

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-05					R-1 ITEM NOMENCLATURE 0604518N Combat Information Center Conversion			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	\$13.259	\$10.618	\$6.908	\$7.121	\$6.667	\$4.710	\$4.732	\$4.754
3094 / USW-Decision Support System (USW-DSS)	\$10.103	\$8.146	\$6.908	\$7.121	\$6.667	\$4.710	\$4.732	\$4.754
9566 / Integrated Tactical Command & Control Cell	\$0.000	\$2.472	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
1604 / NTDS Software Improvement	\$3.156	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
<p>The objective of this Program Element (PE), under Project 3094, is to integrate several current Undersea Warfare (USW) developmental technologies covered under Global Command and Control System - Maritime (GCCS-M) Operational Requirements Document (ORD) 510-06-99 (signed 02/99) to produce an integrated Undersea Warfare-Decision Support System (USW-DSS) (formerly named CUP - Common Undersea Picture; project title has been changed accordingly) for use by Carrier Strike Group (CSG) and Expeditionary Strike Group (ESG) air, surface, submarine, and surveillance USW and MIW assets. A USW-DSS Peer Review Group will select technologies to be incorporated into a build-test-build process to develop a net-centric USW Capability. Significant improvements will be made to USW multi-platform mission planning and evaluation, vulnerability assessment, situational awareness, collaborative communications, prosecution and execution, training, Operator Machine Interface (OMI), and operational reconstruction and analysis. USW-DSS will align with and build upon common architectures, including GCCS-M, incorporating "Best of Best" applications into a common Sea Combat Commander/Theater Commander Toolset. Successive software builds will be delivered to the GCCS-M Program of Record for production and fleet fielding.</p>								
<p>This PE, under Project 9566, (established via FY 2005 ITC3 Congressional Add) is to develop the Integrated Tactical Command and Control Console (ITC3), the horizontal display variant of the new family of data processing and display components in the Future Common Display and Multi-Modal Workstation family of products. The ITC3 is the first data processing and display system designed from the deck plate up in accordance with Open Architecture Computing Environment and Human Systems Integration standards. ITC3 combines the processing plant and the horizontal display tier into a single element, enabled by commercial off-the-shelf (COTS) technology, resulting in a reduction in space and power and weight requirements.</p>								
<p>This PE, under Project 1604, will fund the Advanced Combat Direction System (ACDS) Block 0 and Shipboard Gridlock System/Auto Correlation (SGS/AC) Baseline 5.1 computer program upgrade. In FY04, this Project will complete computer program development upgrades to SGS/AC Baseline 5.1 and ACDS Block 0 for Amphibious class ships and complete systems integration efforts to test between ACDS Block 0 and SGS/AC Baseline 5.1. In FY04, this Project will also complete SSDS MK2 systems engineering to finalize Interoperability Change Proposal (ICP) and Engineering Change Proposal (ECP) and start development. Final test and deliveries in FY05 and outyears are programmed under PE 0603879N, Project 3031.</p>								

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Exhibit R-2, RDTEEN Budget Item Justification
(Exhibit R-2, page 1 of 10)

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EXHIBIT R-2a, RDT&E Project Justification							DATE: FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05		PROGRAM ELEMENT NUMBER AND NAME 0604518N Combat Information Center Conversion			PROJECT NUMBER AND NAME 3094 / USW-Decision Support System (USW-DSS)			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	10.103	8.146	6.908	7.121	6.667	4.710	4.732	4.754
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Project 3094 will leverage technologies from several current USW development efforts and developers' tool sets through a peer-reviewed technology selection and evolutionary development build-test-build process to develop an Undersea Warfare-Decision Support System (USW-DSS) capability for Carrier Strike Group (CSG) and Expeditionary Strike Group (ESG) Surface, Submarine, Air, and support assets. Significant improvements will be made to USW multi-platform mission planning and evaluation, vulnerability assessment, situational awareness, collaborative communications, prosecution and execution, training, OMI, and operational reconstruction and analysis. USW-DSS will align and build upon common architectures, including GCCS-M, incorporating the "Best of Best" applications into a common Sea Combat Commander/Theater Commander Toolset for installation on supporting shore nodes, one CSG in FY 2004, and two CSGs/ESGs per year starting in FY 2006.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05	PROGRAM ELEMENT NUMBER AND NAME 0604518N Combat Information Center Conversion	PROJECT NUMBER AND NAME 3094 / USW-Decision Support System (USW-DSS)																	
B. Accomplishments/Planned Program																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 15%;">FY 04</td> <td style="width: 15%;">FY 05</td> <td style="width: 15%;">FY 06</td> <td style="width: 15%;">FY 07</td> </tr> <tr> <td>USW-DSS GCCS-M, DII-COE Integration</td> <td>1.230</td> <td>1.274</td> <td>1.356</td> <td>1.356</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						FY 04	FY 05	FY 06	FY 07	USW-DSS GCCS-M, DII-COE Integration	1.230	1.274	1.356	1.356	RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07															
USW-DSS GCCS-M, DII-COE Integration	1.230	1.274	1.356	1.356															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px; min-height: 60px;"> Defense Information Infrastructure-Common Operating Environment (DII-COE), Global Command and Control System - Maritime (GCCS-M) Licenses and integration; Command and Control integration testing; network and security testing and certifications. </div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 15%;">FY 04</td> <td style="width: 15%;">FY 05</td> <td style="width: 15%;">FY 06</td> <td style="width: 15%;">FY 07</td> </tr> <tr> <td>USW-DSS Requirements Analysis</td> <td>1.652</td> <td>1.778</td> <td>1.778</td> <td>1.778</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						FY 04	FY 05	FY 06	FY 07	USW-DSS Requirements Analysis	1.652	1.778	1.778	1.778	RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07															
USW-DSS Requirements Analysis	1.652	1.778	1.778	1.778															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px; min-height: 60px;"> Requirements analysis and design; net-centric USW metrics analysis; operational context analysis; functional analysis, interface design, and system specifications supporting mission planning and evaluation, vulnerability assessment, situational awareness, collaborative communications, prosecution and execution, training, Operator Machine Interface (OMI) and operational reconstruction and analysis. </div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 15%;">FY 04</td> <td style="width: 15%;">FY 05</td> <td style="width: 15%;">FY 06</td> <td style="width: 15%;">FY 07</td> </tr> <tr> <td>USW-DSS TDA Support</td> <td>2.147</td> <td>2.314</td> <td>2.314</td> <td>2.314</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						FY 04	FY 05	FY 06	FY 07	USW-DSS TDA Support	2.147	2.314	2.314	2.314	RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07															
USW-DSS TDA Support	2.147	2.314	2.314	2.314															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px; min-height: 60px;"> Technical Design Agent support; Peer Review Group technology developments and successive Engineering Development Model Build software development and modification with in-lab test bed; Test and Evaluation planning and support of Developmental Testing and early operational assessment. </div>																			

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B. Accomplishments/Planned Program (Cont.)				
	FY 04	FY 05	FY 06	FY 07
USW-DSS Carrier Integration	1.036	0.969	0.000	0.000
RDT&E Articles Quantity				
<div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>				
	FY 04	FY 05	FY 06	FY 07
USW-DSS Build Platform Integration/Application Dev	4.038	1.811	1.460	1.673
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> FY04/05 - Complete development of prototype Build 0 for use as temporary installation and support at-sea testing and exercises for one CSG in FY04 (STENNIS) and two CSGs in FY05 (Forward Deployed Naval Forces). FY04/05/06 - Begin Build 1 development and integration and OMI (Operator-Machine Interface) design; incorporate Peer Review Group technology developments into the build-test-build process; integrate air, surface, submarine and surveillance and MIW assets; develop evolutionary embedded training; provide Fleet liaison support. Coordinate and conduct FY05 at-Sea testing and deliver to GCCS-M for production build in FY 2006. FY05/06/07 - Begin Build 2 development and integration. Complete Build 2 development in FY07, and coordinate and conduct FY07 at-sea testing. </div>				
	FY 04	FY 05	FY 06	FY 07
RDT&E Articles Quantity				
<div style="border: 1px solid black; height: 70px; margin-top: 10px;"></div>				

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C. PROGRAM CHANGE SUMMARY:

	FY 2004	FY 2005	FY 2006	FY 2007
Funding:				
Previous FY 2005 President's Budget:	18.045	8.228	6.920	7.088
Current FY 2006/2007 President's Budget:	10.103	8.146	6.908	7.121
Total Adjustments	-7.942	-0.082	-0.012	0.033
Summary of Adjustments				
Congressional program reductions	-8.000			
Congressional undistributed reductions		-0.073		
Congressional rescissions	-0.111			
SBIR/STTR Transfer	-0.151			
Economic Assumptions	-0.005			
Other Navy/OSD Adjustments	0.325	-0.009	-0.012	0.033
Subtotal	-7.942	-0.082	-0.012	0.033

Schedule:

None

Technical:

None

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APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-05			PROGRAM ELEMENT NUMBER AND NAME 0604518N Combat Information Center Conversion			PROJECT NUMBER AND NAME 3094 / USW-Decision Support System (USW-DSS)				

D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
OPN BLI 2176/ USW Support Equipment (Grand Total BLI)	10.805	16.514	13.962	10.838	12.051	11.771	12.658	13.254	Continuing	Continuing
OPN BLI 2176/ USW Support Equipment	0.000	7.921	8.156	5.904	6.441	5.507	5.727	6.156	Continuing	Continuing
Specific Sub Procurement Item:										
Space Information Command and Control Programs, Undersea Warfare-Decision Support System (USW-DSS)										

E. ACQUISITION STRATEGY:

- Prime contractor award planned 1Q FY 2005.
- Successive Builds to be developed, tested and delivered to GCCS-M program of record for production and Fleet fielding.

F. MAJOR PERFORMERS:

- Johns Hopkins University Applied Physics Laboratory (JHU/APL), MD - USW-Decision Support System (USW-DSS) Technical Design Agent and Test & Evaluation support
- Naval Air Systems Command, Patuxent River, MD -USW-Decision Support System (USW-DSS) interface design and documentation, software management, test & evaluation
- Naval Sea Systems Command, Carderock, MD - USW-Decision Support System (USW-DSS)CUP interface design and documentation, software management, test & evaluation
- Naval Sea Systems Command, Dahlgren, VA - USW-Decision Support System (USW-DSS) requirements analysis, ship integration and mission planning support
- Naval Sea Systems Command, Keyport, WA - USW-Decision Support System (USW-DSS) Carrier integration and track management
- Naval Sea Systems Command, Newport, RI - USW-Decision Support System (USW-DSS) Technical Design Agent support; submarine integration.
- Space and Naval Warfare Systems Command, San Diego, CA - Defense Information Infrastructure-Common Operating Environment (DII-COE), GCCS-M, Command and Control (C2) collaboration tools, network and security certifications

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Exhibit R-3 Cost Analysis (page 1)										DATE: FEBRUARY 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDT&E, N / BA-05			0604518N Combat Information Center Conversion			3094 / USW-Decision Support System (USW-DSS)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary H/W & S/W Development	C/CPFF	JHU/APL, MD	0.000	0.870	12/03	0.665	12/04	0.638	12/05	0.638	12/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVAIR Patuxent River, MD	0.000	0.150	01/04	1.430	10/04	0.147	10/05	0.147	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVSEA Carderock, MD	0.000	0.916	11/03	0.867	10/04	0.490	10/05	0.490	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVSEA Dahlgren, VA	0.000	1.129	10/03	0.275	10/04	0.607	10/05	0.607	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVSEA Keyport, WA	0.000	0.299	11/03	0.243	10/04	0.248	10/05	0.248	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVSEA Newport, RI	0.000	1.130	12/03	0.272	10/04	0.921	10/05	0.921	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	SPAWAR San Diego, CA	0.000	0.500	12/03	2.010	10/04	0.391	10/05	0.391	10/06	Continuing	Continuing	
Primary H/W & S/W Development	C/CPFF	PROGENY, CA	0.000	2.143	11/03	0.522	11/04	1.800	11/05	0.000		0.000	4.465	
Primary H/W & S/W Development	C/CPFF	TBD, TBD	0.000					0.500	07/06	2.300	11/06	Continuing	Continuing	
Primary H/W & S/W Development	Var.	Var.	0.000	2.557	11/03	1.012	10/04	0.446	10/05	0.659	10/06	Continuing	Continuing	
Subtotal Product Development			0.000	9.693		7.296		6.188		6.401		Continuing	Continuing	
Remarks:														
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														

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Exhibit R-2, RD TEN Budget Item Justification
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Exhibit R-3 Cost Analysis (page 2)										DATE: FEBRUARY 2005				
APPROPRIATION/BUDGET ACTIVITY RD&E, N / BA-05			PROGRAM ELEMENT 0604518N Combat Information Center Conversion			PROJECT NUMBER AND NAME 3094 / USW-Decision Support System (USW-DSS)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
At-Sea Test & Evaluation	Var.	Var.	0.000			0.400	10/04	0.300	10/05	0.300	10/06	Continuing	Continuing	
Subtotal T&E			0.000	0.000		0.400		0.300		0.300		Continuing	Continuing	
Remarks:														
Program Management Support	Var.	Var.	0.000	0.410	12/03	0.450	11/04	0.420	10/05	0.420	10/06	Continuing	Continuing	
Subtotal Management			0.000	0.410		0.450		0.420		0.420		Continuing	Continuing	
Remarks:														
Total Cost			0.000	10.103		8.146		6.908		7.121		Continuing	Continuing	
Remarks:														

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EXHIBIT R4, Schedule Profile																								DATE:								
APPROPRIATION/BUDGET ACTIVITY										PROGRAM ELEMENT NUMBER AND NAME										PROJECT NUMBER AND NAME												
RDT&E, N / BA-05										0604518N Combat Information Center Conversion										3094 / USW-Decision Support System (USW-DSS)												
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition/Contract Milestones/Reviews																																
USW-DSS prototype Build 0 (Temporary Installs - CSGs)																																
USW-DSS System Development (Builds 1/2/3/4)																																
Test & Evaluation Milestones																																
USW-DSS At-Sea Tests (Builds 1/2/3/4)																																
Production Milestones																																
USW-DSS Software Delivery to GCCS-M for Production Build (Builds 1/2/3/4)																																
Deliveries - OPN BLI 2176 (N61 USW-DSS)																																

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