EXHIBIT R-2, RDT&E Budget Item Justification							DATE: Februa i	ry 2003
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION	ON, NAVY /	BA-5			R-1 ITEM NOMEN 0604231N - TACT	-		
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost	64.068	68.768	68.805	60.460	63.161	60.303	62.811	65.31
E2213 MISSION PLANNING	23.593	24.099	25.300	18.759	14.782	8.736	8.894	9.04
W9123 FORCENET	0.000	12.509	14.654	15.669	17.155	19.099	21.053	23.00
X0486 GCCS-M TACMOBILE	1.540	1.437	1.317	1.229	1.264	1.497	1.523	1.55
X0521 GCCS-M INTELLIGENCE APPLICATIONS	6.400	3.033	2.601	2.986	3.306	3.991	4.066	4.142
X0709 GCCS-M MARITIME APPLICATIONS	6.801	5.825	7.468	6.099	7.942	8.571	8.732	8.895
X2009 TRUSTED INFORMATION SYSTEMS	3.815	2.906	2.146	1.492	2.147	1.836	1.659	1.482
X2305 GCCS-M COMMON APPLICATIONS	10.429	12.486	10.964	9.197	12.879	11.759	11.980	12.206
X2306 NAVAL SIMULATION SYSTEM	3.243	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X2307 INTEGRATED SHIPBOARD NETWORK SYST	3.457	1.567	1.041	1.697	1.246	1.373	1.398	1.424
X3032 NTCSS ENTERPRISE DATABASE AND MLDN	4.790	4.906	3.314	3.332	2.440	3.441	3.506	3.57

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Tactical Command System (TCS) upgrades the Navy's Command, Control, Computer and Intelligence (C3I) systems and processes C3I information for all warfare mission areas including planning, direction and reconstruction of missions for peacetime, wartime and times of crises. A major component of the TCS is the Global Command and Control System - Maritime (GCCS-M). GCCS-M is the Navy's fielded Command and Control System, a key component of the Copernicus ... Forward C4I strategy, and is the Navy's tactical implementation of the Global Command and Control System (GCCS-M has aggressively pursued an evolutionary acquisition strategy in rapidly developing and fielding new C4I capabilities for GCCS-M Afloat, GCCS-M Ashore, GCCS-M Tactical/Mobile and TIS users. GCCS-M current phase includes continued usage of the Defense Information Infrastructure Common Operating Environment (DII COE), as stipulated by the Joint Technical Architecture, incorporation of Fleet requirements for merging tactical and non-tactical networks, and application of mature Web and Personal Computer (PC) technologies to provide required information/capabilities. This phase will provide, in the short term, deployment of an integrated UNIX/PC/COTS based Naval implementation of GCCS-M which will provide the warfighter with a cost-effective, user-friendly, comprehensive C4I solution and, in the long-term, a continuous, integrated Command and Control link from sensor to shooter, including full-range real-time or near-real-time information to weapon systems for decision makers. The Naval Simulation System (NSS) provides a capability to simulate the execution of all Naval Warfare including Operations Other Than War to be used for a number of related purposes. Fleet Command Centers use this capability to course of Action Assessment. NSS is a multi-warfare, object oriented, Monte Carlo simulation system. NSS provides the Fleet a capability to evaluate alternate Courses of Action (COA) and C4ISR architectures and supports the Joint Forces Air Component Com

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification		DATE:	
			February 2003
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5	0604231N - TACTICAL CO	MMAND SYSTEM	
	·	•	<u> </u>

(CONTINUED FROM PREVIOUS PAGE)

The Integrated Shipboard Network System (ISNS) program provides every Navy ship, including submarines, with a reliable, high-speed Local Area Network (LAN) that will provide LAN and Wide Area Network (WAN) access to the DISN WAN (Secure and Nonsecure Internet Protocol Router Network -SIPRNet and NIPRNet). It provides real-time information exchange between afloat units, Component Commanders, numbered Fleet Commanders and Fleet CINCs through the migration of existing legacy systems into the IT-21 strategy and is a key factor in the implementation of the Navy's portion of Joint Vision 2010. Additionally, this RDT&E Project funding supports design, development and testing of two components of the Navy Tactical Command Support Systems (NTCSS) web initiative, NTCSS Enterprise Database and Maritime Logistics Data Network (MLDN). The development of a web-enabled enterprise database for NTCSS application will place all NTCSS databases into a similar structure, allowing greater interoperability between applications. MLDN will facilitate the movement of administrative workload from ships to shore. FORCEnet initiatives include the necessary Transformation Master Planning required across all management execution horizons (Near/Mid/Long-Term) to evolve towards a fully-netted human-centrically optimized combat force structure. FORCEnet efforts will serve as the transformational change agent for the integration of all Navy and Marine Corps mission capabilities, system and human-centric architectures coupled with enabling technologies grounded in a business-based program order-of-buy approach combined with the technical program management/execution responsibilities leading Navy and Marine Corps transformational capabilities towards a fully netted combat force. FORCEnet is the architecture and building blocks of sensors, networks, decision aids, weapons, warriors and supporting systems integrated into a highly adaptive, human-centric, comprehensive system that operates from seabed to space, from sea to land. The goal of the NavM

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EXHIBIT R-2a, RDT&E Project Justificat	ion						DATE:	
							Februa	ry 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEME	ENT NUMBER AND	NAME		PROJECT NUMBE	R AND NAME		
RDT&E, N / BA-5	0604231N Tactical	Command System			E2213 Mission Pla	nning		
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	23.593	24.099	25.300	18.759	14.782	8.736	8.894	9.042
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Joint Mission Planning System (JMPS) is a co-development program with the Navy, Air Force, United States Special Operations Command (USSOCOM), and Army to develop a scaleable, extensible, and configurable open architecture to meet a full range of Joint automated planning needs. The JMPS mission planning system will provide the information, automated tools, and decision aids needed to rapidly plan for aircraft, weapon, or sensor missions as well as post-mission analysis of recorded data. JMPS will be a Defense Information Infrastructure/Common Operating Environment (DII/COE) complaint mission planning system, which will meet future DOD requirements for interoperability within and across DOD C4I systems while reducing life-cycle cost. As a key net-centric warfare enabler, JMPS will provide seamless interoperability, improved data availability and flexibility. JMPS accomplishes these goals by establishing a standardized environment for mission planning systems (the Joint Mission Planning Environment (JMPE) that provides a DII COE/Joint Technical Architecture (JTA) compliant Windows 2000 core, a mission planning infrastructure of basic databases, management tools, and framework services, and set a common mission planning components. A JMPS mission planning system is a combination of the JMPE together with platform/Service unique components and the necessary system hardware to meet user mission planning needs and constraints. The Navy and Air Force will co-develop the common software, while individual platforms programs will develop platform specific functionality, similar to what is being done in both Tactical Automated Mission Planning System (TAMPS) and Air Force Mission Support System (AFMSS) programs. JMPS has adopted an evolutionary acquisition approach which will allow the warfighter to seamlessly perform basic-level flight planning with the JMPS Version 1 system, unit-level mission/combat planning with the JMPS Combat 1 system, and multi-unit/strike planning and force-level decision aids with the JMPS Follow-On Components system. The JMPS Version 1 system will provide basic flight planning, route planning/editing, file calculations, mapping, 3-D visualization, Common Mission Data Load (CMDL), and Intel interface. The JMPS Combat 1system is planned to be an enhanced version of JMPS Version 1 and will replace TAMPS in the fleet. JMPS Combat 1 will provide unit level planning, Precision Targeting Workstation (PTW) Imagery Interface, Global Command and Control System-Maritime (GCCS-M) interface, GPS Crypto Keys, Program Guided Munitions (PGM) planning, weather interface, Global Positions Systems (GPS). Prediction, Server Implementation. The JMPS Combat One will also serve as a common foundation to support mission planning for all legacy platforms. JMPS will evolve architecturally as necessary to support future platforms and weapons such as the Joint Strike Fighter (JSF) and Joint Air to Surface Standoff Missile (JASSM). The JMPS Follow-On Components system will be an enhanced version of JMPS Combat 1 to provide additional components and capabilities including a multi-unit level mission planning capability. Theater Ballistics Missile Command System (TBMCS) interface, route deconfliction, stores planning and weapon effectiveness, and Littoral Mission Planning Tools.

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EXHIBIT R-2a, RDT&E Project Justificat	tion			DATE:	
				February 2003	
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUM	MBER AND NAME	PROJECT NUMBER AND N	AME	
DTOE N / DAE	0604231N Tactical Commar	nd System	E2213 Mission Planning		
DT&E, N / BA-5	0604231N Tactical Comman	iid System	E2210 Mission Filanning		
Accomplishments/Planned Program		,	,		
·	FY 02	FY 03	FY 04	FY 05	
·		,	,	FY 05 0.000	

JMPS Version 1 and Combat 1 Development Effort- JMPS Version 1 and Combat 1 support during D/T & O/T. Nomination and assessment of JMPS Combat 1 contract incentive fees

Continue JMPS Combat 1 fix builds for any discrepancies identified during systems testing. Continue systems testing, start Unique Planning Component (UPC) testing, System of Systems testing, and Unique Planning Component (UPC) validations. Contract incentive fee. D/T Support--JMPS Combat 1 Pre-O/T Readiness Review and begin JMPS Combat 1 O/T late in FY03. Engineering Logistics & Management support. Provide collaboration support across platforms and weapons programs w/ Navy, Air Force, Army, and Marines.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	5.229	10.757	17.859
RDT&E Articles Quantity				

JMPS Follow-On Components Effort--Start JMPS Follow-On development planning effort. Coordinate and plan the development of additional mission planning components and capabilities including a multi-unit level mission planning capability, TBMCS interface, route deconfliction, stores planning and weapon effectiveness. Operational Test support for JMPS Follow -On development planning effort. Coordinate and plan the development of additional mission planning components and capabilities including a multi-unit level mission planning capability, TBMCS Interface, route deconfliction, stores planning and weapon effectiveness. JMPS Follow-On support during Operational testing. Nomination and assessment of JMPS Follow-On contract incentive fees. Continue JMPS Combat 1 fix builds for any discrepancies identified during systems testing. Continue systems testing, start UPC testing, System of Systems testing, and UPC validations. Develop Betas & Version Releases for Framework components & enhanced operability. Transition S&T (Science and Technology) initiatives into JMPS Follow-On.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.939	0.915	0.900
RDT&E Articles Quantity				

PFPS Component Migration to JMPS--Continue component development encompassed functionality, full documentation, User help-online support, component installation, developer and/or user training/CBT, and maintenance. PFPS Component Migration to JMPS Follow-On.

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HIBIT R-2a, RDT&E Project Justification					DATE:	February 2003
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	AND NAME		PROJECT NUMBER AN	ID NAME	
T&E, N / BA-5	0604231N Tactical command Sys	tem		E2213 Mission Planning		
C. PROGRAM CHANGE SUMMARY:						
Funding:	FY 2002	FY 2003	FY 2004	FY 2005		
Previous President's Budget:	20.759	24.644	17.244	11.003		
Current BES/President's Budget	23.593	24.099	25.300	18.759		
Total Adjustments	2.834	-0.545	8.056	7.756		
Summary of Adjustments						
Congressional program reductions						
Congressional undistributed reductions		-0.146				
Congressional rescissions						
SBIR/STTR Transfer	0.000					
Economic Assumptions	-0.066	-0.399	-0.583	-0.404		
Reprogrammings	2.900		0.000	0.400		
Other Navy/OSD Adjustments Congressional increases			8.639	8.160		
Subtotal	2.834	-0.545	8.056	7.756		
Schedule:						
The FY02 JMPS JC-1 contract schedule change	d from 2Q/02 to 3Q/02 due to waiti	ina for receipt o	f \$2.8M BTR	. .		
				-		
-						
Technical:						
Not Applicable						

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Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 5 of 90)

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EXHIBIT R-2a, RDT&E Project Justification						·		DATE:		
·									FEBRU	ARY 2003
APPROPRIATION/BUDGET ACTIVITY		PROGRAM E	LEMENT NUM	BER AND NAM	IAME					
RDT&E, N / BA-5		0604231N Ta	ctical Comman	d System		E2213 Mission	n Planning			
D. OTHER PROGRAM FUNDING SUMMARY:										
B. OTHER I ROCKAM I ONDING COMMARY.									To	Total
Line Item No. & Name	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Complete	Cost
BLI 287600 TAC A/C Mission Planning System	er 12.996	6.458	8.639	9.797	8.113	11.934	12.152	12.370	Continuing	Continuing
Related RDT&E:										
PE 0604215N Standards Development										
PE 0208006F Air Force Mission Support Sys	ste 17.300	16.540	62.348	144.059	144.544	247.154	98.609	96.164	Continuing	Continuing
(II) E ACQUIRITION STRATECY.										

(U) E. ACQUISITION STRATEGY:

The JMPS Acquisition strategy will evolve as the program matures but initially will cover the Engineering and Manufacturing Development (EMD) effort. The strategy entails a two-phased evolutionary approach to acquire the initial JMPS development effort. The combined USAF/USN Phase I of this effort obtained various technical studies, segment architect concept, design to cost estimate, and an architecture development statement of work. Phase I was added to the program to determine reduced cost strategies through software reuse from both USN TAMPS and USAF AFMSS programs. Additionally, this phase provided a risk reduction plan for the most effective migration of existing mission planning systems, Phase I was awarded to two contractors. In Phase II, one contractor was selected to develop the JMPS architecture work and version 1 mission planning components. Post version I component development will be broken into two phases. Components required to retire TAMPS and meet F-16 planning requirements will be developed under a modification to the existing architecture framework contract. All other combat and force level components will be acquired through a follow-on full and open competition.

CLASSIFICATION:

						DATE:						
Exhibit R-3 Cost Analysis (pag	e 1)									FEBRUARY 20	003	
APPROPRIATION/BUDGET ACTIV	ITY	PROGRAM E	LEMENT			PROJECT NU	IMBER AND N	NAME				
RDT&E, N / BA-5		0604231N Ta	ctical Command	d System		E2213 Mission	n Planning					
Cost Categories		Performing	Total		FY 03		FY 04		FY 05			
	Method	Activity &	_	FY 03	Award	FY 04	Award	FY 05	Award	Cost to	Total	Target Value
	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Primary Software Dev JV-1	SS/CPIF	NGIT, VA	29.655	4.217	11/02		11/03				33.872	33.872
Primary Software Dev JC-1	SS/CPIF	NGIT, VA	11.400	6.700	11/02	2.733	11/03			0.600	21.433	21.433
Primary Software Dev N-PFPS	MP	Eglin AFB. Florida	6.315	0.300	11/02	0.500	11/03	0.500	11/04		7.615	,
Primary Software N-PFPS	MP	Hill AFB, Utah	1.212	0.209	11/02	0.275	11/03	0.300	11/04		1.996	
Primary Software Dev Follow-on	TBD	TBD		4.173	11/02	10.211	11/03	9.700	11/04		24.084	
Systems Engineering	MP	FEDISM (GSA)	0.200	0.300	11/02	0.200	11/03			Continuing	Continuing	
Training Development											0.000)
Licenses											0.000	
Tooling											0.000	
GFE											0.000)
Award Fees			4.395			2.310	11/03				6.705	6.70
Subtotal Product Development			53.177	15.899		16.229		10.500		Continuing	Continuing	

Remarks:

Development Support											0.000	
Software Development											0.000	
Integrated Logistics Support	wx	SPAWAR, Phil. PA	1.116	1.575	11/02	1.773	11/03	1.906	11/04	Continuing	Continuing	
Integrated Logistics Support	wx	NAWCAD, Pax River, MD	0.679	1.900	11/02	1.200	11/03	1.500	11/04	Continuing	Continuing	
Technical Data											0.000	
Studies & Analyses											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			1.795	3.475		2.973	•	3.406		Continuing	Continuing	

Remarks:

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								DATE:				
Exhibit R-3 Cost Analysis (pag	je 2)									FEBRUARY 20	003	
APPROPRIATION/BUDGET ACTIV		PROGRAM I	ELEMENT			PROJECT NU		NAME				
RDT&E, N / BA-5			actical Comman	d System		E2213 Mission						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation	WX	OPTEVFOR, VA	0.272	0.70	0 11/02	0.386	11/03			Continuing	Continuing	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.272	0.70	0	0.386		0.00	0	Continuing	Continuing	
Contractor Engineering Support											0.000	
Government Engineering Support	WX	NAWCAD, Pax River, MD	1.016	0.97	5 11/02	1.822	11/03	1.08	5 11/04	Continuing	Continuing	
Program Management Support	RX	Various	1.370	0.30	0 11/02	0.770	11/03	0.55	6 11/04	Continuing	Continuing	
Travel	WX	NAWCAD, Pax River, MD	0.480	0.15	0 11/02	0.190	11/03	0.20	0 11/04		1.020	
Transportation											0.000	
Government Engineering Support		NAWCWD, Pt Mugu, CA	3.375	2.60	0 11/02	2.930	11/03	3.01	2 11/04		11.917	
Subtotal Management			6.241	4.02	5	5.712		4.85	3	Continuing	Continuing	
Remarks:												
Total Cost			61.485	24.09	9	25.300		18.75	9	Continuing	Continuing	
Remarks:												

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EXHIBIT R4, Schedule	Profile																	DATE	≣:	FE	BRU	ARY 2	2003									
APPROPRIATION/BUDGE																E					PROJ					ΛE						
RDT&E, N /	BA-5)							06042	31N I	actica	Comr	nand S	System							E2213	3 Nava	II Missi	on Pla	anning							
Fiscal Year		20	002			20	03			20	04			20	05			20	06	ı		20	07	ı		20	80	ı		200	09	T
	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 Milestones																																
JC-1 PROGRAM IBR TRR/ITCRR			\triangle			Δ		\triangle																								
H2E OTRR										\triangle																						
UPC RR UPC VALIDATION Delivery								Δ				Δ																				
Software Software Delivery PFPS Version 3.3 PFPS Version 4.0 PFPS Version 4.1 JC1 0.1 Delivery																																
Test & Evaluation Milestones JMPS Framework BETA TEST	JC1	0.1 BI	UILD		Stap. 6	release	Test	Mainter SoS Te																								
System Test UPC Integration																																
UPC VALIDATION																																
Production Milestons JMPS IOC											Δ																					
Deliveries																																

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: FE	BRUARY 2	003	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM	ELEMENT			PROJECT N	NUMBER AN	ID NAME		
RDT&BA-5	0604231N	Tactical Com	mand Syster	m	E2213 Naval Mission Planning				
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Software Specification Review (SSR)	1Q								
Preliminary Design Review (PDR)	2Q								
System Development	2Q-4Q	1Q-2Q							
Critical Design Review (CDR)	4Q	1Q							
Quality Design and Build		3Q-4Q							
Test Readiness Review (TRR)		2Q							
Developmental Testing (DT-IIA)		3Q-4Q	1Q						
Software Delivery 1XXSW	4Q	2Q	1Q						
Operational Evaluation (OT-IIC) (OPEVAL)			1Q-2Q						
IOC			3Q						
		_	_	_			_		

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UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		•	•		•		•	DATE:		•	•
									Febru	uary 2003	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	EMENT NUME	BER AND NAM	1E	PROJECT NU	MBER AND N	AME			
RDT&E, N / BA-5	0604231N - T	04231N - TACTICAL COMMAND SYSTEM X0486					S-M TACMOE	BILE			
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Program
Project Cost	63.702	1.540	1.437	1.317	1.229	1.264	1.497	1.523	1.552	Continuing	Continuing
RDT&E Articles Qty											0

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Global Command and Control System-Maritime (GCCS-M) Tactical/Mobile program provides evolutionary systems and equipment upgrades to support Maritime Sector Commanders with the capability to plan, direct and Control the tactical operations of Joint and Naval Expeditionary Forces and other assigned units within their respective area of responsibility. These operations include littoral, open ocean, and over land all-sensor surveillance, anti-surface warfare, over-the-horizon targeting, counter-drug operations, power projection, antisubmarine warfare, mining, search and rescue, and special operations.

The missions are supported by the Tactical Support Centers (TSCs) and the Mobile Operations Control Centers (MOCCs). Services provided include analysis and correlation of diverse sensor information; data management support; command decision aids; rapid data communication; mission planning and evaluation and dissemination of surveillance data and threat alerts to operational users ashore and afloat. All Tactical/Mobile systems are based on the GCCS-M architecture, which is Defense Information Infrastructure (DII) Common Operating Environment (COE) compliant.

TSCs provide C4l capability, air-ground, satellite and point-to-point communications systems; sensor analysis capabilities; avionics and weapons system interfaces and facilities equipment. MOCC is a scalable and mobile version of the TSC for operations from airfields that do not have TSC support. This program assures that existing TSCs and MOCCs are modernized to fulfill their operational requirements. TSC/MOCC will continue to support P-3C/S-3B aircraft updates to sensors and weapons systems, such as the Anti-Surface Warfare Improvement Program (AIP), as well as develop emergent, ground support capabilities for the Multi-Mission Aircraft (MMA) and High Altitude Endurance Unmanned Aerial Vehicle (HAE UAV).

GCCS-M Tac/Mobile R&D efforts are developed in agreement with and in mutual support of OPNAV N62 and N78. These efforts are required to provide support for the N78 platforms as related to the non-C2 aspects of the program.

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EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X0486 GCCS-M TACMOE	BILE
NDIGE, N / DAG	000423114 - TACTICAL COMMAND STSTEM	TACINOL	/ILL

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.175	0.000	0.000	0.000
RDT&E Articles Quantity				

Completed the rehosting of all functions to Windows NT including development of new hardware drivers and updates to stay current with the DII COE kernel and Navy initiative for portal and web enablement.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.220	0.331	0.228	0.201
RDT&E Articles Quantity				

Develop interface documentation based on joint and coalition SATCOM and line of site radios, cryptographic units and antenna technology. Ensure interoperability in a land, sea, air, and mobile environment. Investigate and initiate development of Digital Modular Radio (DMR) interface requirements between other TSC/MOCC elements. Design and test new interfaces between UHF SATCOM Digital Modular Radio (DMR) (as replacement for obsolete VICS radio) and legacy system. Continue development activities necessary to stay current with joint and coalition SATCOM and line of site radios, cryptographic units, antenna technology and the USN/DoD satellite replacement programs. Ensure interoperability in a land, sea, air and mobile environment. Conduct testing of air platform support systems and data exchange devices for incorporation into baseline systems for deployment.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.389	0.454	0.465	0.460
RDT&E Articles Quantity				

Improve the acoustic Fast Time Analysis System (FTAS) to increase reliability of the obsolete proprietary hardware, by incorporating Commercial Off The Shelf (COTS) technology, and by incorporating new functionality in support of emerging aircraft acoustic replay capabilities. Develop a detailed set of requirements for follow-on system.

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Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 12 of 90)

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EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X0486 GCCS-M TACMOE	BILE
NDIGE, N / DAG	000423114 - TACTICAL COMMAND STSTEM	TACINOL	/ILL

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.581	0.374	0.430	0.412
RDT&E Articles Quantity				

Develop new capabilities to support emerging aircraft weapons and non-acoustic sensors on P-3C ASUW Improvement Program (AIP), P-3C Baseline Modification Upgrade Program (BMUP), and other derivative aircraft. Analyze Multi-mission Maritime Aircraft (MMA) aircraft specifications and concept documents for impact on TSC and MOCC systems. Develop ATOS interfaces for emerging aircraft data transport devices. Perform testing on new software and hardware components. Continue development of aircraft status to a web-enabled segment and combined with Aircraft Brief to form a single segment.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.175	0.278	0.194	0.156
RDT&E Articles Quantity				

Analyze TSC/MOCC requirements for advanced data links such as LINK-16, Common Data Link (CDL) and other high bandwidth data transmission paths. Migrate two-way LINK-11 to new platform. Develop new ground workstation software for new and upgraded aircraft sensors. Continue to develop interfaces for emerging aircraft data transport devices. Perform testing on new software and hardware components. Develop and document ground support systems and associated interfaces to support various data exchange devices for air platforms. Develop new ground workstation software for new and upgraded aircraft sensors. Continue to develop interfaces for emerging aircraft data transport devices. Perform testing on new software and hardware components.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE:	
							February 2003
PPROPRIATION/BUDGET ACTIVITY	PROGRAM EL	EMENT NUMBER	AND NAME		PROJECT NUMB	ER AND NAME	
RDT&E, N / BA-5	0604231N - TA	ACTICAL COMMAN	ND SYSTEM		X0486 GCCS-M	TACMOBILE	
(U) C. PROGRAM CHANGE SUMMARY:							
(U) Funding:		FY 2002	FY 2003	FY 2004	FY 2005		
Previous President's Budget:		1.627	1.470	11 2004	1 1 2000		
Current BES/President's Budget		1.540	1.437	1.317	1.229		
Total Adjustments		-0.087	-0.033	0.000	0.000		
Summary of Adjustments							
Section 8123: Management Reform	Initiative	-0.014					
FY2002 SBIR		-0.002					
Sec. 313, PL 107-206: Revised Econ Ass	sump.	-0.003					
Sec 8135 Economic Assumptions	- Carrier	-0.004	-0.008				
Misc Department Adjustments		-0.064	-0.016				
Sec 8100 Business Process Reform		0.00.	-0.006				
Sec 8109 IT Cost Growth			-0.003				
Subtotal		-0.087	-0.033				
(U) Schedule:							
N/A.							
(U) Technical:							
• •							
N/A.							
		R-1 SHOPP	ING LIST - H	tem No	96		

CLASSIFICATION:

(HIBIT R-2a, RDT&E Project Justification									DATE:			
									Februa	ry 2003		
PPROPRIATION/BUDGET ACTIVITY PROGR					ИE	PROJECT NU	JMBER AND N	AME				
BA-5		0604231N - TACTICAL COMMAND SYSTEM X0486 GCCS-M TACMOBI					BILE					
M FUNDING SUMMARY:												
W TONDING COMMAND	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To <u>Complete</u>	Total <u>Cost</u>		
€ (OPN - BLI 2246)	5.892	5.002	6.516	5.446	5.633	5.643	5.747	5.853	CONT.	CONT.		
E (OPN - BLI 2608)	10.326	12.698	10.530	11.020	12.446	6.034	6.070	13.196	CONT.	CONT.		
.I	TIVITY BA-5 M FUNDING SUMMARY:	TIVITY BA-5 M FUNDING SUMMARY: FY 2002 E (OPN - BLI 2246) 5.892	TIVITY PROGRAM E BA-5 0604231N - 7 M FUNDING SUMMARY: FY 2002 FY 2003 E (OPN - BLI 2246) 5.892 5.002	TIVITY PROGRAM ELEMENT NUM BA-5 0604231N - TACTICAL COM M FUNDING SUMMARY: FY 2002 FY 2003 FY 2004 E (OPN - BLI 2246) 5.892 5.002 6.516	TIVITY PROGRAM ELEMENT NUMBER AND NAM BA-5 0604231N - TACTICAL COMMAND SYST M FUNDING SUMMARY: FY 2002 FY 2003 FY 2004 FY 2005 E (OPN - BLI 2246) 5.892 5.002 6.516 5.446	TIVITY PROGRAM ELEMENT NUMBER AND NAME 0604231N - TACTICAL COMMAND SYSTEM M FUNDING SUMMARY: FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 E (OPN - BLI 2246) 5.892 5.002 6.516 5.446 5.633	TIVITY PROGRAM ELEMENT NUMBER AND NAME PROJECT NU BA-5 0604231N - TACTICAL COMMAND SYSTEM X0486 GCC: M FUNDING SUMMARY: FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 E (OPN - BLI 2246) 5.892 5.002 6.516 5.446 5.633 5.643	TIVITY PROGRAM ELEMENT NUMBER AND NAME PROJECT NUMBER AND N BA-5 0604231N - TACTICAL COMMAND SYSTEM X0486 GCCS-M TACMOR M FUNDING SUMMARY: FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 E (OPN - BLI 2246) 5.892 5.002 6.516 5.446 5.633 5.643 5.747	TIVITY PROGRAM ELEMENT NUMBER AND NAME O604231N - TACTICAL COMMAND SYSTEM X0486 GCCS-M TACMOBILE M FUNDING SUMMARY: FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 E (OPN - BLI 2246) 5.892 5.002 6.516 5.446 5.633 5.643 5.747 5.853	February February		

(U) E. ACQUISITION STRATEGY:

N/A

R-1 SHOPPING LIST - Item No. 96

CLASSIFICATION:

				•	•	•		•	DATE:				•	
Exhibit R-3 Cost Analysis (pa	age 1)								February 2003					
APPROPRIATION/BUDGET ACTI	VITY		PROGRAM E	ELEMENT			PROJECT NU	JMBER AND N	NAME					
RDT&E, N / BA-5			0604231N -	TACTICAL CO	MMAND SYS	TEM	X0486 GCCS-M TACMOBILE							
Cost Categories	Contract	Performing		Total		FY 03		FY 04		FY 05				
	Method	Activity &		PY s	FY 03	Award	FY 04	Award	FY 05	Award	Cost to	Total	Target Value	
	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract	
Primary Hardware Development												0.000)	
Ancillary Hardware Development												0.000	D	
Aircraft Integration												0.000	D	
Ship Integration												0.000)	
Ship Suitability												0.000)	
Systems Engineering	VARIOUS	VARIOUS		18.72	9 0.22	21 VARIOUS	0.380	VARIOUS	0.340	VARIOUS	0.00	0 19.670)	
Training Development												0.000	D	
Licenses												0.000	D	
Tooling												0.000	D	
GFE												0.000)	
Award Fees												0.000	D	
Subtotal Product Development				18.72	9 0.22	21	0.380		0.340		0.00	0 19.670	D	
Remarks:														
D												0.000	1	

Development Support											0.000	
Software Development	VARIOUS	VARIOUS	33.255	0.844	VARIOUS	0.650	VARIOUS	0.629	VARIOUS	0.000	35.378	
Integrated Logistics Support											0.000	
Configuration Management											0.000	
Technical Data											0.000	
Studies & Analyses											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Support			33.255	0.844		0.650		0.629		0.000	35.378	

Remarks:

CLASSIFICATION:

										DATE:				
Exhibit R-3 Cost Analysis (pag	e 2)											February 200	3	
APPROPRIATION/BUDGET ACTIV	ITY		PROGRAM ELEI	MENT					JMBER AND N					
RDT&E, N / BA-??			0604231N - TAC	CTICAL CO	MMAND S'	/STE	M	X0486 GCC	S-M TACMO					
Cost Categories	Contract	Performing		tal	E) / 00		FY 03	E) (0 4	FY 04		FY 05	0 11		T ()/ 1
	Method & Type	Activity & Location	P) Co		FY 03 Cost		Award Date	FY 04 Cost	Award Date		Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	и туро	Location		, , , , , , , , , , , , , , , , , , , 	0001		Dato	0001	Date	0001	Dato	Complete	0.000	or contract
Operational Test & Evaluation	WR	OPTEVFOR		3.084	0	.070	VARIOUS	0.071	VARIOUS	0.060	VARIOUS	0.000	3.285	
Live Fire Test & Evaluation													0.000	
Test Assets													0.000	
Tooling													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal T&E				3.084	C	.070		0.071		0.060		0.000	3.285	
Contractor Engineering Support													0.000	
Government Engineering Support													0.000	
Program Management Support	VARIOUS	VARIOUS		10.213	(.302	VARIOUS	0.216	VARIOUS	0.200	VARIOUS	0.000	10.931	
Travel													0.000	
Transportation													0.000	
SBIR Assessment													0.000	
Subtotal Management				10.213	C	.302		0.216	;	0.200		0.000	10.931	
Remarks:														
Total Cost				65.281	1	.437		1.317		1.229		0.000	69.264	
Remarks:														

CLASSIFICATION:

EXHIBIT R4, Schedule																									DATE		F	ebrua	ary 20	03		
APPROPRIATION/BUDGET														R AND							PROJ											
RDT&E, N /	BA-5)							06042	:31N -	TACI	ICAL (COMM I	AND S	YSIE	M					X048	6 GC	CS-IVI	TACI	NOBIL	.E						
Fiscal Year		20	02	П		20	03			20	04			200)5			20	06			20	07			20	800			200	09	1
	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 Milestones											4.X M	LESTO	NE "C"						5.X MI	LESTO	DNE "C'						6.X M	ILESTO) DNE "C'			
Prototype Phase																																
Development																																
Delivery																																
Software 4.X SW Delivery								VER 4	l .X DEL	IVERY								VER 5	I .X DEL	I IVERY					VER 6	S.X DEI	 LIVERY 					
Test & Evaluation Milestones																																
Development Test Operational Test										VER 4	.х от								VER 5	5.X DT/	 ОТ 					VER (6.X DT/	 ОТ 				
Production Milestones																																
Deliveries																																

^{*} Not required for Budget Activities 1, 2, 3, and 6

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE:	ebruary 20)3		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT			PROJECT NU	MBER AND NA	AME			
RDT&BA-5	0604231N - T	ACTICAL CON	MAND SYSTE	ΞM	X0486 GCCS	36 GCCS-M TACMOBILE				
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
Software Delivery 4.X			Q2							
Operational Test 4.X			Q3							
Milestone C 4.X			Q4							
Software Delivery 5.X Operational Test 5.X					Q2					
Operational Test 5.X					Q3					
Milestone C 5.X					Q4					
Software Delivery 6.X							Q2			
Operational Test 6.X							Q3			
Milestone C 6.X							Q4			
				ļ						
			<u> </u>							

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
									Febru	ıary 2003	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	EMENT NUME	BER AND NAM	1E	PROJECT NU	MBER AND N	AME			
RDT&E, N / BA-5	0604231N - T	ACTICAL CON	MAND SYSTE	M		X0709 GCCS	S-M MARITIN	IE APPLICAT	IONS		
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Program
Project Cost	54.418	6.801	5.825	7.468	6.099	7.942	8.571	8.732	8.895	Continuing	Continuing
RDT&E Articles Qty											0

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The GCCS-M system is the component of GCCS used in the afloat, ashore and tactical/mobile maritime environments. GCCS-M meets the requirements of the tactical commander for a near real-time, fused common tactical picture with integrated intelligence services and databases. GCCS-M supports the Command, Control, Communication, Computers and Intelligence (C4I) mission requirements of the Chief of Naval Operations (CNO), Fleet Commanders in Chief (CINC), Numbered Fleet Commanders (NFC), Officer in Tactical Command/Composite Warfare Commander (OTC/CWC), Type Commanders (TYCOM), Commander Submarine Operations Authority (COMSUBOPAUTH), Commander Task Force (CTF), Commander Amphibious Task Force (CATF), Commander Landing Force (CLF), Ship's Commanding Officer/Tactical Action Officer (CO/TAO), and Joint Task Force (JTF) Commanders, as well as other functional commanders such as the Command and Control projects in order to support joint task force and Navy afloat requirements. Efforts include design, integration, and test of Tactical Decision Aids (TDAs), Navy Status of Forces (NSOF), and integrate on GCCS-M baselines with weapons systems and Combat Direction Systems. These efforts will provide the battle group/force commanders with the information needed to enhance their warfighting capabilities. GCCS-M is also continuing a transition to Commercial Off The Shelf (COTS) hardware and software as part of the current GCCS-M initiative to capitalize on the latest Web/PC industry/commercial technology. GCCS-M is a key system currently being used to support real world operations afloat, ashore, and with tactical/mobile commanders.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	NAME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X0709 GCCS-M MARITIN	ME APPLICATIONS

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.595	0.000	0.000	0.000
RDT&E Articles Quantity				

Architecture: Developed and implemented modernized architectures, including web-centric and N-Tier. Continued to develop Conops/procedures and interfaces to support joint amphibious warfare for embarked/disembarked Marine Corps elements. Tested and integrated GCCS-M GOTS products into PC COTS installation and runtime environment. Performed testing and integration with latest commercial products to ensure complete interoperability and data level integration. Performed engineering to provide fleet recommendations on compatible hardware and software configurations/modifications to current baselines.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	3.669	3.422	3.534	3.088
RDT&E Articles Quantity				

Employment Scheduling / WSM / Readiness: Develop and update employment scheduling capabilities in support of Fleet requirements. Develop employment scheduling capability on DII/COE compliant PC platforms. Integrate WebSked (formerly known as VIPER) with latest versions of COTS/MS Office products. Incorporate emerging requirements validated and prioritized by WebSked operational community, which may include fuel management, notional templates, multiple proposals and deployment transit planning. Provide capability for employment scheduling data to be linked to readiness, logistics, intelligence, and track databases in such a way that operators can obtain a comprehensive understanding of all relevant data to be used in planning and command & control scenarios. Incorporate WSM requirements identified by CRWG process. Research Fleet requirements for viewing and archiving readiness data. Link readiness data with track, intelligence, and imagery data to provide a comprehensive understanding of a unit's operational status. Continue to integrate GCCS (Joint) segments into GCCS-M. Provide web-based, graphical entry of Readiness data, and develop web-based solutions for viewing archived readiness data in Fleet-specified formats. Incorporate emerging requirements identified and prioritized during CRWG requirements process.

In FY04, JPN / TADILS / BROADCASTS: Develop and integrate capabilities to distribute and associate readiness, employment scheduling, and nodal analysis data with track data using mechanisms provided by the DII COE and the Maritime extensions.

R-1 SHOPPING LIST - Item No. 96

Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 21 of 90)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X0709 GCCS-M MARITIN	ME APPLICATIONS

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.587	0.420	0.688	0.526
RDT&E Articles Quantity				

Spectral and Environmental Analysis: Develop capability for automatic interface and update with SPEDS/ICAP Integrated Product (SIIP) and Meteorological and Oceanography (METOC). Continue development of Tactical Decision Aids (TDAs) and COTS tactical analysis tools for incorporation into General Service (GENSER) and Sensitive Compartmented Information (SCI) Software for analyst workstations, Electronic Warfare Command Stations (EWCS), and supporting the Command and Control Warfare Center (C2WC). Incorporate new functional capability prioritized by Fleet users, including web-based applications as appropriate.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.100	1.284	2.102	1.609
RDT&E Articles Quantity				

Aircraft Mission Planning / TACMOBILE: Provide C4I research and product improvement for P-3 mission and other avionics platforms. Provide enhanced capability in support of P-3 aircraft P3I and follow-on initiatives, including interface changes. Provide developmental support to P-3 Tactical Support Center operations by satisfying emerging technology requirements initiated by Fleet operators, developing interfaces to aircraft systems, and increasing the interoperability between P-3 support applications, including Aircraft Status, Aircrew Brief, Generic Message Replay & Reconstruction, Pre/Post-Flight ESM, P-3 Tactical Data Insertion, and Inverse Synthetic Aperture Radar (ISAR) video analysis. Provide access to applications through web-based interfaces. Provide interfaces to other aircraft mission planning systems, such as TAMPS or JMPS.

In FY04, provide web-enabling of mission support applications and migration of functionality to maintain COE currency.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.850	0.699	1.144	0.876
RDT&E Articles Quantity				

Testing: Continue to perform systems testing on the integrated components of the Naval C4I architecture. Modernize test facilities to maintain capability to test newly developed software and architectures, including web-based products. Support the proof of concept testing in exercise environments of emerging technology in the C4I arena.

R-1 SHOPPING LIST - Item No. 96

Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 22 of 90)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE:		
								February 2003	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMI	ENT NUMBER	AND NAME	F	PROJECT NUM	BER AND N	AME		
RDT&E, N / BA-5	0604231N - TACT	TCAL COMMAN	ND SYSTEM		K0709 GCCS-I	M MARITIM	ME APPLICATIONS		
(U) C. PROGRAM CHANGE SUMMARY:									
(I) For the re		FV 0000	EV 0000	EV 0004	EV 0005				
(U) Funding: Previous President's Budget:		FY 2002 7.758	FY 2003 5.956	FY 2004	FY 2005				
Current BES/President's Budget		6.801	5.825	7.468	6.099				
Total Adjustments	_	-0.957	-0.131	0.000	0.000				
Summary of Adjustments									
Realignment for EKMS Tier 1		-0.500							
Section 8123: Management Reform Init	iative	-0.064							
FY2002 SBIR (dtd 5-15-02)		-0.059							
Misc Department Adjustments		-0.146	-0.063						
BTR for Joint Mission Planning Sys (JMI		-0.153							
Sec. 313, PL 107-206: Revised Econom	ic Assumption	-0.016							
Sec 8100 Business Process Reform			-0.024						
Sec 8135 Economic Assumptions		-0.019	-0.033						
Sec 8109 IT Cost Growth			-0.011						
Subtotal		-0.957	-0.131						
(U) Schedule:									
N/A.									
(U) Technical:									
N/A.									
		D 4 CHODD			20				

CLASSIFICATION:

OPRIATION/BUDGE	T ACTIVITY		PROGRAM EI	LEMENT NUM	BER AND NAN	ИΕ	PROJECT NU	MBER AND N	AME	i ebi u	ary 2003
&E, N /	BA-5		0604231N - T	ACTICAL CON	MAND SYSTE	ΞM	X0709 GCCS	S-M MARITIM	1E APPLICA	TIONS	
(U) D. OTHER PRO	GRAM FUNDING SUMN	MARY:								To	Total
Line Item No. & Na	<u>ame</u>	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	<u>Complete</u>	<u>Cost</u>
GCCS-M (OPN - BLI 2	2608)	59.304	52.996	52.398	63.418	107.101	63.753	85.923	106.005	Continuing	Continuing
(U) E. ACQUISITION	STRATEGY:										
N/A											

CLASSIFICATION:

									DATE:				
Exhibit R-3 Cost Analysis (pa											February 200)3	
APPROPRIATION/BUDGET ACTIV	VITY		PROGRAM E	LEMENT				JMBER AND N					
RDT&E, N / BA-5			0604231N -	TACTICAL CO	MMAND SYST	EM	X0709 GCC		ME APPLICAT				
Cost Categories	Contract	Performing		Total		FY 03	-	FY 04		FY 05			
	Method & Type	Activity & Location		PY s Cost	FY 03 Cost	Award Date	FY 04 Cost	Award Date	FY 05 Cost	Award Date	Cost to Complete	Total Cost	Target Value of Contract
Drive and Handware Development	& Type	Location		Cost	Cosi	Date	Cost	Date	Cost	Date	Complete	+	1
Primary Hardware Development		+										0.000	
Ancillary Hardware Development		+										0.000	
Aircraft Integration												0.000	
Ship Integration		+										0.000	
Ship Suitability	VADIOU	CVARIOUS		44.000	0.400	VARIOUS	0.070	VARIOUS	0.500	VADIOLIC	0.000		
Systems Engineering	VARIOU	SVARIOUS		11.623	0.466	VARIOUS	0.673	VARIOUS	0.500	VARIOUS	0.000	13.262 0.000	
Training Development		+										0.000	
Licenses							+					0.000	1
Tooling GFE		+										0.000	1
												0.000	
Award Fees Subtotal Product Development		+		11.623	0.466		0.673		0.500		0.000		
Development Support												0.000)
Software Development	VARIOU	SVARIOUS		40.301	4.868	VARIOUS	6.086	VARIOUS	5.072	VARIOUS	0.000		
Integrated Logistics Support												0.000	,
Configuration Management												0.000	,
Technical Data												0.000	,
Studies & Analyses												0.000	,
GFE												0.000	,
Award Fees												0.000	
Subtotal Support				40.301	4.868		6.086	3	5.072	2	0.000	56.327	,
Remarks:													

CLASSIFICATION:

									DATE:				
Exhibit R-3 Cost Analysis (pa	ge 2)										February 20	03	
APPROPRIATION/BUDGET ACTIV			PROGRAM EL	EMENT			PROJECT NU	JMBER AND N	NAME		•		
RDT&E, N / BA-5			0604231N - T	ACTICAL CO	MMAND SYST				ME APPLICAT				
Cost Categories	Contract Method & Type	Performing Activity & Location		Total PY s Cost	FY 03 Cost	FY 03 Award Date		FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												0.000)
Operational Test & Evaluation	WR	OPTEVFOR		1.090	0.000		0.000		0.000		0.000	1.090)
Live Fire Test & Evaluation												0.000)
Test Assets												0.000)
Tooling												0.000)
GFE												0.000)
Award Fees												0.000)
Subtotal T&E				1.090	0.000		0.000		0.000		0.000	1.090)
	 	T	T		1	1	T	<u> </u>	1	<u> </u>	T	T	,
Contractor Engineering Support							1					0.000	
Government Engineering Support							 				1	0.000	
Program Management Support	VARIOUS	VARIOUS		8.386	0.491	VARIOUS	0.709	VARIOUS	0.527	VARIOUS	0.000		
Travel							+					0.000	
Transportation							+					0.000	
SBIR Assessment				0.200	0.404		0.700		0.503		0.000		-
Subtotal Management Remarks:				8.386	0.491		0.709		0.527		0.000	10.113	1
Total Cost				61.400	5.825		7.468		6.099		0.000	80.792	2
Remarks:													

CLASSIFICATION:

EXHIBIT R4, Schedul																											DATI		F	ebru	ary 20	003		
APPROPRIATION/BUDGE																R AND							PROJ								_			
RDT&E, N /	BA-	5								06	0423	1N -	TACT	TCAL	COMN T	IAND S	SYSTE	М					X070	9 GC	CS-M	MAR	ITIME	APPI	LICAT	IONS	1			
Fiscal Year		1	200	2			2	003	ı		ı	200	04	1		20	05	ı		20	006	T		20	07	1		20	800	1		20	09	
	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 Milestones													4.X M	ILEST	ONE "C						5.X M	ILESTO	ONE "C"						6.X M	ILESTO	ONE "C	л		
Prototype Phase																																		
Development																																		
Delivery																																		
Software 4.X SW Delivery									VER	4.X I	DELIV	ERY								VER 5	S.X DEI	 IVERY 	,				VER	6.X DE	LIVERY	,				
Test & Evaluation Milestones																																		
Development Test																																		
Operational Test											V	ER 4	х от								VER S	S.X DT/	ОТ					VER	6.X DT/	OT				
Production Milestones																																		
Deliveries																																		

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE:	ebruary 200)3
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT			PROJECT NU	MBER AND NA	AME	
RDT&BA-5	0604231N - T	ACTICAL CON	MAND SYSTE	EM	X0709 GCC	S-M MARITIM	E APPLICAT	ONS
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Software Delivery 4.X			Q2					
Operational Test 4.X			Q3					
Milestone C 4.X			Q4					
Software Delivery 5.X Operational Test 5.X					Q2			
Operational Test 5.X Milestone C 5.X					Q3 Q4			
Software Delivery 6.X					1		Q2	
Operational Test 6.X							Q3	
Milestone C 6.X							Q4	
							_	

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
									Febru	uary 2003	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	EMENT NUME	BER AND NAM	1E	PROJECT NU	IMBER AND N	AME			
RDT&E, N / BA-5	0604231N - T	ACTICAL COM	MAND SYSTE	M		X2009 TRUS	STED INFORM	MATION SYS	TEMS		
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Program
Project Cost	53.191	3.815	2.906	2.146	1.492	2.147	1.836	1.659	1.482	Continuing	Continuing
RDT&E Articles Qty											0

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) Trusted Information Systems (TIS) is a combination of the Ocean Surveillance Information System (OSIS) Evolutionary Development (OED) system and the Radiant Mercury (RM) system incorporating multi-level security (MLS) web technologies. TIS provides the core on-line, automated, near-real time, multi-level secure, information analysis, dissemination, and receipt capabilities that enable Unified Commanders-in-Chief and Joint Task Force Commanders afloat and ashore to disseminate and receive critical operational and intelligence information with own forces and Coalition/Allied forces via tactical and record communications circuits. OED is a designated migration system providing for the analysis of intelligence information from multiple sources to produce a comprehensive report of foreign forces and potential hostile activity. The system is required to be able to generate multiple, automated near-real-time event-by-event (NRT EBE) data streams at various classification/releasability levels, tailorable to unique customer requirements and capable of being transmitted over multiple communications paths (including DSNET) simultaneously. In addition, it is required to provide near-real-time (NRT) all-source fusion, correlation and analysis tools (including robust graphics presentation and geospatial analysis capabilities), directly feeding automated reporting capabilities. OED provides positional data and operational intelligence to commanders at all levels. The data derived from this process is disseminated as an Operation Intelligence (OPINTEL) product to the operating forces for tactical threat warnings, decision making support, and support of Over-the-Horizon-Targeting. Radiant Mercury is a tool for the automated sanitizing, downgrading, and transliteration of formation for metwork-centric warfare aboard afloat platforms, Radiant Mercury helps ensure critical Indications and Warning intelligence is provided quickly to operational decision-makers. This capability to move all-source intelligence-derived track infor

(U) TIS builds upon the foundation set by JMCIS OED project which uses the Joint Logistics Commander's Guidance of March 1987 on Evolutionary Acquisition (EA) as the strategy for future software development which includes a plan for incremental achievement of desired capability building on the core system provided by OBU Phases I and II. TIS is built on the foundation of JMCIS OED Phase III EA strategy, which provides a mechanism for adding future capabilities including the incorporation of proven fleet initiated prototypes.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NA	AME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X2009 TRUSTED INFORM	MATION SYSTEMS

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.495	1.441	0.786	0.806
RDT&E Articles Quantity				

Continue to implement, accredit and deploy MLS changes needed to support MLS email and Network Guard technology. Continue to develop entrusted client architecture using single level clients to evolve a Multi-Security design. Continue to develop entrusted client architecture using single level clients to evolve a Multi-Security Level design in conjunction with network guard, MLS email, and guard/sanitizer development.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.366	0.240	0.092	0.091
RDT&E Articles Quantity				

Continue to update message encoders, decoders and correlation algorithms as required to meet formatted message standards and changes in sensor data feeds.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.134	0.651	0.303	0.288
RDT&E Articles Quantity				

Continue to automate real time Indications and Warning/Situation Assessment capability to detect and auto alert users concerning movement patterns, complex threat conditions and other pre-defined spatial and data detection events. Continue to develop and implement improved tactical decision aids, and system alerting capabilities.

R-1 SHOPPING LIST - Item No. 96

Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 30 of 90)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X2009 TRUSTED INFORI	MATION SYSTEMS

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.489	0.334	0.202	0.199
RDT&E Articles Quantity				

Continue to port MLS Capability to DII COE based standards.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.331	0.240	0.111	0.108
RDT&E Articles Quantity				

Continue to develop system interface capabilities as required for current releases for record communications systems with in an accreditable MLS baseline.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.654	0.000
RDT&E Articles Quantity				

Develop multi-level secure encryption path within shore-to-ship network for direct connectivity to allied networks. Enable Counter Terrorism (CT) data in afloat message handling systems and COP database. Enhance CT data mining and alerting tools at JICs.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						[DATE:		
								February 2003	
	ROGRAM ELEMEN	NT NUMBER	AND NAME		ROJECT NUMB				
RDT&E, N / BA-5	04231N - TACTIO	CAL COMMAN	ND SYSTEM	X	2009 TRUSTE	D INFORM	IATION SYSTEM	S	
(U) C. PROGRAM CHANGE SUMMARY:									
(U) Funding: Previous President's Budget: Current BES/President's Budget Total Adjustments		FY 2002 3.939 3.815 -0.124	FY 2003 2.973 2.906 -0.067	FY 2004 2.146 0.000	FY 2005 1.492 0.000				
Summary of Adjustments Section 8123: Management Reform Initia Sec. 313, PL 107-206: Revised Economic Sec 8135 Economic Assumptions Miscellaneous Department Adjustments Sec 8100 Business Process Reform Sec 8109 IT Cost Growth Sec 8029, PL 107-248 FY03 FFRDC redu	Assumptions	-0.035 -0.008 -0.011 -0.070	-0.017 -0.031 -0.012 -0.005 -0.002						
Subtotal		-0.124	-0.067						
(U) Schedule: N/A.									
(U) Technical: N/A.									
	Б	1 CHODDI	NC LIST I	om No O	c				

CLASSIFICATION:

OPRIATION/BUDGE	T ACTIVITY		PROGRAM EI	LEMENT NUM	BER AND NAN	ИΕ	MBER AND N	AME	ary 2003								
&E, N /	BA-5		0604231N - T	ACTICAL COM	MMAND SYSTE	TED INFOR	FORMATION SYSTEMS										
(U) D. OTHER PRO	GRAM FUNDING SUMM	ARY:								To	Total						
Line Item No. & Na	<u>ame</u>	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Complete	Cost						
GCCS-M TIS (OPN	- BLI 2608)	1.953	1.504	2.663	2.528	3.483	2.269	2.315	4.362	Continuing	Continuing						
										J	Ç						
(I) F ACQUISITION	CTD ATE OV																
(U) E. ACQUISITION	SIRAIEGY:																
N/A																	

CLASSIFICATION:

									DATE:				
Exhibit R-3 Cost Analysis (pa	ge 1)										February 200	03	
APPROPRIATION/BUDGET ACTI	VITY		PROGRAM E	LEMENT			PROJECT NU	JMBER AND N	IAME				
RDT&E, N / BA-5			0604231N -	TACTICAL CO	MMAND SYSTI		X2009 TRUS	STED INFOR	MATION SYS	TEMS			
Cost Categories	Contract Method & Type	Performing Activity & Location		Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	71										,	0.000	
Ancillary Hardware Development												0.000	
Aircraft Integration												0.000	
Ship Integration												0.000	
Ship Suitability												0.000	
Systems Engineering	VARIOUS	VARIOUS		9.077	0.253	VARIOUS	0.212	VARIOUS	0.152	VARIOUS	0.000		
Training Development												0.000	
Licenses												0.000	
Tooling												0.000	
GFE												0.000	
Award Fees												0.000	
Subtotal Product Development				9.077	0.253		0.212	2	0.152		0.000	9.694	
Development Support												0.000	
Software Development	VARIOUS	VARIOUS		45.304	2.598	VARIOUS	1.888	VARIOUS	1.308	VARIOUS	0.000	51.098	
Integrated Logistics Support												0.000	
Configuration Management												0.000)
Technical Data												0.000)
Studies & Analyses												0.000)
GFE												0.000)
Award Fees												0.000)
Subtotal Support				45.304	2.598		1.888	3	1.308		0.000	51.098	
Remarks:													

CLASSIFICATION:

								DATE:				
Exhibit R-3 Cost Analysis (pag	e 2)									February 200	3	
APPROPRIATION/BUDGET ACTIV	İTY		PROGRAM ELEMENT			PROJECT NU				•		
RDT&E, N / BA-5			0604231N - TACTICAL COM					MATION SYS				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03	FY 03 Award Date	FY 04	FY 04 Award Date	FY 05	FY 05 Award Date	Cost to Complete		Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation	PD	OPTEVFOR	0.630	0.000		0.000		0.000		0.000	0.630	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			0.630	0.000		0.000		0.000		0.000	0.630	
Contractor Engineering Support	T										0.000	
Contractor Engineering Support Government Engineering Support											0.000	
Program Management Support	VARIOUS	VARIOUS	2.084	0.055	VARIOUS	0.046	VARIOUS	0.032	VARIOUS	0.000	2.217	
Travel	VARIOUS	VARIOUS	2.004	0.055	VARIOUS	0.040	VARIOUS	0.032	VARIOUS	0.000	0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			2.084	0.055		0.046		0.032		0.000	2.217	
Remarks:												
Total Cost			57.095	2.906		2.146		1.492		0.000	63.639	
Remarks:												

CLASSIFICATION:

EXHIBIT R4, Schedul																										DATI		F	ebrua	ary 20	003		
APPROPRIATION/BUDG																			PROJ														
RDT&E, N /	BA-	<u> </u>							0	0604231N - TACTICAL COMMAND SYSTEM X2009 TRUSTED INF											ORM/	ATION	SYS	TEMS	1								
2002 Fiscal Year		:	2003				20	04			200	05			200	06	1		20	07			20	800	1		200	09					
	1	2	3	4		I	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 Milestones												MILES	STONE	"C" - \	ERSIOI	N "5"																	
Prototype Phase																																	
Development																																	
Delivery																																	
Software 5.X SW Delivery																																	
Test & Evaluation Milestones											OT - V	/ERSIC	ON "5"																				
Development Test											•																				i l		
Operational Test																																	
Production Milestones																																	
Deliveries																																	

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE:		00
						ı	ebruary 20	03
APPROPRIATION/BUDGET ACTIVITY				PROJECT NU				
RDT&BA-5	0604231N - T	ACTICAL COM	IMAND SYSTE	ΞM	X2009 TRUS	STED INFORM	MATION SYS	TEMS
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Software Delivery 5.X Operational Test 5.X			Q1 Q2					
Milestone C 5.X			Q2 Q3					
Milestorie C 5.A			<u> </u>					
					<u> </u>			
					1			

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
									Febru	uary 2003	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	EMENT NUME	BER AND NAM	1E	PROJECT NU	IMBER AND N	AME			
RDT&E, N / BA-5	0604231N - T	0604231N - TACTICAL COMMAND SYSTEM X0521 GCCS-M INTELLIG			SENCE APPL	ICATIONS					
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Program
Project Cost	37.798	6.400	3.033	2.601	2.986	3.306	3.991	4.066	4.142	Continuing	Continuing
RDT&E Articles Qty											0

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

GCCS-M Intelligence Applications are an integrated set of Defense Information Infrastructure Common Operating Environment (DII COE) compliant segments designed to support tactical intelligence processing and reside on the Intelligence Shared Data Server (ISDS). The ISDS is the central database server for GCCS-M Afloat, the Command and Control Warfare Commander (C2WC) and tactical mission planning systems. Development of GCCS-M Intelligence applications for this data distribution includes dynamic updates of Naval Intelligence Database (NID) and military integration with digital map and imagery systems. The current GCCS-M Intel Apps effort includes providing intelligence data distribution to multiple shipboard warfighters via an analog video distribution system. Furthermore, the GCCS-M Intel Apps effort will enable the GCCS-M Afloat architecture to meet downgrading and releasability requirements. GCCS-M imagery applications provide for archiving, viewing and mensuration of still and video images. This effort is also continuing the transition to Commercial Off The Shelf (COTS) hardware and software as part of the current GCCS-M initiative to capitalize on the latest Web/PC industry/commercial technology. The GCCS-M Intel Apps effort is part of the Tactical Intelligence and Related Activities (TIARA) program, managed by the Secretary of Defense through the Assistant Secretary of Defense for C4I.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X0521 GCCS-M INTELLIG	GENCE APPLICATIONS

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.250	0.000	0.000	0.000
RDT&E Articles Quantity				

Tactical Combat and Weapons Systems Support: Provided increased functionality and expanded the performance envelope in the Intelligence and Imagery applications to support real-time combat systems interfaces and multiple weapons systems planning and execution.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.609	0.000	0.000	0.000
RDT&E Articles Quantity				

JPN / TADIL / BROADCASTS: Enhanced capability to attach tactically relevant intelligence data to near real-time tracks that are distributed via the Common Operational Picture pre requirements generated through the CRWG process. Enhanced Intelligence and Imagery subscription methodologies to support disadvantaged users. Incorporated COTS Internet tools to enable users to use IT-21 infrastructure to obtain a subset of finished intelligence data and services via the web. Provided the capability to distribute intelligence data cross-referenced to imagery that enabled users to view and edit OOB data, characteristics and performance data, and imagery over the WAN. Distributed those changes through the COP to joint intelligence centers. Integrated the Special Intelligence (SI) correlation functions into the core of DII COE, enabling closer integration with the other correlation functions that currently exist in the Joint

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.001	0.000	0.000	0.000
RDT&E Articles Quantity				

Testing and Documentation/Curriculum Development: Performed systems testing on the integrated components of the GCCS-M Intel architecture. Developed a capability for generating GENSER and SCI national and tactical data for GCCS-M testing, training and exercise support. Developed a documentation infrastructure that enabled required segment documentation to be utilized throughout GCCS-M (segment and system-level) in user's manuals, delivery documentation, and curriculum development.

R-1 SHOPPING LIST - Item No. 96

Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 39 of 90)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X0521 GCCS-M INTELLI	GENCE APPLICATIONS

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.091	1.005	0.846	0.971
RDT&E Articles Quantity				

Imagery / Video Processing: Continue migration of the imagery applications that support the Integrated Imagery and Intelligence (I3) product line to the NT platform. Meet fleet requirements for integrating order of battle maintenance, imagery analysis, and intelligence support to the Common Operational Picture into commercial COTS environments to facilitate easy integration with IT-21 platforms and products. Integrate capability into GCCS-M to support UAV data visualization and analysis. Continue to research and integrate Geospatial Information Services (GI&S) into GCCS-M, ensuring compatibility with NIMA developed systems with links to the applicable Imagery and Geospatial libraries. Develop interfaces to other imagery archives. Incorporate emerging requirements validated by Fleet operators through the CRWG requirements process.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	2.382	1.650	1.399	1.631
RDT&E Articles Quantity				

Threat OOB and C&P: Meet fleet requirements identified and prioritized at the CRWG for integrating order of battle maintenance, and intelligence support to the Common Operational Picture into commercial COTS environments to facilitate easy integration with IT-21 platforms and products. Provide Intel application research and support for IT-21 workstations. Provide data fills for the Intel database. Implement and enhanced a fully functional MIDB interface mechanism that enables GCCS-M intelligence applications, combat systems, and mission planning systems to access data within MIDB without having to change their software architecture with each MIDB release from the Defense Intelligence Agency (DIA). Provide increased functionality in the Intelligence and Imagery applications to support capabilities in the DII COE, including real-time, updates to mapping, communication, and track management tools. Integrate Intel data into the SCI enclave. Significant reduction in funding effects this effort from FY03 out.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.315	0.189	0.178	0.192
RDT&E Articles Quantity				

Spectral and Environmental Analysis: Develop and enhance Intel data sources for C2WC, nodal analysis, and other GCCS-M applications.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X0521 GCCS-M INTELLIG	GENCE APPLICATIONS

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.752	0.189	0.178	0.192
RDT&E Articles Quantity				

Targeting / Land Track: Continue integration of the Joint Targeting Toolbox products into GCCS-M, providing seamless capability to edit and view the targeting tables in combination with the Order of Battle (OOB) maintenance function performed in GCCS-M and provide a single set of interfaces within JTT for creation of target lists, selection of imagery, creation of task collection, plans, etc. Integrate SCI SIGINT support to GENSER Command and Control capabilities in support of time critical targeting. Significant reduction in funding effects this effort from FY03 out.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE:	Fabruary 2002	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	NI IMBED A	ND NAME	Ti	PROJECT NUMBER	2 AND NAME	February 2003	
	0604231N - TACTICAI					NTELLIGENCE APPLIC	SMOITAS	
RDIGE, N / BA-3	0604231N - TACTICAL	L COMMAN	DSYSTEM		XU521 GCC5-IVI II	NIELLIGENCE APPLIC	CATIONS	
(U) C. PROGRAM CHANGE SUMMARY:								
(U) Funding: Previous President's Budget:	I	FY 2002 6.596	FY 2003 3.610	FY 2004	FY 2005			
Current BES/President's Budget		6.400	3.033	2.601	2.986			
Total Adjustments		-0.196	-0.577	0.000	0.000			
Summary of Adjustments Section 8123: Management Reform Ini Miscellaneous Department Adjustments Sec 8029, P.L 107-248 FY03 FFRDC re Sec. 313, PL 107-206: Revised Econor Sec 8100 Business Process Reform Sec 8135 Economic Assumptions Sec 8109 IT Cost Growth	s eduction	-0.058 -0.106 -0.014 -0.018	-0.533 -0.006 -0.012 -0.020 -0.006					
Subtotal		-0.196	-0.577	0.000	0.000			
(U) Schedule: N/A.								
(U) Technical: N/A.								

CLASSIFICATION:

OPRIATION/BUDGE	T ACTIVITY		PROGRAM EI	LEMENT NUM	BER AND NAN	ИЕ	PROJECT NU	MBER AND N	l AME	repru	ary 2003
&E, N /	BA-5		0604231N - T	ACTICAL CON	MMAND SYSTE	ΞM	X0521 GCC	S-M INTELLIC	GENCE APP	LICATIONS	
(U) D. OTHER PRO	GRAM FUNDING SUMM	MARY:								То	Total
Line Item No. & Na	<u>ame</u>	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Complete	<u>Cost</u>
GCCS-M (OPN - BLI 2	2608)	59.304	52.996	52.398	63.418	107.101	63.753	85.923	106.005	Continuing	Continuing
(U) E. ACQUISITION	STRATEGY:										
N/A											

CLASSIFICATION:

									DATE:				
Exhibit R-3 Cost Analysis (pa	age 1)										February 20	03	
APPROPRIATION/BUDGET ACT	IVITY		PROGRAM E	LEMENT			PROJECT NU	JMBER AND N	IAME		-		
RDT&E, N / BA-5			0604231N -	TACTICAL CO	MMAND SYSTE	≣M	X0521 GCC	S-M INTELLI	GENCE APPL	ICATIONS			
Cost Categories	Contract			Total		FY 03		FY 04		FY 05			
1	Method	Activity &		PY s	FY 03	Award	FY 04	Award	FY 05	Award	Cost to	Total	Target Value
<u> </u>	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Primary Hardware Development												0.000	1
Ancillary Hardware Development												0.000	
Aircraft Integration	_											0.000	
Ship Integration		1										0.000	
Ship Suitability												0.000	+
Systems Engineering	VARIOUS	VARIOUS		18.268	0.378	VARIOUS	0.365	VARIOUS	0.381	VARIOUS	0.000		
Training Development		1										0.000	
Licenses		-										0.000	1
Tooling												0.000	
GFE												0.000	
Award Fees												0.000	
Subtotal Product Development				18.268	0.378		0.365		0.381		0.000	19.392	
Development Support												0.000	1
Software Development	VARIOUS	SVARIOUS		21.939	2.614	VARIOUS	2.196	VARIOUS	2.564	VARIOUS	0.000	29.313	
Integrated Logistics Support												0.000)
Configuration Management												0.000)
Technical Data												0.000)
Studies & Analyses												0.000)
GFE												0.000)
Award Fees												0.000)
Subtotal Support				21.939	2.614		2.196		2.564		0.000	29.313	
Remarks:													

CLASSIFICATION:

								DATE:				
Exhibit R-3 Cost Analysis (pag	ne 2)									February 200	3	
APPROPRIATION/BUDGET ACTIV	TTY		PROGRAM ELEMENT			PROJECT NU	MBER AND N	IAME				
RDT&E, N / BA-5			0604231N - TACTICAL CO	DMMAND SYST	EM	X0521 GCCS	S-M INTELLI	GENCE APPL	ICATIONS			
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04	FY 04 Award Date	FY 05	FY 05 Award Date		Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation	PD	OPTEVFOR	2.05	0.000)	0.000		0.000		0.000	2.056	
Live Fire Test & Evaluation											0.000	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			2.05	0.000	D	0.000		0.000		0.000	2.056	
		T			T	T	ī	T				
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	VARIOUS	VARIOUS	2.07	73 0.041	VARIOUS	0.040	VARIOUS	0.041	VARIOUS	0.000	2.195	
Travel											0.000	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			2.07	73 0.041	1	0.040		0.041		0.000	2.195	
Remarks:												
Total Cost			44.33	3.033	3	2.601		2.986		0.000	52.956	
Remarks:												

CLASSIFICATION:

EXHIBIT R4, Schedule																									DATE		F	ebrua	ary 20	03		
APPROPRIATION/BUDGET														R AND							PROJ						4 DDI	10 A TI	0110			
RDT&E, N /	BA-5)							06042	231N -	TACI	ICAL	JOMM	AND S	YSIE	IVI					X052	1 GC	CS-IVI	INIE	LLIGE	INCE	APPL	ICATI	ONS			
Fiscal Year		20	002			20	03			20	04			200)5			20	06			20	07			20	800			200	09	1
	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 Milestones											4.X M	LESTO	NE "C"						5.X M	ILESTO	DNE "C'						6.X M	ILESTO) DNE "C'			
Prototype Phase																																
Development																																
Delivery																																
Software 4.X SW Delivery								VER 4	 .X DEL	IVERY								VER 5	S.X DEL	I IVERY					VER 6	S.X DEI	 LIVERY					
Test & Evaluation Milestones																																
Development Test Operational Test										VER 4	.х от								VER 5	5.X DT/	 ОТ 					VER (6.X DT/	 ОТ 				
Production Milestones																																
Deliveries																																

^{*} Not required for Budget Activities 1, 2, 3, and 6

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE:	ebruary 20	03		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E	LEMENT			PROJECT NU	MBER AND NA	AME			
RDT&BA-5	0604231N - T	ACTICAL CON	MAND SYSTE	ΞM	X0521 GCC	CS-M INTELLIGENCE APPLICATIONS				
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		
Software Delivery 4.X			Q2							
Operational Test 4.X			Q3							
Milestone C 4.X			Q4							
Software Delivery 5.X					Q2					
Operational Test 5.X					Q3					
Milestone C 5.X					Q4		_			
Software Delivery 6.X							Q2			
Operational Test 6.X							Q3			
Milestone C 6.X							Q4			
		-		<u> </u>						
				 						
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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
									Febru	uary 2003	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	EMENT NUME	BER AND NAM	1E	PROJECT NU	MBER AND N	AME			
RDT&E, N / BA-5	0604231N - T	ACTICAL COM	MAND SYSTE	M		X2305 GCCS	S-M COMMO	N APPLICATI	ONS		
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Program
Project Cost	36.718	10.429	12.486	10.964	9.197	12.879	11.759	11.980	12.206	Continuing	Continuin
_											
RDT&E Articles Qty											0

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The GCCS-M Common Apps program contains the fundamental building blocks and common applications for all fielded Global Command and Control System (Maritime) C4I systems in the Navy, Marine Corps, and Coast Guard. It is the Navy's tactical implementation of the Global Command and Control System (GCCS) which provides the warfighter: (1) timely access to battlefield information, and (2) state-of-the-art information processing capability to support the Command and Control of maritime forces through a combination of communications, intelligence and combat system interfaces.

The Navy Common Operating Environment program is a core function of the GCCS-M Common Apps in that it serves as the system integration point for Command and Control systems in the Naval services. The program has the responsibility of working with developers throughout the Navy to incorporate the requirements of their users so that they might quickly and efficiently integrate and transform present stovepipe capabilities into an interoperable C4I architecture. As the number of legacy systems migrating to the Defense Information Infrastructure Common Operating Environment (DII COE) continues to grow, resources for rapidly folding them into the service extensions must keep pace as the complexity and size of the COE grows. As a product of evolutionary acquisition, the Navy COE will continue to evolve with the DII COE, new technology, and COMMERCIAL-OFF-THE-SHELF (COTS) products.

GCCS-M Common Apps includes all C4I applications required to fully support Navy joint interoperability in the littoral environment, and includes all common functions such as track database management, message processing, display implementation, correlation and system architecture migration in order to ensure a coherent and consistent implementation of C4I architectures in the Fleet.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
				February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME	
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X2305 GCCS-M COMMO	N APPLICATIONS	
	·			

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.704	0.876	0.768	0.759
RDT&E Articles Quantity				

Aircraft Mission Planning / TACMOBILE: Continue to develop/enhance/interface aircraft mission planning systems. Enable mission planning or mission routes and plans to be displayed on GCCS-M along with other threat and blue force data. Continue to incorporate web-enabled TBMCS and develop the required interfaces and procedures that interoperate with GCCS-M.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	2.000	2.112	1.504	0.489
RDT&E Articles Quantity				

Web-Enabling/IT-21/Readiness/ Continue to develop the N-tier architecture to support the transition of the USN C4I from the current client/server model to a web-enabled architecture per commercial e-commerce and e-business standards. Provide security infrastructure that will support SI and Collateral levels. Implement a public key exchange capability that enables internet-based applications such as web, e-mail, newsgroups to access a wide range of data over the DoD enterprise and maintain consistency with the DoD Public Key Infrastructure (PKI) policy. Incorporate development efforts to leverage emerging COTS products in support of IT-21 as adopted by commercial industry. Provide readiness capabilities, which will integrate with Joint and coalition forces, including web-based integration with GCCS-Joint, JOPES, and similar theater-level C4I systems.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.939	2.716	2.001	1.921
RDT&E Articles Quantity				

Testing/Usability (COMEXT/MAREXT): Continue to conduct proof of concept testing in exercise environments of emerging technology in the C4I arena. Continue to perform systems testing on the integrated components of the Naval C4I architecture developed as part of GCCS-M. Conduct operational test. Continue to develop and enhance an Enterprise Management capability within GCCS-M to enable remote monitoring and inventory of network and computing assets associated with the system. Implement requirements identified at the CRWG, which facilitate system administration tasks. Continue to enable fleet engineering activities and administrators to use enterprise management tools to remotely update software packages on PCs over the LAN, decreasing administrative burden and staffing requirements.

R-1 SHOPPING LIST - Item No. 96

Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 49 of 90)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
			February	y 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME	
RDT&E, N / BA5	0604231N - TACTICAL COMMAND SYSTEM	X2305 GCCS-M COMMO	N APPLICATIONS	

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.538	0.691	0.763	0.599
RDT&E Articles Quantity				

Combat Systems Interface: Provide C4I support of combat systems interfaces. Continue development of track management/correlation/merge processing as specified in WS-19702/1 to enable full exchange of tracks between GCCS-M, Aegis, Common Cover & Deception (C&D), Advanced Combat Direction System (ACDS), Ship Self Defense System (SSDS), Naval Fire Control System (NFCS) and other emerging combat systems. Modify track exchange architecture to promote orderly merging of OTH data between ATWCS/TTWCS/GCCS-M, including support for backwards compatibility of track databases. Provide support for Ground Order of Battle data to the combat system. Provide support for combat systems to utilize GCCS-M subscription and other web-based methodologies to obtain tailored intelligence and imagery products for analysis and display. Ensure full tactical data link message sets can be transmitted and received across the interface.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	4.500	4.728	4.272	4.095
RDT&E Articles Quantity				

JPN / TADILS / BROADCASTS: Support Joint/coalition warfare by developing an interoperable & scalable C4I system. Implement emerging TIBS requirements identified by the CRWG. Modernize TIBS to support the data feeds provided by advanced receiving systems, including IBS. Integrated and supported interfaces to the Joint Tactical Terminal Control Client. Utilize data compression and improve multicast techniques to reduce the amount of bandwidth required to disseminate the COP, including support for new Fleet requirements emerging from the CRWG. Enhance and improve COP Sync Tools per CRWG direction, including implementation of a capability for CST to operate in a Quality of Service mode so that multicast IP transmissions can be managed over the IT-21 infrastructure. Provide an automated mechanism for replicating web and newsgroup data from ship's servers to the Network Operations Centers (NOCs). Web-based replication mechanisms will enable tactically relevant data to be assessed in near real-time by shore commands without using ship bandwidth, compromising firewall security, or placing additional burdens on the NOC or ship.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.748	1.363	1.506	1.181
RDT&E Articles Quantity				

Targeting / Land Track: Provide enhanced capability for the Naval JSTARS Interface segment per Fleet direction at the CRWG, with full utilization of the Joint Mapping Toolkit. Incorporate the ability to provide radar services requests to the JSTARS aircraft. Integrate fire control call for fire capability into the JTT/GCCS-M/JSIPS-N targeting architecture. Expand ELINT data processing in GCCS-M to process specific emitter id data provided by enhanced sensor packages aboard P-3 AIP, U-2 and other national assets. In FY03, COMEXT/MAREXT participation increases: continue to integrate the Moving Target Exploitation (MTE) capability into JSTARS Interface, providing the ability to automatically initiate and maintain tracks on potential targets. Integrate Joint Collaborative products into GCCS-M to enable analysts to exchange application and text data over IP communications. Integrate and web-enable the Joint Targeting Toolbox.

R-1 SHOPPING LIST - Item No. 96

Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 50 of 90)

CLASSIFICATION:

	ation			DATE:	uary 2003
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUM	MBER AND NAME	PROJECT NUMBER AND N		1ai y 2003
DT&E, N / BA5	0604231N - TACTICAL CC		X2305 GCCS-M COMMO		
B. Accomplishments/Planned Program					
	FY 02	FY 03	FY 04	FY 05	1
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.150	0.153	
RDT&E Articles Quantity	0.000	0.000	0.100	0.100	
capabilities provide improved interoperability	· 				
	FY 02	FY 03	FY 04	FY 05	
Accomplishments/Effort/Subtotal Cost					
RDT&E Articles Quantity					
Accomplishments/Effort/Subtotal Cost	FY 02	FY 03	FY 04	FY 05	

R-1 SHOPPING LIST - Item No. 96

UNCLASSIFIED Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 51 of 90)

CLASSIFICATION:

XHIBIT R-2a, RDT&E Project Justification						DATE:	
							February 2003
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEME	NT NUMBER	AND NAME		PROJECT NUMBER	R AND NAME	
DT&E, N / BA-5	0604231N - TACTI	CAL COMMAN	ND SYSTEM		X2305 GCCS-M C	COMMON APPLICATION	IS
(U) C. PROGRAM CHANGE SUMMARY:							
(U) Funding:		FY 2002	FY 2003	FY 2004	FY 2005		
Previous President's Budget:		11.314	12.808				
Current BES/President's Budget		10.429	12.486	10.964	9.197		
Total Adjustments		-0.885	-0.322	0.000	0.000		
Summary of Adjustments							
Web Enabling Offset		-0.300					
Realignment for EKMS Tier 1		-0.500					
Section 8123: Management Reform I	nitiative	-0.093					
Miscellaneous Department Adjustmen		0.451	-0.135				
FY2002 SBIR	•	-0.177	000				
BTR for Joint Mission Planning Sys (J	MPS) Combat One	-0.215					
Sec. 313, PL 107-206: Revised Econo		-0.023					
Sec 8100 Business Process Reform		0.020	-0.051				
Sec 8135 Economic Assumptions	(020.0100)	-0.028	-0.091				
Sec 8109 IT Cost Growth		-0.020	-0.023				
Sec 8029 P.L. 107-248 FY03 FFRD0	C reduction		-0.023				
Subtotal		-0.885	-0.322				
(U) Schedule:							
N/A.							
(U) Technical:							
N/A.							
			NO LIOT II		20		

CLASSIFICATION:

ROPRIATION/BUDGE	T ACTIVITY		PROGRAM EI	EMENT NUM	BER AND NAM	ИE	PROJECT NU	MBER AND N	L AME	I GDI G	ary 2003
&E, N /	BA-5		0604231N - T	ACTICAL CON	MMAND SYSTE	ΞM	X2305 GCCS	S-M СОММО	N APPLICAT	TONS	
(U) D. OTHER PRO	GRAM FUNDING SUMN	MARY:								То	Total
Line Item No. & Na	ame	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Complete	<u>Cost</u>
GCCS-M (OPN - BLI 2	608)	59.304	52.996	52.398	63.418	107.101	63.753	85.923	106.005	Continuing	Continuing
(U) E. ACQUISITION	STRATEGY:										
N/A											

CLASSIFICATION:

Exhibit P. 2 Cost Analysis (no	ngo 1)								DATE:		February 200	าว	
Exhibit R-3 Cost Analysis (pa	ige i)		PROGRAM E	LEMENT			IDDO IECT NI	JMBER AND N	I A NAT		rebruary 200	J3	
RDT&E, N / BA-5	VIII			TACTICAL COI	MMAND SVST	= N.4			NAIVIE ON APPLICAT	IONIS			
Cost Categories	Contract	Performing	000423111 -	Total	I STOTI	FY 03	A2303 GCC	FY 04	T	FY 05			
Soci Satisgonios	Method & Type	Activity & Location		PY s Cost	FY 03 Cost	Award Date	FY 04 Cost	Award Date	FY 05 Cost	Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	<u>α 1</u> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Location		0001	0001	Date	0001	Dato	0001	Date	Complete	0.000	
Ancillary Hardware Development												0.000	
Aircraft Integration												0.000	
Ship Integration												0.000	
Ship Suitability												0.000	
Systems Engineering	VARIOUS	VARIOUS		5.678	1.175	VARIOUS	1.157	VARIOUS	0.883	VARIOUS	0.000		
Training Development												0.000	
Licenses												0.000	
Tooling												0.000	
GFE												0.000	
Award Fees												0.000	
Subtotal Product Development				5.678	1.175		1.157	7	0.883		0.000	8.893	
					<u>, </u>							<u>, </u>	
Development Support												0.000	
Software Development	VARIOU	SVARIOUS		34.239	9.431	VARIOUS	7.954	VARIOUS	6.900	VARIOUS	0.000		
Integrated Logistics Support												0.000	
Configuration Management												0.000	
Technical Data												0.000	
Studies & Analyses												0.000	
GFE												0.000	
Award Fees												0.000	
Subtotal Support				34.239	9.431		7.954	1	6.900		0.000	58.524	
Remarks:													

CLASSIFICATION:

											DATE:				
Exhibit R-3 Cost Analysis (pag	e 2)												February 200)3	
APPROPRIATION/BUDGET ACTIVI	TY		PROGRAM E	LEMENT						MBER AND N					
RDT&E, N / BA-5			0604231N - T		COM	IMAND SYST		X2305 G			N APPLICAT				
Cost Categories	Contract	Performing		Total			FY 03			FY 04		FY 05			
	Method	Activity &		PY s		FY 03	Award	FY 04		Award	FY 05	Award	Cost to	Total	Target Value
B 1 11 10 E 1 11	& Type	Location		Cost		Cost	Date	Cost		Date	Cost	Date	Complete		of Contract
Developmental Test & Evaluation		VARIOUS			4.535	0.956			941	VARIOUS	0.719		0.000		
Operational Test & Evaluation	VARIOUS	VARIOUS		(0.643	0.219	VARIOUS	0.	217	VARIOUS	0.165	VARIOUS	0.000	1.244	
Live Fire Test & Evaluation														0.000	
Test Assets														0.000	
Tooling														0.000	
GFE														0.000	
Award Fees														0.000	
Subtotal T&E					5.178	1.175		1.	.158		0.884		0.000	8.395	
Contractor Engineering Support														0.000	
Government Engineering Support														0.000	
Program Management Support	VARIOUS	VARIOUS		:	2.052	0.705	VARIOUS	0.	.695	VARIOUS	0.530	VARIOUS	0.000	3.982	
Travel														0.000	
Transportation														0.000	
SBIR Assessment														0.000	
Subtotal Management				:	2.052	0.705		0.	.695		0.530		0.000	3.982	
Remarks:															
Total Cost		_		4	7.147	12.486		10.	.964		9.197		0.000	79.794	
Remarks:															

CLASSIFICATION:

EXHIBIT R4, Schedul																										DATI		F	ebrua	ary 20	003		
APPROPRIATION/BUDGE															R AND							PROJ											
RDT&E, N /	BA-	5								06042	231N -	- TAC	TICAL	COMM	IAND S	YSTE	M					X230	5 GCC	JS-M	СОМ	IMON T	APPL	ICATI	ONS				
Fiscal Year		:	2002	2			20	003	1		20	04			200	05			20	06	1		200	07			20	800	1		200	09	
	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 Milestones												4.X M	ILESTO	ONE "C						5.X MI	LESTO	ONE "C"						6.X M	ILESTO	ONE "C"			
Prototype Phase																																	
Development																																	
Delivery																																	
Software 4.X SW Delivery									VER 4	I I.X DEL	IVERY								VER 5	I S.X DEL	I IVERY					VER	S.X DEI	 LIVERY 					
Test & Evaluation Milestones																																	
Development Test																				ļ. <u>.</u>													
Operational Test											VER 4	A.X OT								VER 5	S.X DT/	OT					VER	6.X DT/	OT				
Production Milestones																																	
Deliveries																																	

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE:	ebruary 20	03
APPROPRIATION/BUDGET ACTIVITY	PROGRAM EI	FMFNT			PROJECT NU	MBER AND NA	AMF	
RDT&BA-5		ACTICAL COM	MAND SYSTE	=N/I		6-M COMMO		ONS
						FY 2007		
Schedule Profile	F Y 2002	FY 2003	F 1 2004	FY 2005	F 1 2006	F Y 2007	F 1 2008	FY 2009
Software Delivery 4.X Operational Test 4.X			Q2					
Operational Test 4.X			Q3					
Milestone C 4.X			Q4	ļ	<u> </u>			
Software Delivery 5.X					Q2			
Operational Test 5.X					Q3			
Milestone C 5.X					Q4			
Software Delivery 6.X					+		Q2	
Operational Test 6.X							Q3	
Milestone C 6.X							Q4	
	1			 	+			
				 	+			
	1			†	1			

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
									Febru	uary 2003	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	LEMENT NUME	BER AND NAM	1E	PROJECT NU	MBER AND N	AME			
RDT&E, N / BA-5	0604231N - ⁻	Tactical Comma	and Systems			X2306 / Naval	Simulation Sys	stems			
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Program
Project Cost	11.251	3.243	0.000	0.000	0.000	0.000	0.000	0.000	0.000		14.49
RDT&E Articles Qty											0

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Naval Simulation System (NSS) provides a capability to simulate the execution of all Naval Warfare including Operations Other Than War to be used for a number of related purposes. Fleet Command Centers, both ashore and afloat will use this capability for Course of Action Assessment; that is, to assess the effectiveness of operational plans with respect to measures defined by the fleet planner. NSS also supports fleet operations by providing a capability to inject simulated platform, system, or commander level entities into real world Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems, and by providing automated tools for conducting post-exercise analyses. Acquisition Planners in OPNAV will use this capability to conduct requirements analysis and cost effectiveness analysis for new Naval systems. NSS provides a comprehensive ability to simulate and assess Naval and joint CONOPS and system/platform/force level capabilities. NSS explicitly accounts for C4ISR interactions among all Warfare Mission Areas (WMAs). In each of these applications, NSS provides detailed analyses of performance including trace ability of the warfighting outcome to specific components of the "sensor to decision-maker to shooter" architecture.

The Naval Simulation System will also support Command Level training for operational forces at the Task Force or Battle group level. In addition, the Naval Simulation System will support distributed computing on multiple High Performance Computers connected together on a network such as the Defense Information Infrastructure and Fleet Operational Communication Links at multiple classification levels. The same networks that are used to provide access to distributed computing will also be used for Distributed Collaborative Planning by means of which planners at different sites with responsibility for different aspects of the plan can work together collaboratively to produce a single coherent plan. This collaborative planning capability will be used to support Joint Planning between different service components. The Naval Simulation System will undergo Verification and Validation during its design and implementations phases, and will be Accredited for each intended major application. This effort funds the development and maintenance of the Naval Simulation System and the infrastructure of subject matter experts needed for ongoing Verification, Validation, and Accreditation (VV&A) and Configuration Control Management.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA-5	0604231N - Tactical Command Systems	X2306 / Naval Simulation Sy	vstems

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.356	0.000	0.000	0.000
RDT&E Articles Quantity				

Interfaced NSS with the JMV (Map Server) and NRL Ambassador for pulling COP (Common Operational Picture). Performed assessment to determine which Tactical Decision Aids (TDAs) are supportive of meeting NSS ORD requirements. Conducted partial independent testing on all newly developed software.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.119	0.000	0.000	0.000
RDT&E Articles Quantity				

Continued development of C4ISR functionality in support of Antisubmarine Warfare (ASW), Surface Warfare (SuW), Air Warfare (AW), including physical environmental modeling, upgrade of Measure of Effectiveness (MOE), Graphical User Interface (GUI) enhancements and industry versions of NSS. Continued development of SuW functionality module and planning tool. Initiate development of Amphibious Warfare (AMW) functionality module and planning tool. Continue Mine Warfare (MIW) and Mine Counter Mine (MCM), Warfare Mission Area (WMA) and Design Agent (DA).

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.074	0.000	0.000	0.000
RDT&E Articles Quantity				

Continued development of Logistics (LOG) functionality module. Continued development of Strike Warfare Mission Area (WMA) and Decision Aid (DA).

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - Tactical Command Systems	X2306 / Naval Simulation Systems
#D.B.A. #1.4 #1.5		

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.038	0.000	0.000	0.000
RDT&E Articles Quantity				

Supported VV&A Subject Matter Expert (SME) activities. Included review of all conceptual models and code development.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000
RDT&E Articles Quantity				

Continued implementation of run-time improvement technology as specified by DDB (Design Decision Briefs).

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.150	0.000	0.000	0.000
RDT&E Articles Quantity				

Implemented Operational Databases including current tactical picture and targeting databases. Continued Integration of Operational Databases including COP, and JMTK terrain data.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
RDT&E, N / BA-5	0604231N - Tactical Command Systems	X2306 / Naval Simulation Sy	rstems

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.075	0.000	0.000	0.000
RDT&E Articles Quantity				

Continued support to Naval Post Graduate School (NPGS) Fires Analysis project and Fleet Battle Experiments (FBEs) 02 planning, wargaming, and experimentation.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.085	0.000	0.000	0.000
RDT&E Articles Quantity				

Continued support to testing facilities at NPGS and Independent Testing.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.030	0.000	0.000	0.000
RDT&E Articles Quantity				

Added/improved the interfaces between NSS and similar simulation systems from other services to improve interoperability with other services for an improved Joint Simulation capability to support Joint Assessments and Joint Command Level Training.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
RDT&E, N / BA-5	0604231N - Tactical Command Systems	X2306 / Naval Simulation Sy	rstems

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.055	0.000	0.000	0.000
RDT&E Articles Quantity				

Identified and imported the standard/validated data and information needed to characterize the additional/improved warfare area representations directed by the NSS Configuration Control Board.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.064	0.000	0.000	0.000
RDT&E Articles Quantity				

Implemented, tested, and documented improvements to the NSS GUI CAT COA Tool. Provided for Training and Maintenance.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.115	0.000	0.000	0.000
RDT&E Articles Quantity				

Supported Integrated Product Teams (IPTs) addressing Task Force Web (TFW) implementation issues and Integrated Development Teams (IDTs) addressing user based requirements. Continued assessment of Earned Value management system.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justificat	ion	DATE:
		February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - Tactical Command Systems	X2306 / Naval Simulation Systems

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.300	0.000	0.000	0.000
RDT&E Articles Quantity				

Supported NSS Configuration Control Board. Developed DDB for NSS build v3.3. Conducted factory testing of NSS build v3.3 for deployment certification. Conducted independent testing of all newly developed software code.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.207	0.000	0.000	0.000
RDT&E Articles Quantity				

Implemented Lockheed Martin Software Change Requests (SCRs) and provided monthly patches to CPF.

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.575	0.000	0.000	0.000
RDT&E Articles Quantity				

Joint Methodology to Assess C4ISR Architecture (JMACA) program.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE:	February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT N	UMBER AND NA	ME	P	ROJECT NUMBER	AND NAME	1 coldary 2000
RDT&E, N / BA-5	0604231N - Tactical Co	mmand Systems		X	2306 / Naval Simul	ation Systems	
(U) C. PROGRAM CHANGE SUMMARY:		,		· · · · · · · · · · · · · · · · · · ·		,	
(U) Funding: President's Budget: Current BES/President's Budget		FY 2002 5.208 3.243	FY 2003 0.000 0.000	FY 2004 0.000	FY 2005 0.000		
Total Adjustments Summary of Adjustments		-1.965	0.000	0.000	0.000		
Miscellaneous Department Adji Section 8123: Management Re FY2002 SBIR (dtd 5-15-02) Joint Mission Planning Systems Joint Methodology to Assess C Sec. 313, PL 107-206: Revised Sec 8135 Economic Assumptio Modeling and Simulation realig	eform Initiative s (JMPS) Combat One (JC1) 4ISR Architecture (JMACA) Economic Assumptions ns	-0.275 -0.044 -0.097 -0.098 0.575 -0.011 -0.015 -2.000	0.000	0.000	0.000		
(U) Schedule: N/A							
(U) Technical: N/A							

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM F	I EMENT NUM	BER AND NAM	1F	PROJECT NU	IMBER AND N	AME	Februa	ry 2003	
RDT&E, N / BA-5			Tactical Comm		· L		Simulation Sys				
		1000 120 111									
(U) D. OTHER PROGRAM FUNDING SUMMARY:									То	Total	
Line Item No. & Name	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	<u>Complete</u>	<u>Cost</u>	
N/A											
N/A											
(U) E. ACQUISITION STRATEGY:											
N/A											

CLASSIFICATION:

						DATE:				
								F	ebruary 2003	
PROGRAM ELE	MENT			PROJECT NU	JMBER AND N	IAME			-	
0604231N - Tad					I Simulation Sy	vstems				
To	otal		FY 03		FY 04		FY 05			
P			Award Date	FY 04 Cost	Award Date	FY 05 Cost	Award Date	Cost to Complete	Total Cost	Target Value of Contract
	.031	0031	Date	Cost	Date	COSt	Date	Complete	0.000	
									0.000	
									0.000	
									0.000	
									0.000	
	0.434								0.434	
									0.000	
	0.220								0.220	
									0.000	
									0.000	
									0.000	
	0.654	0.000		0.000)	0.000		0.000	0.654	
									0.000	
CA	9.927									
									0.000	
CA	1.115								1.115	
									0.000	
									0.000	
									0.000	
									0.000	
	11.042	0.000		0.000)	0.000		0.000	11.042	
	- CA	- CA 1.115	- CA 1.115	- CA 1.115	- CA 1.115	- CA 1.115	- CA 1.115 1	- CA 1.115	- CA 1.115	-CA 1.115

CLASSIFICATION:

									DATE:				
Exhibit R-3 Cost Analysis (page 2)								DATE.		February 2003		
APPROPRIATION/BUDGET AC	TIVITY	ı	PROGRAM ELEMEN	IT.			PROJECT N	NUMBER ANI	D NAME				
RDT&E, N / BA-5			0604231N - Tactica	l Comma	and Systems		X2306 / Nav	val Simulation	Systems				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost		FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluatio		Metron - CA / Ro		1.052							'	1.052	
Operational Test & Evaluation												0.000	
Live Fire Test & Evaluation												0.000	
Test Assets												0.000	
Tooling												0.000	
GFE												0.000	
Award Fees												0.000	
Subtotal T&E				1.052	0.00	0	0.0	00	0.0	000	0.000	1.052	
Contractor Engineering Support												0.000	
Government Engineering Support	WR	SSC SD		1.474								1.474	
Program Management Support	Various	Various		0.212								0.212	
Travel		HQ		0.060								0.060	
Transportation												0.000	
SBIR Assessment												0.000	
Subtotal Management				1.746	0.00	0	0.0	00	0.0	000	0.000	1.746	
Remarks:													
Total Cost				14.494	0.00	0	0.0	00	0.0	000	0.000	14.494	
Remarks:													

CLASSIFICATION:

PROGRAM I	ELEMENT NUM nd System	BER AND NAM	1E	PROJECT NU X2307 Integra				uary 2003	
N Tactical Comma		BER AND NAM	1E				em (ISNS)		
	nd System			X2307 Integra	ted Shipboard	Network Syste	em (ISNS)		
•									
									Total
ost FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Program
3.45	7 1.567	1.041	1.697	1.246	1.373	1.398	1.424	Continuing	Continuing

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Integrated Shipboard Network System (ISNS) program provides every Navy ship, including submarines, with a reliable, high-speed Local Area Network (LAN) that will provide LAN and Wide Area Network (WAN) access to the DISN WAN (Secure and Nonsecure Internet Protocol Router Network - SIPRNet and NIPRNet). It provides real-time information exchange between afloat units, Component Commanders, numbered Fleet Commanders and Fleet CINCs through the migration of existing legacy systems into the IT-21 strategy and is a key factor in the implementation of the Navy's portion of Joint Vision 2010. Under the Navy's information modernization strategy, full synchronization of shipboard networks, mission and information applications and Radio/Satellite communications and shore data dissemination infrastructure, installations are necessary to ensure end-to-end mission capability. The ISNS program maximizes the use of both COTS software and hardware resulting in dependence on commercially supported hardware and software. Engineering and technical support is provided so that existing systems will keep pace with hardware and software that is supported commercially.

The Integrated Shipboard Networking System (ISNS) project uses a combination of high speed switches, routers, servers and workstations, commercial networking, security and operating system software technologies to provide network access to classified and unclassified applications for use by ship's force, embarked units, embarked commanders and their staffs. The Integrated Shipboard Networking System is integrated with the Automated Digital Networking System (ADNS) and existing RF systems.

Under the Navy's information modernization strategy, full synchronization of shipboard networks, mission and information applications, Radio/Satellite communications and shore data dissemination infrastructure, installations are necessary to ensure end-to-end mission capability. The Integrated Shipboard Networking System program is closely synchronized on a ship by ship basis with the following dependent programs: Global Command and Control System Maritime (GCCS-M) and Navy Tactical Command Support System (NTCSS); and with these other related programs: Navy Standard Integrated Personnel System (NSIPS), Theatre Medical Information Program – Maritime (TMIP-M), Defense Messaging System (DMS), Extremely High Frequency Satellite Communication (EHF SATCOM), Super High Frequency Satellite Communication (SHF SATCOM), Commercial SATCOM, Ultra High Frequency Satellite Communication (UHF SATCOM), Digital Wideband Transmission System (DWTS), ADNS, Digital Modular Radio (DMR), Global Broadcasting System (GBS), Video Information Exchange System (VIXS) and Information Security (INFOSEC) programs. The ISNS program provides infrastructure to support implementation/fielding of programs listed above. If the ISNS infrastructure is not in place, a large segment of the Fleet will not be able to utilize the available capabilities to improve productivity and increase efficiency. The ISNS program maximizes the use of Commercial off the shelf (COTS) software and hardware resulting in dependence on these items being commercially supported. The LAN modernization rate must keep pace with hardware and software that is supported commercially.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:		
			February 2003		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME			
RDT&E, N / BA-5	0604231N Tactical Command System	X2307 Integrated Shipboard Network System (ISNS)			

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	3.457	1.567	1.041	1.697
RDT&E Articles Quantity				

(FY02) Investigated, developed and tested server and workstation technology upgrades to incorporate into existing architecture. Investigated, developed and tested Enterprise-Wide Network Management and Administration to merge with existing Integrated Network Management development solutions. Researched and developed more complex e-mail security and general security systems as they relate to the Shipboard LAN infrastructure. Investigated, developed and tested NT software scripting.

(FY03) Investigate, develop and test switch technology upgrades to the Shipboard LAN architecture. Investigate, develop and test Next Generation LAN Protocols to incorporate into existing Shipboard LAN architecture to ensure that technology replacement continues to advance with the changing technology. Perform developmental testing in support of MS C for Block 1 architecture.

(FY04-FY05) Continue to investigate, develop and test next generation LAN Protocols (including Wireless LAN, Network management and administration, Secure/Nonsecure Voice, Internet Protocol Video and Quality of Service protocols) for potential incorporation into the Shipboard LAN architecture. Investigate, integrate and test data prioritization, advanced data storage and management, next generation server/workstation operation systems and fixes for security vulnerabilities. Perform studies to increase availability and survivability of networks and reduce network infrastructure footprint. Continual investigation of protocols, hardware, and software for insertion into the LAN architecture is driven by eighteen month technology change cycle and maintaining a secure network against evolving threats. Perform follow-on system developmental and operational testing. Perform developmental testing and operational testing of Block 1 and Block 2 architecture. The testing events will support MS C for Block 2 Architecture.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE:					
			February 2003			
APPROPRIATION/BUDGET ACTIVITY				PROJECT NUMBER AN	ID NAME	
RDT&E, N / BA-5				X2307 Integrated Shipboard Network System (ISNS)		
(U) C. PROGRAM CHANGE SUMMARY:						
(U) Funding:	FY 2002	FY 2003	FY 2004	FY 2005		
President's Budget:	3.958	1.602				
Current BES/President's Budget	3.457	1.567	1.041	1.697		
Total Adjustments	-0.501	-0.035	0.000	0.000		
Summary of Adjustments						
Section 8123: Management Reform	Initiative -0.035					
FY2002 SBIR/STTR Transfer	-0.039					
Sec 313, PL 107-206 Rev. Econ. Assum	pption -0.008					
Sec 8100 Business Process Reform	0.000	-0.006				
Sec 8135 Economic Assumptions	-0.011	-0.009				
Sec 8109 IT Cost Growth	0.000	-0.003				
Miscellaneous Department Adjustments	-0.408	-0.017				
Subtotal	-0.501	-0.035	0.000	0.000		
(U) Schedule:						
Not Applicable.						
(U) Technical:						
• •						
Not Applicable.						
		DINIC LICT I		00		

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project J	ustification							DATE:			
									Februa	ry 2003	
APPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT NUMBER AND NAME PROJECT NUMB					MBER AND N	AND NAME					
RDT&E, N / BA	4-5	0604231N Tactical Command System X2307 Integrated S				ated Shipboard	poard Network System (ISNS)				
(U) D. OTHER PROGRAM FUN	DING SUMMARY:								_	T	
Line Item No. & Name	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To <u>Complete</u>	Total <u>Cost</u>	
BLI: 3050 COMM AUTO	130.517	162.180	175.087	140.517	271.940	90.342	121.506	165.090	Cont.	Cont.	

(U) E. ACQUISITION STRATEGY:

Acquisition, Management and Contracting Strategy are to support: Investigated, developed and tested server and workstation technology upgrades to incorporate into existing architecture.

Note: ACAT 1AC designation requested by DASN (14 Aug 02).

R-1 SHOPPING LIST - Item No. 96

CLASSIFICATION:

Primary Hardware Development WX SSC CH Primary Hardware Development WX SSC SD Primary Hardware Development TMM EDS Systems Engineering MIPR MITRE Systems Engineering MIPR FEDSIM Systems Engineering Various Various Licenses Tooling	PY s			PROJECT NUME				February 200	3	
RDT&E, N / BA-5 Cost Categories Contract Method & Type Location Primary Hardware Development Primary Hardware Development Primary Hardware Development WX SSC CH Primary Hardware Development WX SSC SD Primary Hardware Development TMM EDS Systems Engineering MIPR MITRE Systems Engineering MIPR FEDSIM Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development	0604231N Tactical Comman ng Total k PY s							-		
Cost Categories Contract Method & Type Primary Hardware Development WX SSC CH Primary Hardware Development WX SSC SD Primary Hardware Development TMM EDS Systems Engineering MIPR MITRE Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development	ng Total PY s			V0007 Into meta						
Method & Type	PY s			X2307 Integrated Shipboard Network System (ISNS)						
& Type Location Primary Hardware Development MIPR FEDSIM Primary Hardware Development WX SSC CH Primary Hardware Development WX SSC SD Primary Hardware Development TMM EDS Systems Engineering MIPR MITRE Systems Engineering WIPR FEDSIM Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development			FY 03		FY 04		FY 05			
Primary Hardware Development MIPR FEDSIM Primary Hardware Development WX SSC CH Primary Hardware Development WX SSC SD Primary Hardware Development TMM EDS Systems Engineering MIPR MITRE Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development		FY 03 Cost	Award Date		Award Date	FY 05 Cost	Award Date			Target Value of Contract
Primary Hardware Development WX SSC CH Primary Hardware Development WX SSC SD Primary Hardware Development TMM EDS Systems Engineering MIPR MITRE Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development				0.1874	12/03	0.305	12/04	Complete	Continuing	or Contract
Primary Hardware Development WX SSC SD Primary Hardware Development TMM EDS Systems Engineering MIPR MITRE Systems Engineering WIPR FEDSIM Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development				0.1874	12/03	0.305	12/04	Continuing	Continuing	
Primary Hardware Development TMM EDS Systems Engineering MIPR MITRE Systems Engineering MIPR FEDSIM Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development	1.094			0.1874	12/03	0.303	12/04	Continuing	Continuing	
Systems Engineering MIPR MITRE Systems Engineering MIPR FEDSIM Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development	0.196		12/02	0.2003	12/03	0.456	12/04	Continuing	0.196	
Systems Engineering MIPR FEDSIM Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development	0.426								0.196	
Systems Engineering Various Various Licenses Tooling GFE Award Fees Subtotal Product Development		1	12/02	0.0625	12/03	0.085	12/04	Continuina		
Licenses Tooling GFE Award Fees Subtotal Product Development	0.810 0.810		12/02	0.0625	12/03	0.065	12/04	Continuing	Continuing 0.810	
Tooling GFE Award Fees Subtotal Product Development	0.810								0.000	
GFE Award Fees Subtotal Product Development									0.000	
Award Fees Subtotal Product Development									0.000	
Subtotal Product Development									0.000	
	6.659	1.037		0.6975		1.153		0.000	9.546	
Development Support									0.000	
Software Development									0.000	
Integrated Logistics Support									0.000	
Configuration Management									0.000	
Technical Data									0.000	
Studies & Analyses									0.000	
GFE									0.000	
Award Fees									0.000	
Subtotal Support	0.000	0.000		0.000		0.000		0.000	0.000	
Remarks:										

CLASSIFICATION:

									DATE:				
Exhibit R-3 Cost Analysis (p											February 200)3	
APPROPRIATION/BUDGET ACT	IVITY		PROGRAM ELE				PROJECT NU						
RDT&E, N / BA-5		1	0604231N Taction				X2307 Integr		d Network Syste		•	, 	-
Cost Categories	Contract Method & Type	Performing Activity & Location	P	otal Y s ost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05	FY 05 Award Date	Cost to	Total Cost	Target Value of Contract
Test & Evaluation	WX	SSC CHS		0.570			0.073		0.119		Continuing		
Test & Evaluation	WX	SSC SD		1.047	1	1	0.146		0.255		Continuing	<u> </u>	1
Test & Evaluation	WX	SSC Chespk		0.555		1	0.063		0.102		Continuing	·	
Operational Test & Evaluation	WR	OPTEVFOR		0.206			0.062		0.068		Continuing		'
Tooling									3.000	1-74		0.000	
GFE												0.000	
Award Fees												0.000	,
Subtotal T&E				2.378	0.530		0.344		0.544		0.000		
Contractor Engineering Support												0.000)
Government Engineering Support												0.000	
Program Management Support	wx	SSC CHS		0.257	,		+				+	0.257	
Travel	***	000 0110		0.207								0.000	
Transportation												0.000	
SBIR Assessment												0.000	
Subtotal Management				0.257	0.000		0.000)	0.000		0.000	0.257	
Remarks:													
Total Cost				9.294	1.567	,	1.041		1.697		0.000	13.599	,
Remarks:													

EXHIBIT R4, Schedule P	rofile																								DATE	:	Г-	L	201	12		
APPROPRIATION/BUDGET	ACTIV	ITY							PROG	RAM F	ELEME	NT NI	UMBE	R AND	NAME	=					PROJI	ECT N	UMBE	R AND	NAME		re	bruar	y 200	13		
	BA-5									31N Ta														Shipboa			System	(ISNS)			
Fiscal Year		20	02			200	03			200)4			200)5			200	06			200		·		200	-			200	9	
	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 Milestones			MS C							FR	P					MSC 			FRI	\				MS C			FRP					
Engineering Development				Block	1 (Gia	E)								Block	2								Bloc	k 3								
																										i l						
Test & Evaluation Milestones Development Test Operational Test Production Milestones LRIP FY 02				Block	I (Gig	E) LRI		DT	ОТ						DT			ОТ						DT/ OA								
Deliveries																																
Notes: ISNS has been fielding ATM LAN sind Block 1 (known as GiG E) is an evolu									and forr	nal LRIF).	R-1	SHO	PPIN	G LIS	T - Ite	em No).	96			1					ı	1	ı	1	1	

Exhibit R-4a, Schedule Detail							ebruary 20	03
APPROPRIATION/BUDGET ACTIVITY	PROGRAM	ELEMENT			PROJECT NU	JMBER AND	NAME	
RDT&E, N /BA 5	0604231N Ta	ctical Comman	d System		X2307 Integrat	ted Shipboard I	Network System	(ISNS)
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Milestone C (MS C for Blocks 1, 2 & 3)	3Q			4Q		4Q		
Developmental Testing		4Q		3Q				
Operational Testing			1Q		2Q			
Developmental Testing/Operational Assessment Start Low-Rate Initial Production (Block 1 (Gig E) LRIP)						4Q		
Start Low-Rate Initial Production (Block 1 (Gig E) LRIP)	2Q							
Full Rate Production Start			2Q		3Q		3Q	
	_							
	_							
	1							
	1							
	1							
						<u> </u>		

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE:			
									Febru	uary 2003	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	EMENT NUME	BER AND NAM	1E	PROJECT NU	MBER AND N	AME			
RDT&E, N / BA-5	0604231N Tag	ctical Command	d System			X3032 NTCSS	;				
	Prior										Total
COST (\$ in Millions)	Years Cost	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	Cost to Complete	Program
Project Cost	0.000	4.790	4.906	3.314	3.332	2.440	3.441	3.506	3.571	Continuing	Continuing
RDT&E Articles Qty	0	0	0	1	1	0	0	0	0	0	2

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

X3032. Navy Tactical Command Support Systems (NTCSS) - This RDT&E Project funding supports design, development and testing of the components of the NTCSS web initiative: (1) Web-enabling the NTCSS application suite, (2) NTCSS Enterprise Database and (3) Maritime Logistics Data Network (MLDN). The development of a web-enabled Enterprise Database for NTCSS application will place all NTCSS databases into a similar structure, allowing greater interoperability between applications to meet Next Generation Network (NGN) requirements both afloat and ashore. MLDN will facilitate the movement of administrative workload from ships to shore.

(U) JUSTIFICATION FOR BUDGET ACTIVITY:

This program is funded under ENGINEERING AND MANUFACTURING DEVELOPMENT because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justifica	tion		DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
RDT&E, N / BA-5	0604231N Tactical Command System	X3032 NTCSS	

(U) B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments	4.790	4.906	3.314	3.332
RDT&E Articles Quantity			1	1

FY2002 ACCOMPLISHMENTS:

Web-enabling of NTCSS applications and enterprise database designed, developed and tested. MLDN initiative started with Business Process Improvement to identify which shipboard business can be put ashore.

FY 2003 PLAN:

Continue Web-enabling of NTCSS applications and enterprise database design, development and testing & support and documentation. Prototype Force-level eNTCSS delivered in FY04. MLDN tasks are focused on developing the communications and security architecture needed to implement the MLDN capability throughout the fleet, and life cycle support for existing platforms.

FY2004 AND FY2005 PLAN:

MLDN tasks are focused on developing the communications and security architecture needed to implement the MLDN capability throughout the fleet, and life cycle support for existing platforms. Prototype MLDN and Enterprise Database delivered in FY05. MS C for Force-level eNTCSS in FY04.

CLASSIFICATION:

(HIBIT R-2a, RDT&E Project Justification						DATE:	
							February 2003
PROPRIATION/BUDGET ACTIVITY	PROGRAM ELEME	ENT NUMBER	AND NAME		PROJECT NUMBE	ER AND NAME	
T&E, N / BA-5	0604231N Tactical	Command Sys	stem		X3032 NTCSS		
(U) C. PROGRAM CHANGE SUMMARY:							
(U) Funding:		FY 2002	FY 2003	FY 2004	FY 2005		
President's Budget:		3.963	5.016				
Current BES/President's Budget		4.790	4.906	3.314	3.332		
Total Adjustments		0.827	-0.110	0.000	0.000		
Summary of Adjustments							
Sec 8123: Management Reform Initiative		-0.035					
Sec. 313, PL 107-206: Revised Econon	nic Assumptions	-0.008					
Section 8100: Business Process Reform	n .		-0.020				
Section 8135: Economic Assumptions		-0.011	-0.028				
Section 8109: IT Cost Growth			-0.009				
Miscellaneous Navy Adjustments		0.960					
Miscellaneous Department Adjustments		-0.079	-0.053				
Subtotal		0.827	-0.110	0.000	0.000		
(U) Schedule:							
Not Applicable.							
ног Арріїсавіе.							
(U) Technical:							
Not Applicable.							
11							
		D 4 CHODD	ING LIST - It	hana Nia	96		

CLASSIFICATION:

EXHIBIT R-2a, RDT&E	Project Justification							D	ATE:			
										Febru	ary 2003	
APPROPRIATION/BUDGET	ACTIVITY	P	ROGRAM ELE	MENT NUMBE	R AND NAME		PROJECT NUMB	ER AND NAN	ЛE			
RDT&E, N /	BA-5	06	604231N Tactio	cal Command S	System		X3032 NTCSS					
` ,	GRAM FUNDING SUMMARY:									То	Total	
<u>Line Item No. & Nar</u> OPN 261100 Naval T Related RDT&E	me Factical Command Support Syst	FY 2002 41.043	<u>FY 2003</u> 46.876	<u>FY 2004</u> 52.594	<u>FY 2005</u> 44.614	FY 2006 81.073		FY 2008 47.982	FY 2009 67.399	Complete Continuing	<u>Cost</u> Continuing	
PE 0605013N X3054	Navy Web-enabling	8.629	2.033	0	0	0	0	0	0			

(U) E. ACQUISITION STRATEGY:

The NTCSS Acquisition Strategy is defined in its Single Acquisition Management Plan (SAMP) dtd 7 May 99.

										DATE:				
Exhibit R-3 Cost Analysis (pa	ige 1)											February 20	03	
APPROPRIATION/BUDGET ACTI			PROGRAM E	LEMENT				PROJECT N	JMBER AND	NAME				
RDT&E, N / BA-5			0604231N Ta		nand Sy	/stem		X3032 NTCS						
Cost Categories	Contract Method	Activity &		Total PY s	FY		FY 03 Award	FY 04	FY 04 Award	FY 05	FY 05 Award	Cost to	Total	Target Value
D: U I D I	& Type	Location		Cost	Cos		Date	Cost	Date	Cost	Date	Complete	Cost	of Contract
Primary Hardware Development	Various	Various		0.0	600	0.034	10/02	0.034	10/03	0.034	10/04	Continuing		1
Ancillary Hardware Development													0.000	
Aircraft Integration									1				0.000	
Ship Integration									1				0.000	
Ship Suitability									1				0.000	
Systems Engineering	Various	Various		0.1	700	0.150	10/02	0.150	10/03	0.150	10/04	Continuing	·	1
Training Development													0.000	
Licenses	Various	Various		0.4	400	0.200	10/02	0.100	10/03	0.100	10/04	Continuing	·	1
Tooling													0.000	
GFE													0.000	
Award Fees													0.000	1
Subtotal Product Development				1.	700	0.384		0.284	1	0.284		Continuing	Continuing	j
Development Support													0.000)
Software Development	Various	Various		2.	741	3.436	10/02	2.045	10/03	2.263	10/04	Continuing	Continuing	,
Integrated Logistics Support													0.000	,
Configuration Management	Various	Various		0.	100	0.180	10/02	0.180	10/03	0.180	10/04	Continuing	Continuing	,
Technical Data	Various	Various				0.100	10/02	0.100	10/03	0.100	10/04	Continuing	Continuing	
Studies & Analyses													0.000	,
GFE													0.000	,
Award Fees													0.000	,
Subtotal Support				2.	841	3.716		2.325	5	2.543		0.000	11.425	,
Remarks:														

CLASSIFICATION:

										DATE:				
Exhibit R-3 Cost Analysis (pag	e 2)											February 200	03	
APPROPRIATION/BUDGET ACTIV	ITY		PROGRAM ELE	EMENT				PROJECT N	JMBER AND	NAME				
RDT&E, N / BA-5			0604231N Tact		d System			X3032 NTCS						
Cost Categories	Contract	Performing		Total			7 03		FY 04		FY 05			
	Method & Type	Activity & Location		PY s Cost	FY 03 Cost		vard ate	FY 04 Cost	Award Date	FY 05 Cost	Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various		0.035		275	10/02	0.275		0.27		Complete	1	or Contract
Operational Test & Evaluation	various	various		0.030	0	2/3	10/02	0.273	10/03	0.27	10/04	Continuing	0.000	
Live Fire Test & Evaluation													0.000	
													0.000	
Test Assets													0.000	
Tooling													0.000	
GFE													1	
Award Fees			+					0.07			_		0.000	
Subtotal T&E				0.035	0.	275		0.275	<u> </u>	0.27	5	0.000	0.860	ļ
Contractor Engineering Support	Various	Various		0.184	0.	406	10/02	0.306	10/03	0.10	6 10/04	Continuing	Continuing	
Government Engineering Support	Various	Various		0.030	0.	125	10/02	0.124	10/03	0.12	4 10/04	Continuing	Continuing	
Program Management Support													0.000	
Travel													0.000	
Transportation													0.000	
SBIR Assessment													0.000	
Subtotal Management				0.214	0.	531		0.430)	0.23	0	0.000	1.405	
Remarks:														
Total Cost				4.790) 4.	906		3.314	1	3.33	2	Continuing	Continuing	
Remarks:			·			•								

EXHIBIT R4, Schedule																									DATE		Fe	ebrua	ry 20	03		
APPROPRIATION/BUDGET														R AND		Ξ					PROJ			R AN	D NAN	1E						
RDT&E, N /	BA-5	5							06042	31N T	actical	Comn	nand S	system							X3032	NTC	SS									
Fiscal Year		20	02			20	03			20	04			200	05			200	06			20	07			20	08			200)9	
	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 Milestones																																
Prototype Phase					х	х	Х	х	Х	х	х	х	х	х	х	Х																
Force-Level eNTCSS Development					х	Х	Х	Х	Х																							
MLDN and Enterprise DB Development									Х	Х	х	х	Х	Х	х	Х																
Software 1XXSW Delivery 2XXSW Delivery																																
Test & Evaluation Milestones Force-Level eNTCSS Development Test Operational Test MLDN and Enterprise DB Development Test Operational Test									х	х	x	х				X	x	x	x	x												
Production Milestones LRIP Force-level eNTCSS LRIP MLDN/Enterprise DB FRP Force-level eNTCSS FRP Force-level eNTCSS									Х			X				X					X											
Deliveries														PPIN					96													

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE:	ebruary 20	03
APPROPRIATION/BUDGET ACTIVITY	PROGRAM EI	LEMENT			PROJECT NU	MBER AND NA	AME	
RDT&E, N / BA-5	0604231N Tad	ctical Command	d System		X3032 NTCSS	8		
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Prototype Phase	Q3							
System Design Review (SDR)	Q4							
Milestone II (MSII)		Q1						
Contract Preparation		Q1						
Software Specification Review (SSR)		Q1						
Preliminary Design Review (PDR)		Q1						
System Development		Q2						
Critical Design Review (CDR)		Q2						
Quality Design and Build		Q2						
Test Readiness Review (TRR)		Q3						
Developmental Testing (Force-level eNTCSS)			Q1					
Eng Dev Model (EDM) Radar Delivery - Lab								
Force-level eNTCSS Software			Q1					
Preproduction Readiness Review (PRR)			Q2					
EDM Radar Delivery - Flt Related								
Milestone C (MS C)			Q3					
Operational Testing (Force-level eNTCSS)			Q3					
Start Low-Rate Initial Production I (LRIP I)								
MLDN and Enterprise DB Software				Q4				
Developmental Testing (MLDN/Enterprise DB)				Q4				
Developmental Testing (DT-IIB2)								
Start Low-Rate Initial Production II								
Operational Testing (MLDN/Enterprise DB)					Q2			
Developmental Testing (DT-IIC)					<u> </u>			
Functional Configuration Audit (FCA)								
Low-Rate Initial Production Force-level eNTCSS			Q1					
Technical Evaluation (TECHEVAL)			~ ~ .					
Physical Configuration Audit								
Operational Evaluation (OT-IIC) (OPEVAL)								
Low-Rate Initail Production MLDN/Enterprise DB				Q4				
IOC				<u> </u>				
Full Rate Production (Force-level eNTCSS)			Q4					
Full Rate Production (MLDN/Enterprise DB)			Ψ,			Q1		<u> </u>
First Deployment						<u> </u>		<u> </u>
i iist beployment								

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE:	
							Februar	y 2003
APPROPRIATION/BUDGET ACTIVITY								
RDT&E, N / BA-5	0604231N TACTIO	CAL COMMAND SY	/STEM	W9123 FORCEnet				
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	0.000	12.509	14.654	15.669	17.155	19.099	21.053	23.001
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: On 21 February 2002, in response to conclusions and recommendations from extensive studies by CNO Strategic Studies Group (1998-2002), Army (Future Combat System (FCS)), and Air Force (Joint Battlespace Info-Sphere (JBI)), CNO has directed a quantitative and rigorous analysis of the warfighting requirements and effects of Network Centric Warfare (NCW) across all of Naval Doctrine, Logistics, Tactics, Techniques, Procedures (TTPs), and Systems. The DFn designation letter directed that FORCEnet establish the Navy's future requirements for an end-to-end plan to transform its warfighters, organizations, TTPs, systems, platforms and technologies to a fully netted, integrated, and NCW capable force. FORCEnet transforms the NCW vision into an operational strategy through a transformational spiral development of the next generation of Naval warfighting capabilities. FORCEnet implements the Navy's Transformation Vision – Sea Power 21 — incrementally enhancing the Navy's fundamental asymmetric advantages (sea control, mobility, stealth, reach, precision, firepower and persistence) by integrating Naval, Joint and National information grids (including space based) to achieve unprecedented situational awareness and knowledge management increasing naval warfighting capabilities. Within the Secretary of Defense's Defense Planning Guidance for Fiscal Years 2003-2007, the Department of the Navy (DoN) has published the Naval Transformation Roadmap. FORCEnet, as a main component of CNO's Sea Power 21, referenced on pages 26-28; "will address the following SECDEF's critical operational goals:

- · Assure Information Systems and conduct effective Information Operations
- · Deny enemy sanctuary by providing persistent surveillance, tracking & rapid engagement with high-volume precision strike
- · Leverage IT to develop a joint C4ISR architecture and operational picture"

A key enabler of the CNO's Sea Power 21 Vision, FORCEnet represents the Navy's end-to-end concept, process and plan for evolutionary requirements transformation of its people and warfighting culture, processes, organizational structures, and technologies to a fully netted, integrated, and Network Centric force. FORCEnet will enable the three fundamental capabilities resident in Sea Power 21 – Sea Strike, the ability to project offensive power; Sea Shield, the ability to project defensive power; and Sea Basing, the ability to project U.S. sovereignty around the world and team with joint forces, afloat and ashore. FORCEnet supports Sea Strike by integrating fully networked forces and the 21st Century Warrior into joint and national systems. FORCEnet employs a reduced kill chain by utilizing a network of tiered sensors, vehicles, and platforms to rapidly accumulate and deliver a secure means of sharing knowledge for precision targeting and strike against both high tech and un-sophisticated threats. FORCEnet enables Sea Shield by defining and implementing the capabilities necessary to defend against asymmetric threats (ranging from swarms of small boats, mines, cruise and ballistic missiles, to other sophisticated weapons utilizing low-cost commercial technologies and massive computing power). FORCEnet will provide for the most efficient and effective combination of platforms, sensors, and weapons necessary to assure access and provide the foundation for battlespace dominance. Enhanced and fully integrated intelligence, surveillance and reconnaissance systems will provide critical cueing to support the tenets of Network Centric Warfare. FORCEnet supports Sea Basing as a force multiplier for combat forces, utilizing predictive and adaptive force formulation and instride sustainment. The level of total asset visibility afforded by FORCEnet provides the Operational Commander with acute awareness of the full range of available assets and capabilities – thereby enhancing flexibility, speed, efficiency and precision in c

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE:		
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME
RDT&E, N / BA-5	0604231N TACTICAL COMMAND SYSTEM	W9123 FORCEnet	

These tools and methods will provide a rigorous fact-based analysis built upon an open, scalable, multi-level secure architecture to align programs of record and identify system changes. To demonstrate the viability of the proposed roadmaps and the validity of the decision support system, a FORCEnet collaborative and virtual environment will be established to evaluate system changes through prototype, integration and implementation. FORCEnet will perform transformation master planning required across all management execution horizons (Near/Mid/Long-Term) evolving towards a fully-netted human-centrically optimized combat force structure. All transformational horizons will be supported by executable acquisition strategies using an integrated program order-of-buy approach. An integrated program order-of-buy will consist of mission capability platform and equipment roadmaps. Continual trades between acquisition, technology, cost, and capabilities will be performed to achieve a seamless integration of requirements across all warfighting mission areas.

The FORCEnet capability will achieve information superiority and dominance on the battlefield by effectively combining information, data, and intelligence gleaned from disparate sensors, networks, decision aids, weapons, and warriors transforming it into real-time comprehensive knowledge of the battlespace. It will leverage information as a resource, as a target, and as a weapon, to provide the effective links and the synergistic systems to allow people, platforms and sensors to communicate and collaborate, and to achieve a state of awareness and knowledge to optimize their mission effectiveness. FORCEnet is the unique vehicle to meet the CNO's requirement to analyze, develop, establish, and sustain a holistic approach to NCW requirements across all Naval warfighting missions. No existing Naval organization provides the analytical rigor across the breath of operational and programmatic warfighting dimensions of the Naval Force.

FORCEnet is not a program — it is a non-redundant integration and alignment effort with the following objectives:

1) Incremental FORCEnet requirements will be developed and validated to drive capability introduction to the fleet through a spiral development using an unprecedented decision support system i.e. FnCE, FnVE that aligns experimentation, existing programs, emerging initiatives, and science and technology.

2) FORCEnet Collaborative Environment (FnCE) that allow trades across operational, technical, financial and programmatic dimensions. Establish analytically defendable investment plans and mission capability platform and equipment roadmaps through qualitative and quantitative analysis. Cost vs. combat capability trades will be executed in conjunction with the FORCEnet virtual environment.

3) FORCEnet Virtual Environment (FnVE) where simulations, hardware and warriors are integrated to ensure real-time, joint test events and analytical products are captured as part of a disciplined implementation of NCW requirements in conjunction with the FnCE to develop cost vs. combat capability trades and roadmaps.

4) Limited Objective Experiments (LOEs) that focus on integrating tactics, techniques and procedures with rapid proto-typing and S&T to develop innovative operational concepts. Develop experimentation roadmaps to align with emerging initiatives and Fleet Battle Experiments.

5) Industry/Government/Joint Teaming through multiple LOEs, simulation and wargaming events.

Specific FORCEnet products include: (a) Validated FORCEnet requirements; (b) FORCEnet transformation roadmaps which will define the Navy and Marine Corps minimum executable combat capability required to support/sustain warfighting mission areas; (c) A dynamically reconfigurable set of metrics required to manage FORCEnet combat effects which interacts with the "Fact-Based Decision Model" taking into account financial and technical aspects; (d) A Fact-Based Decision software Model which will contrast investment decision versus warfighting capability; (e) An "Integrated Program Order of Buy" software Model required to prioritize combat systems investments based on their contribution to warfighter mission areas; (f) A collaborative capability required to demonstrate and study the various concepts of integrated warfare and combined force effects provided by FORCEnet; (g) all related acquisition strategies and management plans, program order-of-buys, and program execution plans; and (h) conduct experiments, document results and evaluate prototypes to recommend changes to doctrine, TT&Ps.

(U) FORCEnet TEAM AND PARTNERSHIPS:

- · OPNAV, CFFC/NETWARCOM, Navy Warfare Development Command (NWDC), ONR, SYSCOMs (NAVSEA, NAVAIR, SPAWAR, MCSC), and RDA CHENG
- · Supporting commands and activities: CNO SSG, CNO N00K, MCCDC, High Performance Computing Modernization Office, Naval Post Graduate School, U.S. Naval Academy, Naval War College, COMOPTEVFOR, NETC, DARPA, Army FCS, Air Force JBI, JFCOM and OSD

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Exhibit R-2a, RDTEN Project Justification (Exhibit R-2a, page 85 of 90)

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EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NA	AME
RDT&E, N / BA5	0604231N TACTICAL COMMAND SYSTEM	W9123 FORCEnet	

B. Accomplishments/Planned Program

	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	12.509	14.654	15.669
RDT&E Articles Quantity				

FORCEnet

Industry Survey & Alignment (Industry White Paper Requests, Industry White Paper Evaluation, Acquisition Wargaming, FORCEnet Refinement/Analysis of Requirements); Limited Objective Experiments (Alignment with EC5G, ESG, NFN, TFWeb and FBE-J/K, Alignment with FBE-L, tactics, techniques and procedures; Virtual Environment Test Events (Real-time, Joint, Integrated Hardware, Simulation, and Warriors, Platform/Equipment/Capability Roadmap based on Qualitative/Quantitative Data); Analytical Tools, Methods, Metrics (Requirements/Metrics Definition, Platform Survey, Collaborative Environment Development & Integration, Fact Based Decision Tools); Roadmaps, Analysis and Evaluation (Operational & Engineering Standards, Architecture Analysis, User Information Analysis & Use Case Framework); Collaborative Environment (Capability Alignment, Process Definition & Implementation, Configuration Management).

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	I				DATE:	February 2003
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUM	IBER AND NAM	E	AND NAME		
RDT&E, N / BA-5	0604231N TACTICAL COM	IMAND SYSTEM	Л	W9123 FORCEnet		
C. PROGRAM CHANGE SUMMARY:						
Funding:	FY 20	002 FY 200	03 FY 2004	FY 2005		
Previous President's Budget:		0.00				
Current BES/President's Budget	0.0	000 12.50	09 14.654			
Total Adjustments	0.0	000 12.50	09 14.654	15.669		
Summary of Adjustments						
Congressional program redu	ıctions	-7.00	00			
Congressional undistributed		-0.07	76			
Congressional rescissions						
SBIR/STTR Transfer						
Economic Assumptions		-0.4				
Other Navy/OSD Adjustments		20.0	00 15.000	16.007		
Reprogrammings						
Congressional increases Subtotal		000 12.5	09 14.654	15.669		
Gubiotal	0.	12.5	79 14.00-	13.009		
Schedule:						
N/A						
Technical:						
N/A						

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EXHIBIT R-2a, RDT&E	E Project Justification								DATE:			
										Februa	ry 2003	
APPROPRIATION/BUDGE				IBER AND NAM		PROJECT NU		NAME				
RDT&E, N /	BA-5		0604231N TACTICAL COMMAND SYSTEM				W9123 FORC	CEnet				
D. OTHER PROGRA	AM FUNDING SUMMARY:											
										То	Total	
Line Item No. & Na	<u>ame</u>	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	<u>Complete</u>	Cost	
N/A												
E. ACQUISITION STR	RATEGY:											
Not Applicable												
i												

Exhibit R-3 Cost Analysis (page 1)									DATE:		February 20	03	
APPROPRIATION/BUDGET ACTI			PROGRAM E	LEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604231N TA	ACTICAL COM	MAND SYSTE	М	W9123 FOR	CEnet					
Cost Categories	Contract Method & Type	Performing Activity & Location		Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	J									1	- Compress	0.000	1
Ancillary Hardware Development												0.000	
Aircraft Integration												0.000	
Ship Integration												0.000	
Ship Suitability												0.000	
Systems Engineering	CPFF	VARIOUS			0.800	01/03	1.000	11/03	1.00	0 11/04	Continuing	Continuing	
Training Development												0.000	
Licenses												0.000	
Tooling												0.000	
GFE												0.000	
Award Fees												0.000	
Subtotal Product Development				0.000	0.800		1.000	0	1.00	0	Continuing	Continuing	
Development Support	CPFF	VARIOUS			1.100	01/03	1.400	11/03	1.50	0 11/04	Continuing	Continuing	
Software Development	CPFF	VARIOUS			2.310	01/03	2.500	11/03	2.60	0 11/04	Continuing	Continuing	
Integrated Logistics Support												0.000	
Configuration Management												0.000	
Technical Data												0.000	
Studies & Analyses	FFP	VARIOUS			1.100	01/03	1.200	11/03	1.30	0 11/04	Continuing	Continuing	
GFE												0.000	
Award Fees												0.000	
Subtotal Support				0.000	4.510		5.100	D	5.40	0	Continuing	Continuing	
Remarks:				0.000	4.510		5.100	D	5.40	0	Continuing	Continuing	<u> </u>

CLASSIFICATION:

D													
Exhibit R-3 Cost Analysis (pag							February 2003						
APPROPRIATION/BUDGET ACTIV	İTY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604231N TA	CTICAL COM	MAND SYSTE	M	W9123 FORC	Enet					
Cost Categories	Contract	Performing		Total		FY 03		FY 04		FY 05			
	Method	Activity &			FY 03	Award	FY 04	Award		Award	Cost to	Total	Target Value
	& Type	Location		Cost	Cost	Date	Cost	Date		Date	Complete	Cost	of Contract
Developmental Test & Evaluation	CPFF	VARIOUS			0.500	01/03	0.700	11/03	0.800	11/04	Continuing	Continuing	
Operational Test & Evaluation												0.000	
Live Fire Test & Evaluation												0.000	
Test Assets												0.000	
Tooling												0.000	
GFE												0.000	
Award Fees												0.000	
Subtotal T&E				0.000	0.500		0.700		0.800		Continuing	Continuing	
Contractor Engineering Support	FFP	VARIOUS			1.500	10/02	1.700	10/03	1.800	10/04	Continuing	Continuing	
Government Engineering Support	WR	VARIOUS			4.100	10/02	4.900	10/03	5.200	10/04	Continuing	Continuing	
Program Management Support	FFP	VARIOUS			0.800	10/02	0.900	10/03	1.000	10/04	Continuing	Continuing	
Travel	VARIOUS	VARIOUS			0.299	10/02	0.354	10/03	0.469	10/04	Continuing	Continuing	
Transportation												0.000	
SBIR Assessment												0.000	
Subtotal Management				0.000	6.699		7.854		8.469		Continuing	Continuing	
Remarks:													
Total Cost				0.000	12.509		14.654		15.669		Continuing	Continuing	
Remarks:													