONT.	CONT.
RDT&E Articles Qty										
<p>A. Mission Description and Budget Item Justification: Perform the system engineering necessary to verify Commercial-off-the-Shelf/Open System Architecture (COTS/OSA) technologies and products as suitable for introduction into the AN/UYQ-70(V) Advanced Display System product line.</p> <p>(U) Program Accomplishment and Plans:</p> <p>FY 2001 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - (U) (\$0.736) Performed intensive study and testing of COTS/OSA technology that adheres to standards. - (U) (\$0.653) Met Navy emerging surface, subsurface and airborne tactical display/processor requirements of the future. - (U) (\$19.141) AN/UYQ-70 Technology Refreshment - (U) (\$0.669) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638. - (U) (\$7.727) Submarine Combat System Q-70 Retrofits <p>FY 2002 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$1.000) Perform intensive study and testing of COTS/OSA technology that adheres to standards. - (U) (\$0.725) Adapt these technologies and products to the Navy's tactical display/processor needs in the future. - (U) (\$1.100) Meet Navy emerging surface, subsurface and airborne tactical display/processor requirements of the future. <p>FY 2003 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$0.768) Perform intensive study and testing of COTS/OSA technology that adheres to standards. - (U) (\$0.550) Adapt these technologies and products to the Navy's tactical display/processor needs in the future. - (U) (\$0.867) Meet Navy emerging surface, subsurface and airborne tactical display/processor requirements of the future. 										

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Exhibit R-2a, RDT&E Project Justification

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EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2002
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5	PROGRAM ELEMENT NAME AND NUMBER Navy Tactical Computer Resources/0604574N	PROJECT NAME AND NUMBER Standard Hardware/21353

B. Other Program Funding Summary: N/A

- (U) Related RDT&E

PE 0603270N (ELECTRONIC WARFARE ADVANCED TECHNOLOGY)

PE 0603382N (ADV COMBAT SYSTEM TECHNOLOGY)

PE 0603502N (SHALLOW WATER MCM)

PE 0603755N (COOPERATIVE ENGAGEMENT)

PE 0604307N (AEGIS WEAPON SYSTEM MODS)

PE 0604366N (STANDARD MISSILE IMPROVEMENTS)

PE 0604372N (NEW THREAT UPGRADE)

PE 0604755N (SHIP SELF DEFENSE)

C. Acquisition Strategy: N/A

D. Schedule Profile: N/A

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Exhibit R-3 Cost Analysis (page 1)										DATE: FEBRUARY 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NAME AND NUMBER					
RDT&E, N/BA-5			Navy Tactical Computer Resources/0604574N				Standard Hardware/21353					
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 01 Award Date	FY 03 Cost	FY 03 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Various	Various	189.900	5.600		0.000		0.000		0.000	195.500	179.600
Ancillary Hardware Development			0.350	0.300							0.650	
Systems Engineering	Various	Various	45.341	16.240		1.925		1.592		CONT.	CONT.	CONT.
Licenses			0.500	0.500							1.000	
Tooling			0.500	0.500							1.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			236.591	23.140		1.925		1.592		CONT.	CONT.	CONT.
Remarks:												
Development Support Equipment											0.000	
Software Development	Various	Various	36.873	2.236		0.000		0.000		0.000	39.109	32.373
Training Development			1.000	0.375							1.375	
Integrated Logistics Support			1.597	0.575							2.172	
Configuration Management			0.500	0.200							0.700	
Technical Data			0.738	0.400							1.138	
GFE											0.000	
Subtotal Support			40.708	3.786		0.000		0.000		0.000	44.494	
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)										DATE: FEBRUARY 2002		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-5			Navy Tactical Computer Resources/0604574N			Standard Hardware/21353						
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
Developmental Test & Evaluation	Various	Various	23.085	1.200		0.250		0.200		CONT.	CONT.	CONT.
Operational Test & Evaluation	Various	Various	16.238	0.400		0.250		0.193		CONT.	CONT.	CONT.
Tooling											0.000	
GFE											0.000	
Subtotal T&E			39.323	1.600		0.500		0.393		CONT.	CONT.	CONT>
Remarks:												
Contractor Engineering Support	Various	Various	12.827	0.300		0.300		0.100		CONT.	CONT.	CONT.
Government Engineering Support	Various	Various	25.000	0.000		0.000		0.000		0.000	25.000	N/A
Program Management Support											0.000	
Travel			1.622	0.100		0.100		0.100		CONT.	CONT.	N/A
Labor (Research Personnel)											0.000	
Overhead											0.000	
Subtotal Management			39.449	0.400		0.400		0.200		CONT.	CONT.	CONT.
Remarks:												
Total Cost			356.071	28.926		2.825		2.185		CONT.	CONT.	CONT.
Remarks:												

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EXHIBIT R-2a, RDT&E Project Justification						DATE: FEBRUARY 2002				
APPROPRIATION/BUDGET ACTIVITY			PROJECT NAME AND NUMBER							
RDT&E, N/BA-5			Naval Warfare Tactical Data Base/X2265							
COST (\$ in Millions)		FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost		0.902	0.000	0.000	0.000	0.000	0.000	0.000	N/A	4.607
RDT&E Articles Qty										
<p>SPONSOR FUNDING DECISION REDUCES PROGRAM TO ZERO FY02 AND OUT TO FUND HIGHER PRIORITY PROGRAMS</p> <p>A. Mission Description and Budget Item Justification: The Naval Warfare Tactical Database (NWTDB) is an information management infrastructure project to solve data interoperability problems and implement DoD data architecture and standards in Navy. NWTDB has developed management and engineering processes to define and translate information needs to automated systems and to manage changes resulting from new operational requirements or technology advances. Database integration, data standardization, and configuration management are supported by reverse engineering database structures and definitions into a common format to facilitate data interoperability problem identification and resolution. The management and engineering processes and authoritative database structures are documented in the NWTDB Standards Manual which is distributed to Navy C4ISR and combat system architects, system developers, reference database producers, other services and agencies, and selected foreign governments. The Data Analysis and Reconciliation Tool (DART) is a Microsoft Windows-based application that was developed using an evolutionary process to support the full information management life cycle, i.e., linking databases and transfer formats to operational information requirements. DART supports systems documentation, configuration management, DoD standard data element generation, and requirements traceability. In August 1996, DASN C4I recommended the NWTDB process and DART tool to ASD C3I as a practical approach to solve data interoperability problems and support database integration, especially for the Global Command and Control System. NWTDB management process received OSD award in 1993. Management responsibilities are defined in OPNAVINST 9410.6 of 13 Jul 93, "NWTDB Requirements for Tactical Naval Warfare Systems," which implements DoD Directive 4630.5 of 12 Nov 92, "Compatibility, Interoperability and integration of Tactical Command, Control, Communication and Intelligence (C3I) Systems," and DoD Directive 8320.1 of 26 Sep 91, "DoD Data Administration." OPNAVINST 9410.6 also specifies that Navy system developers and database producers will transition to NWTDB data standards and structures by the year 2000.</p>										

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EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2002
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5	PROGRAM ELEMENT NAME AND NUMBER Navy Tactical Computer Resources/0604574N	PROJECT NAME AND NUMBER Naval Warfare Tactical Data Base/X2265

(U) Program Accomplishment and Plans:

FY 2001 ACCOMPLISHMENTS:

- (U) (\$0.120) Enhanced DART to support user requirements.
- (U) (\$0.120) Incorporated emerging commercial standards, technologies and trends for inclusion in the NWTDB standard.
- (U) (\$0.292) Continued participation with FIWC/DRWG/others as required to prioritize data fill/data standardization issues. Prioritized issues with recommendations to program office.
- (U) (\$0.071) Participated with CRWG to identify and resolve selected data fill/data format issues. Prioritized issues with recommendations to program office.
- (U) (\$0.160) Updated and improved capability of NWTDB Web environment. Created comprehensive Web site with applicable Naval/DoD publications, instructions, links and guidance to system developers on information engineering.
- (U) (\$0.139) Acted as liaison to DISA data standardization efforts to promote Navy standards. Continued research on data standardization in order to submit data models/data elements as candidate DoD standards.

FY 2002 PLANS:

No funding beginning in FY02.

FY 2003 PLANS:

No funding beginning in FY02.

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5	PROGRAM ELEMENT NAME AND NUMBER Navy Tactical Computer Resources/0604574N	FEBRUARY 2002
B. Other Program Funding Summary: N/A (U) Related RDT&E: N/A C. Acquisition Strategy: N/A D. Schedule Profile: N/A		

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Exhibit R-3 Cost Analysis (page 1)							DATE: FEBRUARY 2002					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-5			Navy Tactical Computer Resources/0604574N			Naval Warfare Tactical Data Base/X2265						
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
Primary Hardware Development												
Ancillary Hardware Development												
Systems Engineering	BPA	ORCI, Hanahan, SC	1.517	0.501	02/01					N/A	2.018	N/A
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			1.517	0.501		0.000		0.000		N/A	2.018	CONT.
Remarks:												
Development Support Equipment												
Software Development	BPA	ORCI, Hanahan, SC	1.599	0.320	02/01					N/A	1.919	N/A
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
GFE												
Subtotal Support			1.599	0.320		0.000		0.000		N/A	1.919	CONT.
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)							DATE: FEBRUARY 2002					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NAME AND NUMBER						
RDT&E, N/BA-5			Navy Tactical Computer Resources/0604574N			Naval Warfare Tactical Data Base (NWTBD) X2265						
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
Developmental Test & Evaluation												
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0.000	0.000		0.000		0.000		N/A	0.000	N/A
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support	BPA	BAH, San Diego, CA	0.137	0.000	N/A					N/A	0.137	0.137
Program Management Support	FFP	PRC, San Diego, CA	0.360	0.081	02/02					N/A	0.441	0.441
Travel	N/A	SPAWAR, San Diego, CA	0.092	0.000	10/02					N/A	0.092	0.092
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.589	0.081		0.000		0.000		N/A	0.670	0.670
Remarks:												
Total Cost			3.705	0.902		0.000		0.000		N/A	4.607	4.607
Remarks:												

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EXHIBIT R-2a, RDT&E Project Justification						DATE: FEBRUARY 2002			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5			PROJECT NAME AND NUMBER Complementary High Energy Laser/Missile for SSD/S9077						
COST (\$ in Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Project Cost	0.000	5.947	0.000	0.000	0.000	0.000	0.000	N/A	5.947
RDT&E Articles Qty									

A. Mission Description and Budget Item Justification: Development of a small and inexpensive inertial measurement system (SIMS) that will provide precision pointing control and instrumentation for a variety of ATP system applications with primary emphasis on laser weapons. Research to develop a sufficient understanding of the mechanism for the reduction of the radar system so that credible estimates can be made of the requisite laser power/time on target. It is also critical to conduct appropriate systems engineering analysis to assess the implication of the complementary weapon concept to the defensive missile system capability and combat system effectiveness of the combined systems.

(U) Program Accomplishments and Plans:

FY 2001 ACCOMPLISHMENTS

No funding provided

FY 2002 PLANS

-(U) (\$2.000) Develop small/inexpensive SIMS.

-(U) (\$3.947) Research laser plus missiles for Ship Self Defense.

FY 2003 PLANS

No funding provided

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NAME AND NUMBER	PROJECT NAME AND NUMBER
RDT&E, N/BA-5	Navy Tactical Computer Resources/0604574N	Complementary High Energy Laser/Missile for SSD/S9077
<p>B. Other Program Funding Summary: N/A (U) Related RDT&E: N/A</p> <p>C. Acquisition Strategy: N/A</p> <p>D. Schedule Profile: N/A</p>		

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Exhibit R-3 Cost Analysis (page 1)							DATE: FEBRUARY 2002					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N/BA-5			PROGRAM ELEMENT Navy Tactical Computer Resources/0604574N			PROJECT NAME AND NUMBER Complementary High Energy Laser/Missile for SSD/S9077						
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
Primary Hardware Development												
Ancillary Hardware Development												
Systems Engineering												
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			0.000	0.000		0.000		0.000		N/A	0.000	N/A
Remarks:												
Development Support Equipment												
Software Development												
Training Development												
Integrated Logistics Support												
Configuration Management												
Technical Data												
GFE												
Subtotal Support			0.000	0.000		0.000		0.000		N/A	0.000	N/A
Remarks:												

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APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NAME AND NUMBER					
RDT&E, N/BA-5			Navy Tactical Computer Resources/0604574N				Complementary High Energy Laser/Missile for SSD/S9077					
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
Developmental Test & Evaluation						5.947					5.947	
Operational Test & Evaluation												
Tooling												
GFE												
Subtotal T&E			0.000	0.000		5.947		0.000		N/A	5.947	N/A
Remarks:												
Contractor Engineering Support												
Government Engineering Support												
Program Management Support												
Travel												
Labor (Research Personnel)												
Overhead												
Subtotal Management			0.000	0.000		0.000		0.000		N/A	0.000	N/A
Remarks:												
Total Cost						5.947		0.000		N/A	5.947	N/A
Remarks:												

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