CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification						DATE:	ATE:	
						FEBRU <i>A</i>	RY 2006	
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMEN	CLATURE			
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-05 0604518N Combat Information Center of								
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	\$10.434	\$7.805	\$6.708	\$6.334	\$4.384	\$4.388	\$4.391	
3094 / USW-Decision Support System (USW-DSS)	\$8.017	\$6.805	\$6.708	\$6.334	\$4.384	\$4.388	\$4.391	
9566 / Integrated Tactical Command & Control Cell	\$2.417	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	
9999 / Congressional Adds	\$0.000	\$1.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The objective of Project 3094 is to integrate several current 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) for use by Carrier Strike Group (CSG) 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.

Project 9566 (established via FY 2005 ITC3 Congressional Add) developed 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.

Project 9844N (established via FY06 Command & Control (C2) Web-Based Architecture Congressional Add) develops a network accessible data service whose sole focus will be to provide data about US and foreign ships, plans and sensors that can be used to gain a strategic advantage. This system will serve threat/force information on-demand to other participants in the network as independent services that are accessed in a standardized manner, providing more reliable, consistent data sets across programs, easier and timelier updates to data sets, all while moving the Navy closer towards its goal of FORCEnet.

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EXHIBIT R-2a, RDT&E Project Justification	XHIBIT R-2a, RDT&E Project Justification									
							FEBRUA	RY 2006		
APPROPRIATION/BUDGET ACTIVITY	PROJECT NUMBE	R AND NAME	R AND NAME							
RDT&E, N / BA-05	0604518N Comba	t Information Cente	r Conversion		3094 / USW-Decision Support System (USW-DSS)					
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011		
Project Cost		8.017	6.805	6.708	6.334	4.384	4.388	4.391		
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) 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 and two CSGs per year starting in FY 2006.

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			FEBRUARY 2006			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME			
RDT&E, N / BA-05	0604518N Combat Information Center Conversion	3094 / USW-Decision Support System (USW-DSS)				

B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
USW-DSS GCCS-M, DII-COE Integration	1.274	1.229	1.298
RDT&E Articles Quantity			

Continuing 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.

	FY 05	FY 06	FY 07
USW-DSS Requirements Analysis	1.778	1.778	1.597
RDT&E Articles Quantity			

Continuing 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.

	FY 05	FY 06	FY 07
USW-DSS TDA Support	2.314	2.314	2.128
RDT&E Articles Quantity			

Continuing 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.

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Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 3 of 11)

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EXHIBIT R-2a, RDT&E Project Justification			DATE:		
			FEBRUARY 2006		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME		
RDT&E, N / BA-05	0604518N Combat Information Center Conversion	3094 / USW-Decision Support System (USW-DSS)			

B. Accomplishments/Planned Program (Cont.)

	FY 05	FY 06	FY 07
USW-DSS Carrier Integration	0.959	0.000	0.000
RDT&E Articles Quantity			

Completed Carrier Tactical Support Center (TSC) Integration and Tactical Decision Aids (TDAs); management and communication of contact/track data and contact database interface design.

	FY 05	FY 06	FY 07
USW-DSS Build Platform Integration/Application Dev.	1.692	1.484	1.685
RDT&E Articles Quantity			

FY05 - Completed development of prototype Build 0 for use as temporary installation and support at-sea testing and exercises for two CSGs in FY05 (Forward Deployed Naval Forces). FY05/06 - Continue 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.

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Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 4 of 11)

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EXHIBIT R-2a, RDT&E Project Justification					DATE:
					FEBRUARY 2006
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	1	PROJECT NUMBE	R AND NA	AME
RDT&E, N / BA-05	0604518N Combat Information Center Conversion	;	3094 / USW-Dec	ision Sup	port System (USW-DSS)
C. PROGRAM CHANGE SUMMARY:					
Funding:	FY 2	005	FY 2006	FY 2007	
FY06 President's Budget:		146	6.908	7.121	
FY07 President's Budget:	8.	017	6.805	6.708	
Total Adjustments	-0.	129	-0.103	-0.413	
Summary of Adjustments					
Other General Provisions	-0	129	-0.103		
Programmtic Changes:				-0.413	
0.1004		400	0.400	0.440	
Subtotal	-U.	129	-0.103	-0.413	
Schedule:					
Not Applicable					
Technical:					
Not Applicable					

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EARIDII K-Za, KDIQE	Anibit K-2a, KDT&E Project Justinication						DATE:	DATE.			
								FEBRU	JARY 2006		
APPROPRIATION/BUDGET	PROGRAM ELEMENT	NUMBER AND NA	AME	PROJECT NU	PROJECT NUMBER AND NAME						
RDT&E, N /	BA-05	0604518N Combat Inf	Information Center Conversion 3094 / USW-Decision Support System (USW-DSS)								
D. OTHER PROGRA	AM FUNDING SUMMARY:								То	Total	
Line Item No. & Na	<u>ıme</u>	FY 20	005 FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Complete	Cost	
OPN BLI 2176/ USW	/ Support Equipment	7.54	6 8.049	4.481	6.346	5.401	5.615	6.048	Continuing	Continuing	

E. ACQUISITION STRATEGY:

EXHIBIT P-2a PDT&E Project Justification

- Prime contractor funded through SSC/Charleston contract.
- Mission Planning capability developed by SYS Technologies (formerly Polexis) under SPAWAR contract.

F. MAJOR PERFORMERS:

- Johns Hopkins University Applied Physics Laboratory (JHU/APL), MD USW-Decision Support System (USW-DSS) Technical Design Agent (TDA) Support, 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, mission planning support
- Naval Sea Systems Command, Keyport, WA USW-Decision Support System (USW-DSS) Carrier integration, track management
- Naval Sea Systems Command, Newport, RI USW-Decision Support System (USW-DSS) Technical Design Agent (TDA), CHENG, submarine integration.
- Space and Naval Warfare Systems Command, San Diego, CA GCCS-M, Command and Control (C2) collaboration tools, network and security certifications, mission planner development
- Progeny Systems Corporation, Manassas, VA USW-Decision Support System (USW-DSS) hardware/software integration
- SYS Technologies, San Diego, CA USW-Decision Support System (USW-DSS) Mission Planning System (MPS)

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DATE:

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Exhibit R-3 Cost Analysis (pag	no 1)							DATE:			FEBRUAR	V 2006		
APPROPRIATION/BUDGET ACTIV		PROGRAM E	EMENT			PROJECT N	LIMBER AND	NAME			LBRUAR	1 2000		
RDT&E, N / BA-05			mbat Informatio	n Center Co	nversion		_	Support Syst	em (USW-I	088)				
Cost Categories	Contract	Performing	Total	00.110. 00		00017001	FY 05		FY 06		FY 07			
	Method	Activity &	PY s			FY 05	Award	FY 06	Award	FY 07	Award	Cost to	Total	Target Value
	& Type	Location	Cost			Cost	Date		Date		Date	Complete	Cost	of Contract
Primary H/W & S/W Development	C/CPFF	JHU/APL, MD	0.000			1.316	12/04	1.251	01/06	0.638	11/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVAIR Patuxent River, MD	0.000			0.705	10/04	0.147	02/06	0.147	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVSEA Carderock, MD	0.000			0.967	10/04	0.752	12/05	0.490	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVSEA Dahlgren, VA	0.000			0.159	10/04	0.055	12/05	0.100	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVSEA Keyport, WA	0.000			0.343	10/04	0.656	11/05	0.650	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	NAVSEA Newport, RI	0.000			0.694	10/04	2.653	12/05	1.376	10/06	Continuing	Continuing	
Primary H/W & S/W Development	WX	SPAWAR San Diego, CA	0.000			2.141	10/04	0.000	02/06	0.000	10/06	Continuing	Continuing	
Primary H/W & S/W Development	SBIR/WX	PROGENY, Manassas, VA	0.000			0.522	11/04	0.000	N/A	0.000	N/A	Continuing	Continuing	
Primary H/W & S/W Development	C/CPFF	TBD, TBD	0.000							1.928	11/06	Continuing	Continuing	
Primary H/W & S/W Development	Var.	Var.	0.000			0.450	10/04	0.571	11/05	0.659	10/06	Continuing	Continuing	
Subtotal Product Development			0.000			7.297		6.085		5.988		Continuing	Continuing	
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	
Remarks:														
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									DATE:										
Exhibit R-3 Cost Analysis (page 2)										FEBRUARY 2006									
APPROPRIATION/BUDGET ACTIVI	TY		PROGRAM EI	LEMENT			PROJECT N	UMBER AND	NAME						-				
RDT&E, N / BA-05						3094 / USW-Decision Support System (USW-DSS)													
Cost Categories	Contract Method	Performing Activity &		Total PY s				FY 05 Award		FY 06 Award		FY 07 Award	Cost to	Total	Target Value				
	& Type	Location		Cost						Date		Date			of Contract				
At-Sea Test & Evaluation	Var.	Var.		0.000			0.300	10/04	0.300		0.300	10/06	Continuing	Continuing					
														<u> </u>					
														<u> </u>					
														 					
Subtotal T&E				0.000			0.300		0.300		0.300		Continuing	Continuing					
Sublotal T&E	l	<u>.l</u>		0.000			0.300		0.300		0.300		Continuing	Continuing					
Program Management Support	Var.	Var.		0.000			0.420	11/04	0.420	02/06	0.420	11/06	Continuing	Continuing					
														<u> </u>					
				 										 					
Subtotal Management				9.996			0.420		0.420		0.420		Continuing	Continuing					
Remarks:					'														
Total Cost				9.996			8.017		6.805		6.708		Continuing	Continuing					
Remarks:																			

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EXHIBIT R4, Schedule P																								DATE		FE	BRU	ARY:	2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-05																PROJECT NUMBER AND NAME 3094 / USW-Decision Support System (USW-DSS)															
Fiscal Year					200	05			20	06			200)7			20	08			20	09			20	10			20 ⁻	11	
				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									Build 2	2 Cont Award																					
1		'	'	'	'	i '	1									М	lulti-Bu	ild Bro	ad Age	ency Ar	nounc	ement									
USW-DSS prototype Build 0 (Temporary Installs - CSGs)					Build	0	D.	ild 1																Build 3							
USW-DSS System Development (Builds 1/2/3/4)							- Bui	IIQ I								Build 2] [
Test & Evaluation Milestones USW-DSS At-Sea Tests (Builds 1/2/3/4)			E	Build 0					Bui	ild 1					E	Build 2								(GCC	Id 3 CS-M OT)						
Production Milestones USW-DSS Software Delivery to GCCS-M for Production Build (Builds 1/2/3/4)									1	Build 1	1 CSG		C	SG	CSG		Build 2	CSG	CSG			CSG	CSG			CSG				CSG	CSG
Deliveries - OPN BLI 2176 (N71 USW-DSS)										\triangle				\triangle	\triangle			Δ	Δ			\triangle				Δ	Δ			\triangle	

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Exhibit R-4a, Schedule Detail	DATE: FEBRUARY 2006										
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT	JMBER AND NAME								
RDT&E, N / BA-05	0604518N Co	ombat Informati	on Center Con	version	3094 / USW-	Decision Support System (USW-DSS)					
Schedule Profile		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011			
USW-DSS Prototype Build 0 (Temporary Installs - CSGs)		2Q									
USW-DSS At-Sea Test - Build 0		1Q									
USW-DSS Build 1 Complete		100	1Q								
USW-DSS At-Sea Test - Build 1			2Q-3Q								
USW-DSS Build 1 S/W Delivery to GCCS-M for Prdtn Bui	ld.		3Q								
USW-DSS Delivery to CSGs	<u> </u>		3Q-4Q					 			
Contract Award			0Q 1 Q	1Q				 			
USW-DSS Delivery to CSGs				3Q-4Q				 			
USW-DSS Build 2 Complete				0Q TQ	1Q			 			
USW-DSS At-Sea Test - Build 2					1Q-2Q						
USW-DSS Build 2 S/W Delivery to GCCS-M for Prdtn Bui	ld.				2Q						
USW-DSS Delivery to CSGs	<u> </u>				3Q-4Q						
USW-DSS Delivery to CSGs					JQ- + Q	3Q-4Q					
USW-DSS Build 3 Complete						0Q +Q	1Q				
USW-DSS At-Sea Test - Build 3							1Q-2Q				
USW-DSS Build 2 S/W Delivery to GCCS-M for Prdtn Bui	ld.						3Q				
USW-DSS Delivery to CSGs							3Q-4Q				
USW-DSS Delivery to CSG/ Non CSG Platforms							0Q TQ	3Q-4Q			
USW-DSS Build 4 Complete								Cont.			
OOW-DOO Balla 4 Complete								Cont.			
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EXHIBIT R-2a, RDT&E Project Justification			DATE:
			FEBRUARY 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA-05	0604518N Combat Information Center Conversion	9844N / Command & Contro	ol (C2) Web-Based Architecture

CONGRESSIONAL ADDS:

	FY 06		
9844N	1.000		
Command & Control (C2) Web-Based Architecture			

FY06 Congressional Add: Command & Control (C2) Web-Based Architecture develops a network accessible data service whose sole focus will be to provide data about US and foreign ships, plans and sensors that can be used to gain a strategic advantage. This system will serve threat/force information on-demand to other participants in the network as independent services that are accessed in a standardized manner, providing more reliable, consistent data sets across programs, easier and timelier updates to data sets, all while moving the Navy closer towards its goal of FORCEnet.

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