CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification					DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY **RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5**					R-1 ITEM NOMENCLATURE 0604231N - TACTICAL COMMAND SYSTEM		
COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	63.916	64.003	74.225	85.773	85.221	71.313	55.243
2213 MISSION PLANNING	14.627	9.221	35.279	37.627	32.013	20.473	9.560
0486 TACTICAL/MOBILE (TACMOBILE) SYSTEMS	1.163	1.121	1.478	1.516	1.549	1.554	1.598
0521 SHIPBOARD TACTICAL INTEL/GCCS-M INTELLIGENCE APPLICATIONS	2.939	2.945	1.139	3.717	3.789	3.845	3.914
0709 GCCS-M MARITIME APPLICATIONS	5.984	7.059	12.016	13.206	15.340	13.414	7.547
2009 TRUSTED INFORMATION SYSTEMS/JOINT CROSS DOMAIN EXCHANGE (JCDX)	1.464	2.116	1.690	1.562	1.379	0.385	0.396
2305 GCCS-M COMMON APPLICATIONS	9.721	9.632	4.285	5.719	6.952	7.177	7.414
2307 SHIPBOARD LAN/WAN/INTEGRATED SHIPBOARD NETWORK SYSTEMS	2.309	3.006	3.112	3.260	3.322	3.331	3.408
3032 NTCSS ENTERPRISE DATABASE AND MLDN	3.923	0.047	0.045	0.052	0.050	0.050	0.051
9123 FORCENET	15.234	15.256	15.181	19.114	20.827	21.084	21.355
9999 CONGRESSIONAL INCREASES	6.552	13.600	0.000	0.000	0.000	0.000	0.000

(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.

GCCS-M: 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 FORCEnet Command, Control, Communications, Computers, Intelligence and Reconnaissance (C4ISR) strategy, and is the Navy's tactical implementation of the Global Command and Control System (GCCS). GCCS-M has aggressively pursued an evolutionary acquisition strategy in rapidly developing and fielding new Command, Control, Communications , Computers and Intelligence (C4I) capabilities for GCCS-M Afloat and GCCS-M Ashore TacMobile and Trusted Information Systems (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 Universal Network Information Exchange (UNIX)/personal computer (PC)/commercial-off -the-shelf (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. In FY05, GCCS-M will begin migration to Joint Command and Control (JC2) development in coordination with the Joint Command and Control (JC2) Program.

Tactical/Mobile (TacMobile) Systems, formerly Tactical Support Center/GCCS-M TACMOBILE: The TacMobile program provides evolutionary systems and equipment upgrades to support Maritime Surveillance 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), the Mobile Operations Control Centers (MOCCs), the Joint Mobile Ashore Support Terminals (JMASTs), and their equivalents. 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.

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE:
	February 2006

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5	0604231N - TACTICAL COMMAND SYSTEM

Trusted Information Systems (TIS): Trusted Information Systems (TIS) is a combination of the Joint Cross Domain eXchange (JCDX) system (formerly Ocean Surveillance Information System (OSIS) Evolutionary Development (OED)) and Radiant Mercury (RM), incorporating Multi-Level Security (MLS) web technologies and Multiple Levels of Security technologies in order to successfully provide accredited Cross Domain Solutions (CDS). Provides the core on-line, automated, near-real time, multi-level secure, information analysis, dissemination, and receipt capabilities that enable Combatant Commanders 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. JCDX 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.

Shipboard Local Area Network (LAN)/Wide Area Network (WAN) - Integrated Shipboard Network Systems (ISNS): The Integrated Shipboard Network Systems (ISNS) provides Navy ships with reliable, high-speed SECRET and UNCLASSIFIED Local Area Networks (LANs), providing the network infrastructure (switches and drops to the PC), Basic Network Information Distribution Services (BNIDS) and access to the Defense Information Security Network (DISN) Wide Area Network (WAN) (Secure and Nonsecure Internet Protocol Router Network (SIPRNET and NIPRNET) which are used by other hosted applications or systems such as Naval Tactical Command Support System (NTCSS), Global Command and Control System - Maritime (GCCS-M), Defense Messaging System (DMS), Navy Standard Integrated Personnel System (NSIPS), Navy/Marine Corps Portal (NMCP), Naval Mission Planning System (NAVMPS), Theater Battle Management Core Systems (TBMCS), and Tactical Tomahawk Weapons Control System (TTWCS) . It enables real-time information exchange within the ship and between afloat units, Component Commanders, and Fleet Commanders and is a key factor in the implementation of the Navy's portion of Joint Vision 2020. Funding supports the design, development and testing of the ISNS LAN for surface ships.

CENTRIXS - The Combined Enterprise Regional Information Exchange System (CENTRIXS) program provides Navy ships with a reliable, high-speed Local Area Network (LAN) that will provide access to the coalition (Coalition Four-Eyes (CFE), Global Counter Terrorism Task Force (GCTF), NATO Information Data Transfer System, Multinational Coalition Force Iraq (MCFI), CENTRIXS J and K, and all other bilateral and Community of Interest (COI)) Wide Area Network (WAN). It provides real-time information exchange between afloat units, Component Commanders, numbered Fleet Commanders and Commanders Atlantic (LANT)/Pacific (PAC) Fleet through the migration of existing legacy systems into the ISNS 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 capability. The CENTRIXS program maximizes the use of both COTS software and hardware resulting in dependence of commercial support. Engineering and technical support is provided so that existing systems will be upgraded/modified to keep pace with the commercial community.

Project funding supports the development of acquisition documentation essential to the program. The goal for the CENTRIXS program is to provide a cost-efficient operationally effective network that dramatically reduces the infrastructure requirements, while maximizing operational flexibility in a coalition environment. Multi-Level Tactical Coalition (MLTC) initiatives include Server Virtualization Development, which provides the ability to run multiple virtual servers on a single server. Additionally, this funding provides design, developing and testing of the Unit level Multi-Level Security (MLS)/MLTC system that will reduce drop requirements while minimizing server and client footprint and migration testing with the existing Force level design from Citrix software to Microsoft software baseline will reduce software costs.

Submarine Local Area Network (SubLAN): The SubLAN program provides Navy submarines, with reliable, high-speed SECRET and UNCLASSIFIED Local Area Networks (LANs). When the SubLAN network is combined with other subsystems, it will deliver an end to end network-centric warfare capability. The SubLAN program is comprised of two increments - SubLAN 1 and SubLAN 2. SubLAN 1 provides network infrastructure including an Unclassified Wireless Local Area Network (UWLAN), servers, and the Common PC Operating System Environment (COMPOSE), which provides the server and operating system environment for other applications such as Non Tactical Data Processing System (NTDPS) and Navy/Marine Corps Portal (NMCP). SubLAN 2 provides a full complement of SIPRNET drops, Special Compartmented Information (SCI) drops, additional switch/backbone capacity, and improved reliability upgrades to SubLAN 1. Funding supports the design, development and testing of the SubLAN for submarines.

R-1 SHOPPING LIST - Item No.   91

EXHIBIT R-2, RDT&E Budget Item Justification	DATE:
	February 2006

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA-5	0604231N - Tactical Command System

Navy Tactical Command Support System (NTCSS) Enterprise Database and Maritime Logistics Data Network (MLDN): This RDT&E Project funding supports design, development and testing of two components of the 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.

Mission Planning: The goal of the Naval Mission Planning System (NavMPS) Program Team is to develop scaleable, extensible, and configurable planning systems to meet a full range of automated mission planning needs. NavMPS products (includes the Joint Mission Planning System (JMPS)) provides the information, automated tools, and decision aids needed to rapidly plan aircraft, weapon, or sensor missions and post-mission analysis of recorded data. JMPS is a co-development effort between the United States Navy (USN), United States Air Force (USAF), United States Army (USA), and United States Special Operations Command (USSOCOM) under the Multi-Service Joint Enterprise Management Team (JEMT). Requirements are identified and capabilities are developed in an evolutionary concept in order to address world situation requirements for mission planning and precision guided missile deployment.

Congressional Increases:

FY 05 includes Congressional increases for 3D Common Operational Picture (COP) and AN/UYQ-70 Based IT-21 C4ISR upgrades.

FY06 includes Congressional increases for Tactical 3D Common Operational Picture (COP), AN/UYQ-70 Based IT-21 C4ISR upgrades, ACETEF upgraded RDT&E capability, Advanced Technology Sensor Payloads, and Naval Special Warfare UUV Sensors and C2 STTR.

| EXHIBIT R-2, RDT&E Budget Item Justification | DATE: |
| | **February 2006** |

| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE |
| **RESEARCH DEVELOPMENT TEST & EVALUATION, NA BA-5** | 0604231N - Tactical Command System |

(U) B. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2005	FY 2006	FY 2007
FY06 President's Budget	59.499	51.177	50.640
FY07 President's Budget	63.916	64.003	74.225
Total Adjustments	4.417	12.826	23.585

Summary of Adjustments

	FY 2005	FY 2006	FY 2007
FORCEnet-A20-RP-Realign TacMobile Funding from PE 0204660N (O&M,N) to correct appropriation			0.421
FORCEnet Joint Mission Planning System			27.200
Global Command and Control - Maritime (GCCS-M)			1.000
Contract Support Reduction			-2.852
Navy Working Capital Fund (NWCF) Civilian Personnel (CIVPERS) Efficiencies			-0.168
UHF SATCOM Integrated Waveform			-2.500
Navy Tactical Command Support System (NTCSS) Enterprise Database	6.000		
Small Business Innovation Research (SBIR)	-1.254		
Nuclear Physical Security	0.012		
FY05 Omnibus Reprogramming of funds	-2.000		
Trusted Foundry	0.086		
Inflation Rate Change			0.418
Civilian Personnel Pay Raise Rate Changes			0.064
Section 8026(f): Federally Funded Research and Development Centers		-0.004	
Section 8125: Revised Economic Assumptions		-0.235	
Section 8122: Assumed Management Improvements	-0.018		
Section 8131: Non-Statutory Funding Set Asides	-0.035		
Department of Energy Transfer	-0.050		
Congressional Adds		13.600	
Congressional Action 1% Reduction		-0.535	
Miscellaneous Navy Adjustments	1.676		0.002
Subtotal	4.417	12.826	23.585

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CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE:
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APPROPRIATION/BUDGET ACTIVITY **RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA-5**	R-1 ITEM NOMENCLATURE 0604231N - Tactical Command System

(U) B. PROGRAM CHANGE SUMMARY (Continued):

(U) Schedule:

Mission Planning (project 2213)

Schedule: Acquisition Milestones from President's Budget FY05 (JV1=JMPS V1.0 and JC1=JMPS V1.1 to follow software configuration naming convention)

GENERAL INFORMATION:

TEST AND EVALUATION MILESTONES
Unique Planning Component (UPC) changed to Mission Planning Environment (MPE). MPE System Test and Integration/Validation dates changed to 1Q-4Q FY04.
JMPS V1.1 Operational Test Readiness Review (OTRR) was completed 2Q FY05.

PRODUCTION MILESTONES
JMPS V1.1 official Initial Operating Capability (IOC) date, as a result of a formalized OTRR event, for the fielding of the F/A-18 19C/JMPS MPE, is scheduled for 1Q FY06. JMPS V1.1 was approved for a very limited fielding release with the E-2C MPE after an Operational Assessment in September 04 (4Q FY04).

JMPS V1.2.3 and related milestones are identified
JMPS V1.2.3/1.2.4 FQT is planned for 2Q/3Q FY05, respectively. OTRR is planned for 2Q/3Q FY06 respectively.
JMPS V1.5 to 1.8 and related milestones are identified.

TacMobile Systems (project 0486)

Schedule updated to reflect reactivation of the TacMobile program as a post-milestone C Acquisition Category (ACAT) III program, separate but related to the GCCS-M program.

ShipBoard Tactical Intel/GCCS-M Intelligence Applications (project 0521)/GCCS-M Maritime Applications (project 0709), and GCCS-M Common
 Applications (project 2305)

Schedule reflects planned convergence with Joint Command and Control (JC2), Full Rate Production (FRP) for GCCS-M software version 4.0 and Milestone B for version 4.1.

(U) Technical: Not applicable

R-1 SHOPPING LIST - Item No. 91

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2006

APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /**	**BA 5**	PROGRAM ELEMENT NUMBER AND NAME **0604231N, TACTICAL COMMAND SYSTEM**	PROJECT NUMBER AND NAME 2213 MISSION PLANNING (NavMPS)

COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
2213 MISSION PLANNING	14.627	9.221	35.279	37.627	32.013	20.473	9.560	
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 is a Defense Information Infrastructure/Common Operating Environment (DII/COE) compliant 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/XP core/framework, a mission-planning infrastructure of basic databases, management tools, and framework services, as well as common mission planning components. An individual JMPS mission-planning environment (MPE) is a combination of the JMPE together with platform/service unique planning components and the necessary system hardware to meet user mission planning needs.

EXHIBIT R-2a, RDT&E Project Justification		DATE:
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APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /	**BA 5**	**0604231N, TACTICAL COMMAND SYSTEM**	2213 MISSION PLANNING (NavMPS)

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost			1.830	
RDT&E Articles Qty				

Common Capabilities (CC) software augments core mission planning capabilities with capabilities common among a group of planners. CC is a software module, installable into the Mission Planning Environment (MPE) that contains an extension of the basic mission planning capability, which is useful to more than one aircraft platform. CC will be developed as common software tools to automate mission planning in the expeditionary operations and maritime environments. CC such as Mission Rehearsal, Collaboration, Query and Process Imagery, Intel, Communications Planning, Asset Management, Anti-Submarine Warfare (ASW), etc. Portable Flight Planning Seat (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.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost			1.500	
RDT&E Articles Qty				

JMPS Framework Version 1.6 will overlap with Framework Version 1.5. The contract award date for FW Version 1.6 is scheduled for early 2007. Navy MPEs will be continuing their development efforts to capture additional common capabilities, as well as, developing to a potential new operating system (Longhorn). The increase in funding for FW 1.6 will be used to support the Navy's DT/OT support, integration and systems of systems testing of MPEs to capture planned common capabilities.

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 7)

EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2006

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA 5	PROGRAM ELEMENT NUMBER AND NAME 0604231N, TACTICAL COMMAND SYSTEM	PROJECT NUMBER AND NAME 2213 MISSION PLANNING (NavMPS)

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost			10.500	
RDT&E Articles Qty				

JMPS Framework Version 1.5 is scheduled for contract award early in 2006 and its development timeframe will overlap with FW Version 1.6. Previous funding constraints prohibited the current Navy MPEs from migrating to FW. Versions 1.3 and 1.4 with the AF MPEs. The increase in funding for FW 1.5 will be used to support the Navy's DT/OT support , integration and systems of systems testing of MPEs to capture planned common capabilities. Additionally, the Navy's UPCs will be faced with migrating to a ".net" environment post AF MPEs' migration effort during FW 1.3/1.4 timeframe. Scheduled capabilities for this framework include battle space net centric environment functionality, and Global Information Grid - Enterprise Services (GIG-ES). Additional common capabilities will also include Dynamic Replanning and retargeting efforts.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	8.801	7.862	20.249	
RDT&E Articles Qty				

JMPS 1.0 and 1.1 Development Effort-JMPS 1.0 and 1.1 effort will include DT/OT support for JMPS Mission Planning Environments (MPEs) fielding, assessment of JMPS 1.1, builds to correct discrepancies discovered during systems of systems integration testing, and contract incentive fee. All JMPS 1.1 efforts, including engineering assessments, logistics and management support will be ending in CY 2005. Post CY 2005, subsequent MPEs will ultimately be migrating to FW 1.5.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	5.826	1.359	1.200	
RDT&E Articles Qty				

JMPS Version 1.2.3 efforts, DOD/CIO mandate for IPV6 with the migration to XP operating system, will be complete by end of 2006. Future framework and MPE efforts will be developed on framework 1.5 and subsequent frameworks, i.e., 1.6, 1.7, 1.8.

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /	**BA 5**	**0604231N, TACTICAL COMMAND SYSTEM**	2213 MISSION PLANNING (NavMPS)

C. OTHER PROGRAM FUNDING SUMMARY	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
BLI 287600 TAC A/C Mission Planning System (OPN)	9.035	7.753	8.316	8.648	8.842	9.006	9.151	Continuing	Continuing
PE 0208006F Air Force Mission Support System (Total)	105.003	138.475	130.626	102.900	96.489	98.685	99.822	Continuing	Continuing

D. ACQUISITION STRATEGY: The Joint Mission Planning System (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. Phase I was a combined USAF/USN effort that obtained various studies, segment architect concept, design to cost estimates, and an architecture development statement of work. The Program's Phase I was planned to identify reduced costs strategies through software reuse from both USN Tactical Automated Mission Planning System (TAMPS) and USAF Air Force Mission Support System (AFMSS) legacy mission planning programs. Additionally, this phase provided a risk reduction plan by identifying the most effective migration of existing mission planning systems. Phase I was awarded to two contractors. Post Phase I, during the down select process, one contractor was selected to develop the JMPS architecture work and Version 1.0 mission planing components. After Version 1 components have been developed, Version 1.1 component development will commence. Version 1.1 component development is required to retire TAMPS for the USN and meet F-15 planning requirements for the AF. Version 1.1 will be developed under a separate architect framework contract. All other combat and force level components will be acquired through a mission planning enterprise and open competition.

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 9)

								DATE:				
Exhibit R-3 Cost Analysis (page 1)								February 2006				

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT					PROJECT NUMBER AND NAME					
RDT&E, N /	BA 5	0604231N, TACTICAL COMMAND SYSTEM					2213 MISSION PLANNING					

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Common Capabilities	MIPR	DEPARTMENT OF THE AIR FORCE, Hanscor						1.830	11/15/2006	Continuing	Continuing	
Framework 1.5	MIPR	DEPARTMENT OF THE AIR FORCE, Hanscor						10.500	11/15/2006	Continuing	Continuing	
Framework 1.6	MIPR	DEPARTMENT OF THE AIR FORCE, Hanscor						1.500	11/15/2006	Continuing	Continuing	
Primary Software Dev JMPS 1.2.3	SS/CPIF	NGIT, VA	76.697	5.826	11/15/2004	1.359	11/15/2005	1.200	11/15/2006		12.222	
SUBTOTAL PRODUCT DEVELOPMEN			76.697	5.826		1.359		15.030			12.222	
Remarks:												
SUPPORT												
Integrated Logistics Support	WX/RX	SPAWAR, Phila, PA	6.440	1.189	11/15/2004	1.189	11/15/2005	6.189	11/15/2006	Continuing	Continuing	
SUBTOTAL SUPPORT			6.440	1.189		1.189		6.189		Continuing	Continuing	
Remarks:												
TEST & EVALUATION												
Test and Evaluation	WX	NAWCWD, Pt. Mugu, CA	3.515	4.097	11/15/2004	4.040	11/15/2005	10.802	11/15/2006	Continuing	Continuing	
SUBTOTAL TEST & EVALUATION			3.515	4.097		4.040		10.802		Continuing	Continuing	
Remarks:												
MANAGEMENT												
Management	WX	NAWCAD, Pax River, MD	15.704	3.515	11/15/2004	2.633	11/15/2005	3.258	11/15/2006	Continuing	Continuing	
SUBTOTAL MANAGEMENT			15.704	3.515		2.633		3.258		Continuing	Continuing	
Remarks:												
Total Cost			102.356	14.627		9.221		35.279		Continuing	Continuing	
Remarks:												

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

DATE:
February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /	0604231N Tactical Command System	2213 MISSION PLANNING

Fiscal Year	2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Acquisition Milestones

JMPS V1.1 UPCRR

JMPS V1.1 OA (DT ASSIST)

JMPS V1.1 OTRR — ▲ (2005 Q2)

JMPS V1.1 OT — ▲ (2006 Q1)

JMPS V 1.2.3/1.2.4 OTRR — △ (2006 Q2), △ (2006 Q3)

JMPS V 1.2.3/1.2.4 OT — △ (2006 Q2), △ (2006 Q3)

JMPS V 1.5 to V 1.8 OT — △ (2008 Q1), △ (2009 Q1), △ (2010 Q1), △ (2011 Q1)

Test & Evaluation Milestones

JMPS V 1.1 System Test — ■ (2005 Q1–Q3)

MPE Integration/Validation — ■ (2005 Q1–Q3)

JMPS V 1.2.3/1.2.4 FQT — ▲ (2005 Q3), ▲ (2005 Q4)

JMPS V 1.2.3/1.2.4 DT — ▲ (2005 Q3), ▲ (2005 Q4)

JMPS V 1.2.3/1.2.4 System Test — ■ (2005 Q3–Q4)

Production Milestones

JMPS V1.1 IOC — ▲ (2006 Q1)
JMPS V 1.2.3/1.2.4 IOC — △△ (2006 Q4)
JMPS V 1.5 to V 1.8 IOC — △ (2008 Q2), △ (2009 Q2), △ (2010 Q2), △ (2011 Q3)

Deliveries

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 11)

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**				PROJECT NUMBER AND NAME 2213 MISSION PLANNING		
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Acquisition Milestones							
JMPS V 1.1							
JMPS 1.1 UPCRR							
JMPS 1.1 OA (DT ASSIST)							
JMPS 1.1 OTRR	2Q						
JMPS 1.1 OT		1Q					
JMPS V1.2.3/1.2.4							
JMPS V 1.2.3/1.2.4 OTRR		2Q/3Q					
JMPS V 1.2.3/1.2.4 OT		2Q/3Q					
JMPS V 1.5 to 1.8							
JMPS V 1.5 to 1.8 OT				1Q	1Q	1Q	1Q
Test & Evaluation Milestones							
JMPS V 1.1							
System Test	1Q-2Q						
MPE Integration/Validation	1Q-2Q						
JMPS 1.2.3/1.2.4							
JMPS 1.2.3/1.2.4 FQT	3Q/4Q						
JMPS DT	3Q/4Q						
System Test JMPS V 1.2.3/1.2.4	3Q-4Q						
JMPS V 1.5 to 1.8 FQT			3Q	3Q	3Q	3Q	
Production Milestones							
JMPS V 1.1 IOC		1Q					
JMPS V 1.2.3/1.2.4 IOC		4Q/4Q					
JMPS V 1.5 to 1.8 IOC				3Q	3Q	3Q	3Q

R-1 SHOPPING LIST - Item No.   91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 12)

EXHIBIT R-2a, RDT&E Project Justification				DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - TACTICAL COMMAND SYSTEM		PROJECT NUMBER AND NAME 0486 Tactical/Mobile (TacMobile) Systems			
COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	1.163	1.121	1.478	1.516	1.549	1.554	1.598
RDT&E Articles Qty							

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

Tactical/Mobile (TacMobile) Systems, formerly Tactical Support Center/GCCS-M TACMOBILE: The 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), the Mobile Operations Control Centers (MOCCs), and the Joint Mobile Ashore Support Terminal (JMAST). 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 and their equivalents provide C4I capability, air-ground, satellite and point-to-point communications systems; sensor analysis capabilities; avionics and weapons system interfaces and facilities equipment. MOCCs and their equivalents are scalable and mobile versions 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 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 Maritime Aircraft (MMA) and Broad Area Maritime Surveillance Unmanned Aerial Vehicle (BAMS UAV).

The Joint Mobile Ashore Support Terminal (JMAST) supports the Fleet Commanders, Joint Task Force (JTF) Commanders, deployed Components, and other military commanders from forward deployed bases or operational sites ashore that are not equipped with C4I facilities. It provides the JTF, Navy Component, and other military commanders with the mobile ability to command, control and communicate with assigned forces via voice, video, and data media forms, during all aspects of military operations, including joint, combined, and coalition operations.

The TacMobile program has been designated as an Acquisition Category (ACAT) III weapons system program by Program Executive Office (PEO) C4I and Space and is no longer directly associated with the GCCS-M program. The TacMobile program follows an Evolutionary Acquisition approach, which provides a mechanism for adding a series of future capabilities that maintain and enhance the operational relevance of the systems provided.

R-1 SHOPPING LIST - Item No. 91

EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604231N - Tactical Command System	0486 Tactical/Mobile (TacMobile) Systems

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.199	0.205	0.140
RDT&E Articles Quantity			

Develop interface documentation based on joint and coalition Satellite Communications (SATCOM) and line of sight radios, cryptographic units and antenna technology. Continued development activities necessary to stay current with joint and coalition SATCOM and line of sight radios, cryptographic units, antenna technology and the USN/DoD satellite replacement programs. Perform necessary analysis and update TacMobile technical Roadmap documentation to ensure compliance with Navy and Joint communications interoperability requirements (Forcenet, Global Information Grid (GIG), etc) and implementations that support network-centric (NetCentric), Internet Protocol (IP) addressing.   Conduct testing of air platform support systems and data exchange devices for incorporation into baseline systems for deployment.

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.453	0.350	0.350
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. Developed a detailed set of requirements for follow-on system to include NetCentric, IP addressable functionality. Continued development of new capabilities to support post-flight analysis of acoustic data collected from similar capabilities development for Maritime Patrol and Reconnaissance Aircraft (MPRA).

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CLASSIFICATION:

| EXHIBIT R-2a, RDT&E Project Justification | DATE: |
| | **February 2006** |

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604231N - Tactical Command System	0486 Tactical/Mobile (TacMobile) Systems

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.355	0.338	0.217
RDT&E Articles Quantity			

Develop new capabilities to support emerging aircraft weapons and non-acoustic sensors on P-3C Anti-Submarine Warfare (ASW) Improvement Program (AIP)/ASW Maritime Improvement Program (AMIP), P-3C Baseline Modification Upgrade Program (BMUP), and other derivative aircraft. Analyze Broad Area Maritime Surveillance Unmanned Aerial Vehicles (BAMS UAV) and Multi-mission Maritime Aircraft (MMA) specifications and concept documents for impact on TSC and MOCC systems. Developed Aircraft Tape Operating System (ATOS) interfaces for emerging aircraft data transport devices. Develop new ground support capabilities concurrently with related, new capabilities developed for Maritime Patrol and Reconnaissance Aircraft (MPRA).

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.156	0.228	0.350
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. Continued to develop interfaces for emerging aircraft data transport devices. Performed testing on new software and hardware components. Perform necessary analysis and update TacMobile Roadmap documentation to ensure compliance with Navy and Joint sensor interoperability requirements (Forcenet, GIG, etc.) and implementations that support NetCentric, IP addressable capabilities.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604231N - Tactical Command System	0486 Tactical/Mobile (TacMobile) Systems

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.421
RDT&E Articles Quantity			

Investigate and initiate transition to Service Oriented Architecture (SOA) and NCES elements for TacMobile capabilities. Perform necessary analysis and update TacMobile Roadmap and documents in support of FORCEnet, GiG and other architectures (Net Ready Key - Performance Parameters (NR-KPP), Internet Service Provider (ISP), etc). Develop detailed requirements linking TacMobile systems and development directly to Forcenet, GiG and next generation communications systems. Perform necessary analysis for GiG repository capabilities for existing legacy and future Maritime Patrol and Reconnaissance Aircraft (MPRA) operations. Investigate and initiate requisite level of support for Distributed Common Ground System-Navy (DCGS-N) capabilities in TacMobile community. Perform necessary analysis to plan and implement network enabled MPRA required components of Undersea Warfare Decision Support System (USW DSS).

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 16)

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - TACTICAL COMMAND SYSTEM	0486 Tactical/Mobile (TacMobile) Systems

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
TacMobile (OPN - BLI 2246)	5.066	5.200	5.238	5.418	17.684	22.374	22.824
TacMobile (OPN - BLI 2608)	10.707	12.139	5.856	6.014	12.683	15.955	16.852

(U) D. ACQUISITION STRATEGY:

Evolutionary acquisition.   Increment 1 supports Fleet introduction of GCCS-M 4.0 and aircraft systems upgrades. Future increments will support the GCCS-M /JC2 migration, and introduction of the P-8A Multi-mission Maritime Aircraft (MMA).

(U) E. MAJOR PERFORMERS:

Space and Naval Warfare Systems Command (SPAWAR) Systems Center Charleston (SSC-CH) performs all design, development and integration of new capabilities into the Tactical/Mobile systems.

(U) G. METRICS:

Earned Value Management is used for metrics reporting and risk management.

R-1 SHOPPING LIST - Item No.   91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 17)

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 0486 Tactical/Mobile (TacMobile) Systems						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	WX	SSC CH	19.328	0.308	VARIOUS	0.290	VARIOUS	0.521	VARIOUS	Continuing	Continuing	
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			19.328	0.308		0.290		0.521		Continuing	Continuing	
Remarks:												
Development Support											0.000	
Software Development	WX	SSC CH	34.620	0.595	VARIOUS	0.581	VARIOUS	0.627	VARIOUS	Continuing	Continuing	
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			34.620	0.595		0.581		0.627		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No.   91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 18)

CLASSIFICATION:

						DATE:					
Exhibit R-3 Cost Analysis (page 2)							**February 2006**				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604231N - Tactical Command System			0486 Tactical/Mobile (TacMobile) Systems					

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation	WX	OPTEVFOR	3.225	0.060		0.040		0.060		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			3.225	0.060		0.040		0.060		Continuing	Continuing	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	WX	SSC CH	10.731	0.200	VARIOUS	0.210	VARIOUS	0.270	VARIOUS	Continuing	Continuing	
Travel											0.000	
Transportation											0.000	
											0.000	
Subtotal Management			10.731	0.200		0.210		0.270		Continuing	Continuing	
Remarks:												
Total Cost			67.904	1.163		1.121		1.478		Continuing	Continuing	
Remarks:												

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 19)

CLASSIFICATION:

EXHIBIT R4, Schedule Profile		DATE: **February 2006**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /** **BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - TACTICAL COMMAND SYSTEM	PROJECT NUMBER AND NAME 0486 Tactical/Mobile (TacMobile) Systems, formerly Tactical Support Center/GCCS-M TACMOBILE

Schedule Profile showing Fiscal Years 2004–2011 (quarters 1–4 each).

Acquisition Milestones:
- Inc 1 FRP — FY2005 Q3
- Inc 2 MS C — FY2007 Q3
- Inc 3 MS C — FY2009 Q1
- Inc 2 FRP — FY2009 Q1
- Inc 3 FRP — FY2010 Q1
- Inc 4 MS C — FY2010 Q1
- Inc 4 FRP — FY2011 Q1

Prototype Phase

Development / Integration

Delivery:
- Inc 1 IOC (TSC/MOCC) — FY2005 Q3
- Inc 1 IOC (JMAST) — FY2006 Q1

Software Deliveries: Quarterly Patches & Updates (FY2004 Q2 through FY2011 Q4)

Test & Evaluation Milestones:
- Development Test
- Operational Test:
  - Inc 1 OT (TSC/MOCC) — FY2005 Q1
  - Inc 1 OT (JMAST) — FY2006 Q1
  - Inc 2 OT — FY2008 Q1
  - Inc 3 OT — FY2009 Q2
  - Inc 4 OT — FY2010 Q2

Production Milestones

Deliveries

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**		PROGRAM ELEMENT 0604231N - TACTICAL COMMAND SYSTEM			PROJECT NUMBER AND NAME 0486 Tactical/Mobile (TacMobile) Systems, formerly Tactical Support Center/GCCS-M TACMOBILE			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Software Delivery (quarterly)	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4
Operational Test (Increment 1) (TSC/MOCC)		Q2						
Full Rate Production (Increment 1)		Q4						
Initial Operational Capability (Increment 1) (TSC/MOCC)			Q1					
Developmental Test (Increment 1) (JMAST)			Q2					
Operational Test (Increment 1) (JMAST)			Q3					
Initial Operational Capability (Increment 1) (JMAST)				Q1				
Developmental Test (Increment 2)				Q4				
Milestone C (Increment 2)					Q1			
Operational Test (Increment 2)					Q3			
Full Rate Production (Increment 2)						Q1		
Developmental Test (Increment 3)					Q4			
Milestone C (Increment 3)						Q1		
Operational Test (Increment 3)						Q3		
Full Rate Production (Increment 3)							Q1	
Developmental Test (Increment 4)						Q4		
Milestone C (Increment 4)							Q1	
Operational Test (Increment 4)							Q3	
Full Rate Production (Increment 4)								Q1

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 21)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**		PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System		PROJECT NUMBER AND NAME 0521 Shipboard Tactical Intel/GCCS-M Intelligence Applications			
COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	2.939	2.945	1.139	3.717	3.789	3.845	3.914
RDT&E Articles Qty							

(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 the Modernized Integrated Database (MIDB) 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. In FY05, GCCS-M will begin migration to the Joint Command and Control (JC2) architectural framework in coordination with the Joint Command and Control (JC2) Program. Efforts in FY06-07 will support the continued migration
 of capabilities as the JC2 architecture is further refined.

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604231N - Tactical Command System	0521 Shipboard Tactical Intel/GCCS-M Intelligence Applications

(U) B. Accomplishments/Planned Program

C2 Fires Integration	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.850	0.849	0.328
RDT&E Articles Quantity			

FY05 - Command and Control (C2)/Intelligence, Surveillance and Reconnaissance (ISR) Integration: Provided a standard set of integrated, linked, tools and services that access existing National, Theater, Service, and Coalition imagery and intelligence resources.   Accomplishments included a successful Operational Evaluation (OPEVAL) of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 in underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - C2/ISR Integration : Provide for the continued migration of standardized, linked intelligence and imagery software tools and services to the Joint Command and Control architectural framework.

FY07 - C2/ISR Integration : Continue to provide for the migration of standardized, linked intelligence and imagery software tools and services to the Joint Command and Control architectural framework.

Imagery/Video Processing	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.631	0.661	0.217
RDT&E Articles Quantity			

FY05 - Imagery Exploitation: Provided the capability to access and perform manual and automated correlation of national, organically collected, and other imagery and full motion imagery with multiple, dissimilar sources. Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 in underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Imagery Exploitation: Provide the capability for Commanders, their battle staffs, and supporting intelligence analysts to exploit ISR from current/next generation UAV platforms and national sensors within the Joint Command and Control architectural framework.

FY07 - Imagery Exploitation: Continue to provide the capability for Commanders, their battle staffs, and supporting intelligence analysts to exploit ISR from current/next generation UAV platforms and national sensors within the Joint Command and Control architectural framework.

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EXHIBIT R-2a, RDT&E Project Justification		DATE:	
		February 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA5	0604231N - Tactical Command System	0521 Shipboard Tactical Intel/GCCS-M Intelligence Applications	

(U) B. Accomplishments/Planned Program

Threat OOB and C&P	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.458	1.435	0.594
RDT&E Articles Quantity			

FY05 - Intelligence Data & Display: Provided the capability to develop, manage and disseminate the Order of Battle and weapons systems characteristics and performance parameters including integration of tactical and near real-time revisions to the Order of Battle.   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from Naval Center for Tactical Systems Ineroperability (NCTSI) and Joint Interoperability Test Command (JITC) and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Enhanced intelligence related production tools such as Candidate Target List and Order of Battle Reports (OBREP). Provide intelligence data and tools in a service-oriented architecture necessary to transition to the JC2 architecture, including enhanced dissemination tools such as sending intelligence data directly to the Common Operational Picture (COP), nominating a unit or facility as a target, sending email, posting, and exporting data to eXtensible Markup Language (XML) or Microsoft (MS) Excel.

FY07 - Enhanced intelligence related production tools such as Candidate Target List and Order of Battle Reports (OBREP). Continue to provide intelligence data and tools in a service-oriented architecture necessary to transition to the JC2 architecture, including enhanced dissemination tools such as sending intelligence data directly to the COP, nominating a unit or facility as a target, sending email, posting, and exporting data to XML or MS Excel.

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - Tactical Command System	0521 Shipboard Tactical Intel/GCCS-M Intelligence Applications

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
GCCS-M (OPN - BLI 2608)	35.224	64.115	38.804	68.938	69.134	93.991	88.093

(U) D. ACQUISITION STRATEGY:

   N/A

(U) E. Major Performers:

   Northrop Grumman Mission Systems (NGMS) is the prime contractor that provides software development and integration for GCCS-M.   SPAWAR System Center San Diego provides support as the Government testing facility.

(U) F. METRICS:

   Earned Value Management is used for metrics reporting and risk management.

R-1 SHOPPING LIST - Item No.   91

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)									DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - Tactical Command System				PROJECT NUMBER AND NAME 0521 Shipboard Tactical Intel/GCCS-M Intelligence Applications					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	VARIOUS	VARIOUS	19.011	0.381	VARIOUS	0.380	VARIOUS	0.250	VARIOUS	Continuing	Continuing	
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			19.011	0.381		0.380		0.250		Continuing	Continuing	
Remarks:												
Development Support											0.000	
Software Development	VARIOUS	VARIOUS	26.733	2.523	VARIOUS	2.530	VARIOUS	0.859	VARIOUS	Continuing	Continuing	
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			26.733	2.523		2.530		0.859		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No.   91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 26)

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)							DATE: **February 2006**					
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 0521 Shipboard Tactical Intel/GCCS-M Intelligence Applications						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation	WX	OPTEVFOR	2.056	0.000		0.000		0.000		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			2.056	0.000		0.000		0.000		Continuing	Continuing	
Remarks:												
Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	VARIOUS	VARIOUS	2.149	0.035	VARIOUS	0.035	VARIOUS	0.030	VARIOUS	Continuing	Continuing	
Travel											0.000	
Transportation											0.000	
											0.000	
Subtotal Management			2.149	0.035		0.035		0.030		Continuing	Continuing	
Remarks:												
Total Cost			49.949	2.939		2.945		1.139		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No.   91

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 27)

CLASSIFICATION:

EXHIBIT R4, Schedule Profile			DATE: **February 2006**

APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System	PROJECT NUMBER AND NAME 0521 Shipboard Tactical Intel/GCCS-M Intelligence Applications

Fiscal Year

	2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Acquisition Milestones
- 4.0 FRP (2005 Q3) ▲
- 4.1 MS B (2005 Q3) ▲
- 4.2 /JC2 Inc 1 MS B (2007 Q1) ▲
- 4.1 MS C (2007 Q1) ▲
- 4.1 FRP (2007 Q3) ▲
- 4.2 /JC2 Inc 1 MS C (2009 Q2) ▲
- 4.3 /JC2 Inc 2 MS B (2009 Q2) ▲
- 4.2/JC2 Inc 1 FRP (2010 Q1) ▲
- 4.3 /JC2 Inc 2 MS C (2011 Q1) ▲

Software Deliveries
- ▲ (continuous quarterly deliveries 2005 Q1 through 2011 Q4)

Test & Evaluation Milestones

Development Test
- 4.1 DT (2007 Q1) ▲
- 4.2/JC2 Inc 1 DT (2009 Q1) ▲
- 4.3/JC2 Inc 2 DT (2011 Q1) ▲

Operational Test
- 4.0 OT (2005 Q1) ▲
- 4.1 OT (2007 Q2) ▲
- 4.2/JC2 Inc 1 OT (2009 Q3) ▲
- 4.3/JC2 Inc 2 OT (2011 Q2) ▲

Production Milestones

Deliveries

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 28)

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**	PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 0521 Shipboard Tactical Intel/GCCS-M Intelligence Applications			
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Software Delivery (quarterly)	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4
Operational Test 4.0	Q1						
Full Rate Production 4.0	Q3						
Milestone B 4.1	Q3						
Preliminary Design Review 4.1	Q4						
Critical Design Review 4.1		Q1					
Design Readiness Review 4.1		Q2					
Integrated Logistics Assessment 4.1		Q4					
Milestone B 4.2 (JC2 Inc 1)			Q1				
Milestone C 4.1			Q1				
Development Test 4.1			Q1				
Operational Test 4.1			Q3				
Full Rate Production 4.1			Q4				
Preliminary Design Review 4.2				Q1			
Critical Design Review 4.2				Q2			
Design Readiness Review 4.2				Q3			
Integrated Logistics Assessment 4.2					Q1		
Milestone C 4.2 (JC2 Inc1)					Q2		
Milestone B 4.3 (JC2 Inc 2)					Q2		
Development Test 4.2 (JC2 Inc 1)					Q2		
Operational Test 4.2 (JC2 Inc 1)					Q4		
4.2 (JC2 Inc 1 Full Rate Production)						Q1	
Milestone C 4.3 (JC2 Inc 2)						Q4	
Development Test 4.3 (JC2 Inc 2)							Q1
Operational Test 4.3 (JC2 Inc 2)							Q3

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 29)

UNCLASSIFIED

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding ($000)						DATE: **February 2006**	

APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**		PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 0521 Shipboard Tac Intel/GCCS-M Intel App		
Program Title	**FY 2005**	**FY 2006**	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**
GCCS-M INTEL APPLICATIONS	-	-	-	-	-	-	-

GCCS-M software is developed under an engineering services based contract. Maximum Government liability is limited to the total obligated value of annually awarded task orders.

R-1 SHOPPING LIST - Item No. 91

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 30)

EXHIBIT R-2a, RDT&E Project Justification			DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System		PROJECT NUMBER AND NAME 0709 GCCS-M Maritime Applications			
COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	5.984	7.059	12.016	13.206	15.340	13.414	7.547
RDT&E Articles Qty							

(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 Commander in Chiefs (CINCs), 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 Warfare Commander (C2WC). It also integrates both joint and service-unique 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 integration of 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. In FY05, GCCS-M will begin migration to Joint Command and Control (JC2) development in coordination with the Joint Command and Control (JC2) Program. Efforts in FY06-07 will support the continued migration of capabilities as the JC2 architecture is further refined.

Undersea Superiority: This effort will significantly enhance tactical units ability to perform precision engagements by consolidating the common operational and undersea tactical pictures into a single comprehensive C2 picture, addressing the requirement of Warfighters and significantly improving interoperability. This effort is necessary to address FORECEnet compliance requirements and transition operational capability currently dependent on standalone, stovepiped systems into a Service Oriented Architecture that will make data available and interoperable with other C4I systems. By combining situational awareness data with data derived from combat systems, the warfighter is provided with a single, integrated picture of the battlespace.

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:	
		February 2006	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System	PROJECT NUMBER AND NAME 0709 GCCS-M Maritime Applications	

(U) B. Accomplishments/Planned Program

Readiness/Scheduling/JPN/TADILS/Broadcasts	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.993	3.300	3.009
RDT&E Articles Quantity			

FY05 - Force Readiness/Mission Preparation/Maritime Execution Management/Undersea Warfare (UW): Facilitated access to and display of current ship readiness data including Aviation Maintenance Reports, Casualty Report (CASREP) and Status of Resources and Training Systems Reports (SORTSREP). Addressed the legislated requirement to access historical unit movement and status data. Provided the capability to report maritime readiness to the appropriate Joint Commander per the Joint Commander's instruction.   Provided the capability to manage Maritime assets including deployment scheduling, pre-positioning and repositioning of units and stores, and allocation and reallocation of units to mission. Provided the capability to plan and manage the employment of undersea assets including water-space assignment, de-confliction and simultaneous monitoring of multiple undersea assets. Provided a bi-directional interface between the UW picture and the Common Operational Picture (COP) to facilitate Blue and Red force UW situational awareness. Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Force Readiness/Maritime Mission Planning and Execution: Provide the capability to plan and manage, within a Joint C2 architectural framework, the prepositioning and repositioning of units and stores and the allocation and reallocation of units for next-generation Force Structure planning and execution management per Office of the Secretary of Defense (OSD) and Chief of Naval Operations (CNO) mandates. This capability includes the means for the assignment, deconfliction and monitoring of multiple undersea assets.

FY07 - Force Readiness/Maritime Mission Planning and Execution: Continue to provide the capability to plan and manage, within a Joint C2 architectural framework, the prepositioning and repositioning of units and stores and the allocation and reallocation of units for next-generation Force Structure planning and execution management per OSD and CNO mandates. This capability includes the means for the assignment, deconfliction and monitoring of multiple undersea assets.

Spectral and Environmental Analysis	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.526	0.664	0.717
RDT&E Articles Quantity			

FY05 - Electronic Warfare (EW): Provided EW analytical tools that can access, display and analyze inputs from relevant shipboard sensors. Managed and exploited the electromagnetic spectrum, including the development of electromagnetic exploitation plans using shipboard systems involved in operations against electromagnetic targets.   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Provide the capability to develop, manage, and execute an Emission Control Plan within a Joint C2 framework in order to prevent exploitation of next-generation emitters by emergent/future hostile collection capabilities.

FY07 - Continue to provide the capability to develop, manage, and execute an Emission Control Plan within a Joint C2 framework in order to prevent exploitation of next-generation emitters by emergent/future hostile collection capabilities.

R-1 SHOPPING LIST - Item No. 91

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
			February 2006	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System		PROJECT NUMBER AND NAME 0709 GCCS-M Maritime Applications	

(U) B. Accomplishments/Planned Program

Aircraft Mission Planning	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.850	0.886	1.020
RDT&E Articles Quantity			

FY05 - C2/Maritime Patrol Aircraft Ground Station Integration: Facilitated shared situational awareness by integrating information from maritime patrol aircraft sensors, emitters and real time event reporting networks into the Common Operational Picture (COP). Provided a bi-directional interface between the Maritime Patrol Aircraft (MPA) and the COP, as well as the capability to prepare aircrew briefings, show aircraft status and provide mission reconstruction. Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Migrate MPRA unique shared situational awareness capabilities and systems interfaces into the JC2 architectural framework, including those brought by the next generation Multi-Mission Maritime Aircraft (MMA) and Unmanned Aerial Vehicles (UAVs). This capability will support the real-time prosecution of hostile targets identified and localized by MPRA/MMA/UAV assets.

FY07 - Investigate, initiate, and implement transition plans to future releases of GCCS-M 4.x/JC2. Perform necessary analysis and update TacMobile technical Roadmap documentation to ensure compliance with Navy and Joint command and control interoperability requirements (Force net, GIG, etc) and implementations.   Conduct testing of air platform support systems to utilize take advantage of capabilities inherent in future GCCS-M 4.x increments.   Ensure continued interoperability with GCCS-M planned increments.

Testing	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.082	2.209	2.270
RDT&E Articles Quantity			

FY05 - Testing: Provided for the conduct of holistic, end-to-end system testing of Maritime C4I capabilities within the emerging Joint C2 architectural framework. This includes developmental, operational, and interoperability test events as well as proof-of-concept testing of emergent capabilities and technologies.   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 in underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Provide for the continued efforts of holistic, end-to-end systems engineering and testing of Maritime C4I capabilities within the emerging Joint C2 architectural framework. This includes developmental, operational, and interoperability test events as well as proof-of-concept testing of emergent capabilities and technologies.

FY07 - Continue to provide for the continued efforts of holistic, end-to-end systems engineering and testing of Maritime C4I capabilities within the emerging Joint C2 architectural framework. This includes developmental, operational, and interoperability test events as well as proof-of-concept testing of emergent capabilities and technologies.

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.533	0.000	0.000
RDT&E Articles Quantity			

FY05 - Architecture: Mine Counter Measures (MCM) / Naval Coastal Warfare (NCW) Command and Control: Facilitated MCM situational awareness through integration with shipboard mine warfare counter measure systems. Provided a bi-directional interface between the MCM picture and the COP as well as support to the planning, evaluation, and asset management required for MCM operations. Facilitated scaled, shared situational awareness by integrating information from visual observation and other sources into the COP. Provided a bi-directional interface between the visual observation and other sources and the COP.   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604231N - Tactical Command System	0709 GCCS-M Maritime Applications

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	5.000
RDT&E Articles Quantity			

FY 07 - Undersea Superiority: This effort will accelerate integration of undersea warfare (USW) tactical decision aids and data sources used by the Surface Combatant Commander (SCC) and USW users into a Service Oriented Architecture for transition to Joint Command and Control (JC2).

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - Tactical Command System	0709 GCCS-M Maritime Applications

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
GCCS-M (OPN - BLI 2608)	35.224	64.115	38.804	68.938	69.134	93.991	88.093

(U) D. ACQUISITION STRATEGY:

   N/A

(U) E. Major Performers:

   Northrop Grumman Mission Systems (NGMS) is the prime contractor that provides software development and integration for GCCS-M.   SPAWAR System Center San Diego provides support as the Government testing facility.   Maxim Systems provides systems engineering support for GCCS-M.

(U) F. METRICS:

   Earned Value Management is used for metrics reporting and risk management.

R-1 SHOPPING LIST - Item No.   91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 35)

CLASSIFICATION:

					DATE:							
Exhibit R-3 Cost Analysis (page 1)						**February 2006**						
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 0709 GCCS-M Maritime Applications						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	VARIOUS	VARIOUS	12.762	0.500	VARIOUS	0.750	VARIOUS	2.657	VARIOUS	Continuing	Continuing	
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			12.762	0.500		0.750		2.657		Continuing	Continuing	
Remarks:												
Development Support											0.000	
Software Development	VARIOUS	VARIOUS	51.274	4.982	VARIOUS	5.718	VARIOUS	7.609	VARIOUS	Continuing	Continuing	
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			51.274	4.982		5.718		7.609		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No.   91

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CLASSIFICATION:

		DATE:
Exhibit R-3 Cost Analysis (page 2)		**February 2006**

APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**		PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 0709 GCCS-M Maritime Applications						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation	WX	OPTEVFOR	1.090	0.000		0.045		0.760		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			1.090	0.000		0.045		0.760		Continuing	Continuing	

Remarks:

Contractor Engineering Support	VARIOUS	VARIOUS						0.200	VARIOUS	Continuing	Continuing	
Government Engineering Support											0.000	
Program Management Support	VARIOUS	VARIOUS	9.530	0.502	VARIOUS	0.546	VARIOUS	0.790	VARIOUS	Continuing	Continuing	
Travel											0.000	
Transportation											0.000	
											0.000	
Subtotal Management			9.530	0.502		0.546		0.990		Continuing	Continuing	

Remarks:

Total Cost			74.656	5.984		7.059		12.016		Continuing	Continuing	

Remarks:

R-1 SHOPPING LIST - Item No.   91

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 37)

CLASSIFICATION:

EXHIBIT R4, Schedule Profile	DATE:
	February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - Tactical Command System	0709 GCCS-M Maritime Applications

Fiscal Year	2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Acquisition Milestones

- 4.0 FRP
- 4.1 MS B
- 4.2 /JC2 Inc 1 MS B
- 4.1 MS C
- 4.1 FRP
- 4.2 /JC2 Inc 1 MS C
- 4.3 /JC2 Inc 2 MS B
- 4.2/JC2 Inc 1 FRP
- 4.3 /JC2 Inc 2 MS C

Software Deliveries

Test & Evaluation Milestones

Development Test

- 4.1 DT
- 4.2/JC2 Inc 1 DT
- 4.3/JC2 Inc 2 DT

Operational Test

- 4.0 OT
- 4.1 OT
- 4.2/JC2 Inc 1 OT
- 4.3/JC2 Inc 2 OT

Production Milestones

Deliveries

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**	PROGRAM ELEMENT 0604231N - Tactical Command System				PROJECT NUMBER AND NAME 0709 GCCS-M Maritime Applications			
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Software Delivery (quarterly)	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	
Operational Test 4.0	Q1							
Full Rate Production 4.0	Q3							
Milestone B 4.1	Q3							
Preliminary Design Review 4.1	Q4							
Critical Design Review 4.1		Q1						
Design Readiness Review 4.1		Q2						
Integrated Logistics Assessment 4.1		Q4						
Milestone B 4.2 (JC2 Inc 1)			Q1					
Milestone C 4.1			Q1					
Development Test 4.1			Q1					
Operational Test 4.1			Q3					
Full Rate Production 4.1			Q4					
Preliminary Design Review 4.2				Q1				
Critical Design Review 4.2				Q2				
Design Readiness Review 4.2				Q3				
Integrated Logistics Assessment 4.2					Q1			
Milestone C 4.2 (JC2 Inc1)					Q2			
Milestone B 4.3 (JC2 Inc 2)					Q2			
Development Test 4.2 (JC2 Inc 1)					Q2			
Operational Test 4.2 (JC2 Inc 1)					Q4			
4.2 (JC2 Inc 1 Full Rate Production)						Q1		
Milestone C 4.3 (JC2 Inc 2)						Q4		
Development Test 4.3 (JC2 Inc 2)							Q1	
Operational Test 4.3 (JC2 Inc 2)							Q3	

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 39)

UNCLASSIFIED

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding ($000)					DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**		PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 0709 GCCS-M Maritime Applications		
Program Title	**FY 2005**	**FY 2006**	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**
GCCS-M MARITIME APPLICATIONS	-	-	-	-	-	-	-

GCCS-M software is developed under an engineering services based contract. Maximum Government liability is limited to the total obligated value of annually awarded task orders.

R-1 SHOPPING LIST - Item No. 91

UNCLASSIFIED **Exhibit R-2, RDTEN Budget Item Justification**
(Exhibit R-2, page 40)

EXHIBIT R-2a, RDT&E Project Justification					DATE: **February 2006**						
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - TACTICAL COMMAND SYSTEM				PROJECT NUMBER AND NAME 2009 TRUSTED INFORMATION SYSTEMS						
COST ($ in Millions)			FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011		
Project Cost			**$1.464**	**$2.116**	**$1.690**	**$1.562**	**$1.379**	**$0.385**	**$0.396**		
RDT&E Articles Qty											

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

(U) Trusted Information Systems (TIS) is a combination of the Joint Cross Domain eXchange (JCDX) system (formerly Ocean Surveillance Information System (OSIS) Evolutionary Development (OED)) and Radiant Mercury (RM), incorporating both Multi-Level Security (MLS) web technologies and Multiple Levels of Security technologies in order to successfully provide accredited Cross Domain Solutions (CDS). TIS is a critical component of network-centric warfare, supporting joint operations and coalition forces in the Global War on Terrorism (GWOT) and in Homeland Security operations. The ability to pass sensitive, yet critical, data across security domains and to our Coalition partners in a timely fashion can only be met by accredited CDS systems such as RM.

(U) **Joint Cross Domain eXchange (JCDX):** Provides the core on-line, automated, near-real time, multi-level secure, information analysis, dissemination, and receipt capabilities that enable Combatant Commanders 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. JCDX 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 simultaneously. In addition, it is required to provide near-real-time all-source fusion, correlation and analysis tools to include robust graphics presentation and geospatial analysis capabilities, directly feeding automated reporting capabilities. JCDX 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.

(U) JCDX is built on an evolutionary development strategy, which provides a mechanism for adding future capabilities including the incorporation of proven Fleet-initiated prototypes. TIS is the CDS foundation for transformational capabilities and functionalities required for the success of FORCEnet, Net-Centric Enterprise Services (NCES), Joint Command and Control (JC2), Multi-National Information Sharing (MNIS), and Global Information Grid (GIG). These transformational capabilities and functionalities include, but are not limited to, web services, CDS to single level and/or untrusted clients, conversion of legacy serial communications to Internet Protocol (IP) connectivity, vastly improved throughput to support increasingly larger files, and operating system (OS) migration in support of FORCEnet, NCES, JC2, MNIS, and GIG architectures.

(U) **Radiant Mercury:** RM provides a fully automated, bi-directional sanitization, transliteration and guarding capability for formatted and unformatted data between security enclaves. Radiant Mercury helps ensure critical Indications and Warning intelligence is provided quickly to operational decision-makers. RM is actively involved in the production and cross domain dissemination of information for operating forces worldwide, including the operating forces of key allies involved in the Global War On Terrorism (GWOT) and Operation Iragi Freedom (OIF). This capability to move all-source intelligence-derived track information into the realm of the operational community significantly improves the situational awareness of tactical operators and planners. Additionally, it assists in providing critical operational information to intelligence and cryptologic analysts. Unformatted data is handled by the Information Review Process (IRP). The system provides cross domain services to a wide variety of customers including all Combatant Commanders , Shared Early Warning, Blue Force Tracking, the GCCS-M architecture, as well as numerous DoD and Intelligence agency sites.

R-1 SHOPPING LIST - Item No.   91

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - TACTICAL COMMAND SYSTEM	2009 TRUSTED INFORMATION SYSTEMS

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	0.964	1.426	1.284	
RDT&E Articles Quantity				

JCDX:

FY05: Developed, integrated, and tested Web service front-end to Multi-Level Security (MLS) Message Archive search, extended MLS search to Portable Data Files (PDF), processed Track Management messages from external C4I systems, provided cross domain Command and Control Personal Computer (C2PC) gateway services to DOD Intelligence Information System (DODIIS) Trusted Workstation (DTW) analyst tools to identify high-interest track candidates for downgrade/processing for coalition redistribution, connectivity to external Modernized Integrated Database (MIDB).   Provided updates to JCDX message encoders, decoders and correlation algorithms in conjunction with security policies/requirements, formatted message standards, sensor data fields, and Cross Domain Solution (CDS) requirements of FORCEnet, NCES, JC2, Multinational Information Sharing (MINS), and GIG.

FY06: Operational feature enhancement to Hewlett Packard-UX (HP-UX) only JCDX server. Incorporate Horizontal Fusion (HF) Web Service Gateway features to deliver Service-Oriented Architecture (SOA) capabilities relying on Macintosh protection of JCDX HP server. Provide subset of JCDX CDS capability to DTW/Multi-Level Thin Client (MLTC), CENTRIX, and single level clients. Systems Engineering in support of JCDX migration to NCES/JC2/FORCENET architecture. Develop system interface capabilities as required for current releases for record communications systems with in an accreditable MLS baseline.

FY07: Implement message and PDF profiling to Web Service Gateway. Implement labeled posting for specified users. Systems Engineering in support of JCDX migration to NCES/JC2/FORCENET

	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	0.500	0.690	0.406	
RDT&E Articles Quantity				

RM:

FY05: Developed, integrated and tested improvements for higher message and file throughput in support of Global War On Terrorism (GWOT), Common Operational Picture (COP) Synchronization Tool (CST) guarding and sanitization, and improved upon the ability to process greater file sizes to address very large imagery file throughput.

FY06: RM migration to Trusted Solaris 10 server from Trusted Solaris 8 in order to remain compatible with the operating system and hardware available. Integration of Radiant Mercury Information Guard components to a single server (currently 3 servers) to reduce space requirements. Research transition to Internet Protocol version 6 (IPv6). Improve socket communications throughput. Design solutions to facilitate RM regionalization.

FY07: Develop, integrate, and test additional unformatted file types, secure remote maintenance, and enhanced audit management. Enhance support for emerging cross domain Web service requirements.

R-1 SHOPPING LIST - Item No.   91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 42)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - TACTICAL COMMAND SYSTEM	2009 TRUSTED INFORMATION SYSTEMS

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
GCCS-M (TIS/JCDX) (OPN - BLI 2608)	1.624	1.746	0.572	0.209	2.166	2.242	2.300

(U) D. ACQUISITION STRATEGY:

N/A

(U) E. Major Performers:

SPAWAR System Center San Diego provides support as the Government testing facility.

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 43)

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)									DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - TACTICAL COMMAND SYSTEM					PROJECT NUMBER AND NAME 2009 TRUSTED INFORMATION SYSTEMS				
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	VARIOUS	VARIOUS	9.540	0.134	VARIOUS	0.216	VARIOUS	0.195	VARIOUS	Continuing	Continuing	
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			9.540	0.134		0.216		0.195		Continuing	Continuing	
Remarks:												
Development Support											0.000	
Software Development	VARIOUS	VARIOUS	49.647	1.248	VARIOUS	1.836	VARIOUS	1.441	VARIOUS	Continuing	Continuing	
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			49.647	1.248		1.836		1.441		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No.   91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 44)

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)									DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - TACTICAL COMMAND SYSTEM			PROJECT NUMBER AND NAME 2009 TRUSTED INFORMATION SYSTEMS					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation											0.000	
Operational Test & Evaluation	WX	OPTEVFOR	0.630	0.050		0.000		0.000		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			0.630	0.050		0.000		0.000		Continuing	Continuing	

Remarks:

Contractor Engineering Support											0.000	
Government Engineering Support											0.000	
Program Management Support	VARIOUS	VARIOUS	2.185	0.032	VARIOUS	0.064	VARIOUS	0.054	VARIOUS	Continuing	Continuing	
Travel											0.000	
Transportation											0.000	
											0.000	
Subtotal Management			2.185	0.032		0.064		0.054		Continuing	Continuing	

Remarks:

Total Cost			62.002	1.464		2.116		1.690		Continuing	Continuing	

Remarks:

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 45)

CLASSIFICATION:

EXHIBIT R4, Schedule Profile		DATE: **February 2006**

APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - TACTICAL COMMAND SYSTEM	PROJECT NUMBER AND NAME 2009 TRUSTED INFORMATION SYSTEMS/JOINT CROSS DOMAIN EXCHANGE (JCDX)

Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones																	MILESTONE "C" - JCDX Version 6.0 △												MILESTONE "C" - JCDX Version 6.2 △			
Prototype Phase																																
Development																																
Delivery																																
Software OED 5.X / 6.X SW Delivery					DELIVERY JCDX Version 5.0 △				DELIVERY JCDX Version 5.1 △				DELIVERY JCDX Version 6.0 △				Delivery JCDX Version 6.1 △								DELIVERY JCDX Version 6.2 △						
Test & Evaluation Milestones Development Test Operational Test									FOT&E - JCDX Version 5.1 △				DT/OT - JCDX Version 6.0 △								FOT&E JCDX Version 6.1 △				DT/OT - JCDX Version 6.2 △							
Production Milestones																																
Deliveries																																

NOTES:
1) RM DEEMED POST-MILESTONE C
2) JCDX V5 POST-MILESTONE C

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CLASSIFICATION:

Exhibit R-4a, Schedule Detail		DATE: February 2006					
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT 0604231N - TACTICAL COMMAND SYSTEM	PROJECT NUMBER AND NAME 2009 TRUSTED INFORMATION SYSTEMS/JOINT CROSS DOMAIN EXCHANGE (JCDX)					
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Software Delivery JCDX Version 5.0	Q2						
Software Delivery JCDX Version 5.1		Q4					
FOT&E JCDX Version 5.1			Q1				
Software Delivery JCDX Version 6.0			Q4				
Developmental/Operational Test JCDX Version 6.0				Q1			
Milestone C JCDX Version 6.0				Q3			
Software Delivery JCDX Version 6.1					Q2		
FOT&E JCDX Version 6.1					Q3		
Software Delivery JCDX Version 6.2							Q1
Developmental/Operational Test JCDX Version 6.2							Q2
Milestone C JCDX Version 6.2							Q3

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Notes:
JCDX 5 post milestone C

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**		PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System		PROJECT NUMBER AND NAME 2305 GCCS-M Common Applications			
COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	9.721	9.632	4.285	5.719	6.952	7.177	7.414
RDT&E Articles Qty							

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

The GCCS-M Common Applications 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 (COE) program is a core function of the GCCS-M Common Applications 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. In FY05, GCCS-M will begin migration to Joint Command and Control (JC2) development in coordination with the Joint Command and Control (JC2) Program. Efforts in FY06-07 will support the continued migration of capabilities as the JC2 architecture is further refined.

GCCS-M Common Applications 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.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604231N - Tactical Command System	2305 GCCS-M Common Applications

(U) B. Accomplishments/Planned Program

Aircraft Mission Planning	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.697	0.691	0.330
RDT&E Articles Quantity			

FY05 - Aerospace Operations: Integrated organic situational awareness capabilities with National, theater, and shipboard aerospace operations management systems to plan and execute aerospace operations and promote shared situational awareness. Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Provide the capability to process and disseminate aircraft mission planning and execution data for disparate sources and platforms within the Joint C2 architectural construct. Required to execute near-real time strike, deep interdiction and power projection missions by current and next-generation manned and unmanned air assets.

FY07 - Continue to provide the capability to process and disseminate aircraft mission planning and execution data for disparate sources and platforms within the Joint C2 architectural construct. Required to execute near-real time strike, deep interdiction and power projection missions by current and next-generation manned and unmanned air assets.

Web-Enabling/Readiness	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.843	1.351	0.638
RDT&E Articles Quantity			

FY05 - Web-Enabling/Readiness: User Help and Documentation: Provided an embedded documentation and individual/team user help capability that emphasizes performance of mission capabilities. Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 in underway with the goal of transitioning capabilities to JC2 is the near future.

FY06 - Provide the continued migration of web-enabled, task-oriented documentation and help capability emphasizing execution of missions within the Joint Command and Control construct.

FY07 - Continue to provide the continued migration of web-enabled, task-oriented documentation and help capability emphasizing execution of missions within the Joint Command and Control construct.

Testing/Usability	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.435	1.628	0.719
RDT&E Articles Quantity			

FY05 - Testing/Usability: Provided end-to-end system testing of Maritime C4I capabilities within the emerging Joint C2 architectural framework. This included developmental, operational, and interoperability test events as well as proof-of-concept testing of emergent capabilities and technologies.   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Provides continued end-to-end system testing of Maritime C4I capabilities within the emerging Joint C2 architectural framework. This includes developmental, operational, and interoperability test events as well as proof-of-concept testing of emergent capabilities and technologies.

FY07 - Continue to provide end-to-end system testing of Maritime C4I capabilities within the emerging Joint C2 architectural framework. This includes developmental, operational, and interoperability test events as well as proof-of-concept testing of emergent capabilities and technologies.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604231N - Tactical Command System	2305 GCCS-M Common Applications

(U) B. Accomplishments/Planned Program

Combat Systems Interface	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.729	0.687	0.377
RDT&E Articles Quantity			

FY05 - C2/Navigation Systems Integration / C2/ Meteorological and Ooceanographic (METOC) Integration: Integrated with shipboard navigation systems to provide definitive ship location to the COP in support of shared situational awareness. Provided the capability to geo-register and render digital nautical charts/navigation quality map products. Integrated with shipboard meteorological systems to provide current and forecasted environmental data to execute maritime operations and promote shared situational awareness.   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Migrate and integrate evolving organic shipboard systems to maritime implementations of the Joint C2 architecture.

FY07 - Continue migration and integration of evolving organic shipboard systems to maritime implementations of the Joint C2 architecture.

JPN/TADILS/BROADCASTS	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4.413	3.786	1.827
RDT&E Articles Quantity			

FY05 - Situational Awareness (SA) / Battle Force Command and Control (BFC2): Facilitated shared situational awareness by integrating information from shipboard sensors, emitters and real time event reporting networks into the COP. Provided assured SA and BFC2 by integrating information systems spanning GENSER, SCI, and Coalition security domains. Exchanged shared situational awareness information via the COP with Joint and shipboard systems (e.g. combat, weapons control, navigation, cryptologic).   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 is underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - - Provide bi-directional shared situational awareness by integrating and exchanging information with disparate systems, sensors and real time event reporting networks (e.g. weapons/fire control, navigation, cryptologic, tactical data links and broadcasts) within the Joint C2 architectural construct. This is required to prevent fratricide and mutual interference of current (e.g. Tomahawk, Aegis, Standard Missile and Patriot) and future weapon systems/platforms (Joint Strike Fighter (JSF), Multi-Mission Aircraft (MMA), Predator/DD-21 ship class) during multi-platform strike operations. Leverages investment in new and upgraded sensors to further develop Situational Awareness and Command and Control throughout the extended Battlespace.

FY07 - Continue to provide bi-directional shared situational awareness by integrating and exchanging information with disparate systems, sensors and real time event reporting networks (e.g. weapons/fire control, navigation, cryptologic, tactical data links and broadcasts) within the Joint C2 architectural construct. This is required to prevent fratricide and mutual interference of current (e.g. Tomahawk, Aegis, Standard Missile and Patriot) and future weapon systems/platforms (JSF, MMA, Predator/DD-21 ship class) during multi-platform strike operations. Leverages investment in new and upgraded sensors to further develop Situational Awareness and Command and Control throughout the extended Battlespace.

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 51)

CLASSIFICATION:

| EXHIBIT R-2a, RDT&E Project Justification | DATE: |
| | **February 2006** |

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA5	0604231N - Tactical Command System	2305 GCCS-M Common Applications

(U) B. Accomplishments/Planned Program

Force Protection/Counter-terrorism	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.197	0.136	0.094
RDT&E Articles Quantity			

FY 05 - Emergent Capabilities: Provided the capability to rapidly incorporate emergent and transformational C2I capabilities that have been demonstrated through the experimentation process, and that satisfy Naval, Joint and Coalition C2I requirements.   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 in underway with the goal of transitioning capabilities to JC2 in the near future.

FY 06 - Emergent Capabilities: Provide the continued migration of emergent and transformational command and control capabilities to the Joint C2 architectural construct such as C4I Web Services, Smart Common Operational Picture (SmartCOP), and Universal Chat Client.

FY 07 - Emergent Capabilities: Provide the continued migration of emergent and transformational command and control capabilities to the Joint C2 architectural construct such as C4I Web Services, SmartCOP, and Universal Chat Client.

C2 Fires Integration	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.407	1.353	0.300
RDT&E Articles Quantity			

FY05 - Maritime Mission Presentation of COP: Provided the capability to perform unique Shipboard Operations Execution Management tasks (e.g. maritime mission specific overlays/templates).   Accomplishments included a successful OPEVAL of GCCS-M 4.0, over 2,200 hours of Operational Testing and follow-on Verification of Corrected Deficiencies (VCD) testing, successful interoperability certifications from NCTSI and JITC and the successful GCCS-M 4.0 Production Decision received in June 2005 from GCCS-M's Milestone Decision Authority. GCCS-M 4.1 also had a successful Milestone B decision in June 2005. Requirements analysis and system design for GCCS-M 4.1 in underway with the goal of transitioning capabilities to JC2 in the near future.

FY06 - Targeting/Strike: Provide the capabilities to plan and conduct targeting activities, such as tasking, assignment, and direction of weapons delivery platforms (e.g. Naval Fires Control System (NFCS), Tomahawk) and execute strike operations in near-real time using existing and emerging systems, sensors, and data sources (e.g. Joint Services Imagery Processing System-Navy (JSIPS-N), Distributed Common Ground Station (DCGS) within the Joint Command and Control framework. Required to ensure maximum lethality from weapon-target pairing while minimizing collateral damage and preventing fratricide during Joint and Coalition strike operations.

FY07 - Targeting/Strike: Continue development of capabilities to plan and conduct targeting activities, such as tasking, assignment, and direction of weapons delivery platforms (e.g. NFCS, Tomahawk) and execute strike operations in near-real time using existing and emerging systems, sensors, and data sources (e.g. JSIPS-N, DCGS) within the Joint Command and Control

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 52)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2006**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System	PROJECT NUMBER AND NAME 2305 GCCS-M Common Applications

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
GCCS-M (OPN - BLI 2608)	35.224	64.115	38.804	68.938	69.134	93.991	88.093

(U) D. ACQUISITION STRATEGY:

N/A

(U) E. Major Performers:

Northrop Grumman Mission Systems (NGMS) is the prime contractor that provides software development and integration for GCCS-M.   SPAWAR System Center San Diego provides support as the Government testing facility.

(U) F. METRICS:

Earned Value Management is used for metrics reporting and risk management.

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:

		DATE:
Exhibit R-3 Cost Analysis (page 1)		**February 2006**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N - Tactical Command System	2305 GCCS-M Common Applications

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	
Ancillary Hardware Development											0.000	
Aircraft Integration											0.000	
Ship Integration											0.000	
Ship Suitability											0.000	
Systems Engineering	VAR	VAR	8.010	0.883	VAR	1.212	VAR	0.683	VAR	Continuing	Continuing	
Training Development											0.000	
Licenses											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal Product Development			8.010	0.883		1.212		0.683		Continuing	Continuing	

Remarks:

Cost Categories												
Development Support											0.000	
Software Development	VAR	VAR	50.393	7.424	VAR	6.432	VAR	2.468	VAR	Continuing	Continuing	
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			50.393	7.424		6.432		2.468		Continuing	Continuing	

Remarks:

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 54)

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - Tactical Command System				PROJECT NUMBER AND NAME 2305 GCCS-M Common Applications					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	VAR	VAR	6.432	0.719	VAR	1.013	VAR	0.547	VAR	Continuing	Continuing	
Operational Test & Evaluation	VAR	VAR	1.079	0.165	VAR	0.230	VAR	0.212	VAR	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			7.511	0.884		1.243		0.759		Continuing	Continuing	
Remarks:												
Contractor Engineering Support									VAR	Continuing	Continuing	
Government Engineering Support											0.000	
Program Management Support	VAR	VAR	3.452	0.530	VAR	0.745	VAR	0.375	VAR	Continuing	Continuing	
Travel											0.000	
Transportation											0.000	
											0.000	
Subtotal Management			3.452	0.530		0.745		0.375		Continuing	Continuing	
Remarks:												
Total Cost			69.366	9.721		9.632		4.285		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 55)

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																					DATE:		
																					February 2006		

APPROPRIATION/BUDGET ACTIVITY **RDT&E, N /   BA-5**

PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System

PROJECT NUMBER AND NAME 2305 GCCS-M Common Applications

Fiscal Year	2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Acquisition Milestones

- 4.0 FRP ▲
- 4.1 MS B ▲
- 4.2 /JC2 Inc 1 MS B ▲
- 4.1 MS C ▲
- 4.1 FRP ▲
- 4.2 /JC2 Inc 1 MS C ▲
- 4.3 /JC2 Inc 2 MS B ▲
- 4.2/JC2 Inc 1 FRP ▲
- 4.3 /JC2 Inc 2 MS C ▲

Software Deliveries

▲ ▲

Test & Evaluation Milestones

Development Test

- 4.1 DT ▲
- 4.2/JC2 Inc 1 DT ▲
- 4.3/JC2 Inc 2 DT ▲

Operational Test

- 4.0 OT ▲
- 4.1 OT ▲
- 4.2/JC2 Inc 1 OT ▲
- 4.3/JC2 Inc 2 OT ▲

Production Milestones

Deliveries

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 56)

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**	PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 2305 GCCS-M Common Applications			
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Software Delivery (quarterly)	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4
Operational Test 4.0	Q1						
Full Rate Production 4.0	Q3						
Milestone B 4.1	Q3						
Preliminary Design Review 4.1	Q4						
Critical Design Review 4.1		Q1					
Design Readiness Review 4.1		Q2					
Integrated Logistics Assessment 4.1		Q4					
Milestone B 4.2 (JC2 Inc 1)			Q1				
Milestone C 4.1			Q1				
Development Test 4.1			Q1				
Operational Test 4.1			Q3				
Full Rate Production 4.1			Q4				
Preliminary Design Review 4.2				Q1			
Critical Design Review 4.2				Q2			
Design Readiness Review 4.2				Q3			
Integrated Logistics Assessment 4.2					Q1		
Milestone C 4.2 (JC2 Inc1)					Q2		
Milestone B 4.3 (JC2 Inc 2)					Q2		
Development Test 4.2 (JC2 Inc 1)					Q2		
Operational Test 4.2 (JC2 Inc 1)					Q4		
4.2 (JC2 Inc 1 Full Rate Production)						Q1	
Milestone C 4.3 (JC2 Inc 2)						Q4	
Development Test 4.3 (JC2 Inc 2)							Q1
Operational Test 4.3 (JC2 Inc 2)							Q3

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 57)

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding ($000)							DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**		PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 2305 GCCS-M Common Applications		
Program Title	**FY 2005**	**FY 2006**	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**
GCCS-M COMMON APPLICATIONS	-	-	-	-	-	-	-

GCCS-M software is developed under an engineering services based contract. Maximum Government liability is limited to the total obligated value of annually awarded task orders.

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:									

| EXHIBIT R-2a, RDT&E Project Justification | | | | | | DATE:
February 2006 | | | |

| APPROPRIATION/BUDGET ACTIVITY
RDT&E, N /   BA-5 | PROGRAM ELEMENT NUMBER AND NAME
0604231N Tactical Command System | | | | PROJECT NUMBER AND NAME
2307 Shipboard LAN/WAN/Integrated Shipboard Network System (ISNS) | | | |

COST ($ in Millions)			FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost			**2.309**	**3.006**	**3.112**	**3.260**	**3.322**	**3.331**	**3.408**
RDT&E Articles Qty									

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

The Integrated Shipboard Network System (ISNS) program provides Navy ships, including submarines, with reliable, high-speed SECRET and UNCLASSIFIED Local Area Network (LAN)s. The LAN provides Basic Network Information Distribution Services (BNIDS) and access to the DISN Wide Area Network (WAN) (Secure and Nonsecure Internet Protocol Router Network -SIPRNet and NIPRNet). It provides the network infrastructure and services to enable real-time information exchange within the ship and between afloat units, Component Commanders, and Fleet Commanders. It is a key factor in the implementation of the Navy's portion of Joint Vision 2020 and the migration of existing legacy systems into the IT-21 strategy . Project funding supports the design, development and testing of the ISNS LAN for surface ships and SubLAN for submarines.

The ISNS program maximizes the use of both COTS software and hardware. Engineering and technical support is provided so that existing systems will keep pace with hardware and software that continues to be commercially supported. ISNS and SubLAN use a combination of high speed wired and wireless switches, routers, servers, workstations 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. Under the Navy's information modernization strategy, full synchronization of shipboard networks, mission and information applications, radio/satellite communications, and shore data dissemination infrastructure 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 over 460 different system configurations including the following: Global Command and Control System Maritime (GCCS-M) and Navy Tactical Command Support System (NTCSS), Navy Standard Integrated Personnel System (NSIPS), Theatre Medical Information Program – Maritime (TMIP-M), Defense Messaging System (DMS), Digital Wideband Transmission System (DWTS), Advanced Digital Network System (ADNS), Global Broadcasting System (GBS), Video Information Exchange System (VIXS), Advanced Tomahawk Weapons Control System (ATWCS) and Information Security (INFOSEC) programs. The ISNS program provides the infrastructure to support implementation/fielding of programs listed above. The LAN modernization rate must keep pace with hardware and software that is supported commercially in order to provide a supportable and secure FORCEnet infrastructure.

CENTRIXS - The Combined Enterprise Regional Information Exchange System (CENTRIXS) program provides Navy ships with a reliable, high-speed Local Area Network (LAN) that will provide access to the coalition (CFE, Global Counter Terrorism Task Force (GCTF), NATO Information Data Transfer System, Multinational Coalition Force Iraq (MCFI), CENTRIXS J and K, and all other bilateral and Community of Interest (COI)) Wide Area Network (WAN). It provides real-time information exchange between afloat units, Component Commanders, numbered Fleet Commanders and Commanders LANT/PAC Fleet through the migration of existing legacy systems into the ISNS 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 capability. The CENTRIXS program maximizes the use of both COTS software and hardware resulting in dependence of commercial support. Engineering and technical support is provided so that existing systems will be upgraded/modified to keep pace with the commercial community.

Project funding supports the development of acquisition documentation essential to the program. The goal for the CENTRIXS program is to provide a cost-efficient operationally effective network that dramatically reduces the infrastructure requirements, while maximizing operational flexibility in a coalition environment. MLTC initiatives include Server Virtualization Development, which provides the ability to run multiple virtual servers on a single server. Additionally, this funding provides design, developing and testing of the Unit level MLS/MLTC system that will reduce drop requirements while minimizing server and client footprint and migration testing with the existing Force level design from CITRIXS Software to Microsoft software to reduce software costs.

Submarine Local Area Network (SubLAN): The SubLAN program provides Navy submarines, with reliable, high-speed SECRET and UNCLASSIFIED Local Area Networks (LAN)s. When the SubLAN network is combined with other subsystems, it delivers an end-to-end network-centric warfare capability. SubLAN I provides network infrastructure including an Unclassified Wireless Local Area Network (UWLAN), servers, and the Common PC Operating System Environment (COMPOSE), which provides the server and operating system environment in which other applications such as Non-Tactical Data Processing System (NTDPS) application suite can run.

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 59)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE:
	February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N Tactical Command System	2307 Shipboard LAN/WAN/Integrated Shipboard Network System (ISNS)

(U) B. Accomplishments/Planned Program

		FY 05	FY 06	FY 07
ISNS		1.653	0.859	0.930
RDT&E Articles Quantity				

FY05: Performed developmental testing and operational testing on ISNS GiG-E LAN Increment I A(V)9 . The testing events supported a December 05 FRP decision for ISNS.   Developed COMPOSE 2.X. and 3.X to transition out of Windows NT server/client environment. Continued to investigate, develop and test next generation LAN Protocols (including Wireless LAN, Network management and administration, Secure/Nonsecure Voice, Internet Protocol Video and IPv6 and Quality of Service protocols) for potential incorporation into the Shipboard LAN architecture. Investigated, integrated and test data prioritization, advanced data storage and management, next generation server/workstation operation systems and secure operating systems, server/workstation consolidation and fixes for security vulnerabilities. Performed studies to increase availability and survivability of networks and reduce network infrastructure footprint. Perform disaster recovery plan and develop incremental spiral to mitigate major data and service disasters. 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. Performed follow-on system developmental and operational testing on ISNS GIG-E LAN Increment I A(V)9.

FY06: Continue to investigate, develop and test major and minor data and service disaster improvements, and dual IPv4 and IPv6 routing architectures. Investigate and test Storage Attached Network (SAN) and Network Attached Storage (NAS) architectures in support of server consolidation. Design and test increased availability and survivability network solutions. Further investigate increasing availability and survivability of networks and reduction of network infrastructure footprint.   Investigate increased security technologies that will monitor and control network and server data.   Integrate wireless network technologies into shipboard networks. Perform developmental testing and operational testing on ISNS GiG-E LAN Increment I A(V)8. Work with COMOPTEVFOR and ISNS system engineers to determine the level of operational testing for A(V)1 nd A(V)2.

FY07: Develop COMPOSE 4.X. Investigate, develop and test server consolidation architectures using multi-Secure server Operating Systems. Continue to investigate, develop and test SAN, NAS, server consolidation, and IP telephony architectures. Develop and test security technologies that monitor and control network and server traffic. Develop and test IP telephony solutions and call management for unclassified and secret networks.   Perform tailored operational testing on ISNS GiG-E LAN Increment I A(V)1 and A(V)2 and developmental testing on ISNS GiG-E LAN Increment 1 A(V)2. Successful operational testing will result in A(V)8 and A(V)2 fielding decision.

		FY 05	FY 06	FY 07
ISNS/CENTRIXS		0.000	1.779	1.784
RDT&E Articles Quantity				

FY06: Initiate the Server Virtualization Development that provides ability to run multiple virtual servers on one physical server reducing the server/rack footprint and creating a scalable Multi-Level Security (MLS) solution. Investigate Cross Domain Solutions (CDS) technology that will further reduce the network infrastructure. Develop acquisition documents in support of an MS C Decision. Conduct developmental testing.

FY07: Continue the Server Virtualization Development that provides ability to run multiple virtual servers on one physical server reducing the server/rack footprint and creating a scalable MLS solution. Continue the Cross Domain Solutions (CDS) security technology that will further reduce the network infrastructure.   Investigate Voice over Internet Protocol (VoIP) technology for coalition enclaves.

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 60)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N Tactical Command System	2307 Integrated Shipboard Network System SubLAN (ISNS/SubLAN)

(U) B. Accomplishments/Planned Program

		FY 05	FY 06	FY 07
ISNS/SubLAN		0.656	0.368	0.398
RDT&E Articles Quantity				

FY05: Investigated, developed and tested next generation LAN Protocols (including Wireless LAN, Network management and administration, Secure/Nonsecure Voice, Internet Protocol Video and IPv6 and Quality of Service protocols) for incorporation into the SubLAN architecture. Investigated, integrated and tested data prioritization, advanced data storage and management, next generation server/workstation operation systems and secure operating systems, server/workstation consolidation and fixes for security vulnerabilities. Performed studies to increase availability and survivability of networks and reduce network infrastructure footprint. Performed disaster recovery plan and developed incremental spiral to mitigate major data and service disasters. 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. Performed follow-on system developmental and operational testing.   Performed developmental testing and operational testing of SubLAN Increment 1 architecture. Testing events supported a December 2005 FRP decision for SubLAN 1.

FY06: Continue to investigate, develop and test major and minor data and service disasters improvements, dual IPv4 and Ipv6 routing architectures. Investigate and test Storage Attached Network (SAN), Network Attached Storage (NAS) architectures in support of server consolidation. Design and test increased availability and survivability network solutions. Further investigate increasing availability and survivability of networks and reduction of network infrastructure footprint. Investigate increased security technologies that will monitor and control network and server data. Increase submarine wireless network throughput.

FY07: Investigate, develop and test server consolidation architectures using multi-Secure server Operating Systems. Continue to investigate, develop and test SAN, NAS, server consolidation, and IP telephony architectures.

		FY 05	FY 06	FY 07
		0.000	0.000	0.000
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No.91

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N Tactical Command System	2307 Shipboard LAN/WAN/Integrated Shipboard Network System (ISNS)

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete Cont	Total Cost Cont
3050 Ship Comms Auto (OPN)									
ISNS	47.391	77.678	78.098	159.931	189.654	179.425	174.875		
CENTRIXS	0.000	6.515	11.484	13.742	11.639	11.730	7.375		
SubLAN	21.171	38.725	24.810	22.311	34.815	35.784	35.911		
Total:	68.562	122.918	114.392	195.984	236.108	226.939	218.161		

(U) D. ACQUISITION STRATEGY:

A common acquisition strategy for ISNS and SubLAN is being developed for post FRP production.

(U) E. Major Performers:

Spawar Systems Center Charleston, Charleston South Carolina Software Support Activity
Spawar Systems Center , San Diego CA. Baseline and interface design and testing for both hardware and software
Naval Undersea Warfare Center, Newport RI. SubLAN baseline and interface design and testing for both hardware and software.
Science Applications International Corporation (SAIC), San Diego CA. Studies and rack designs of COTS equipment.

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 62)

CLASSIFICATION:											

DATE: **February 2006**

Exhibit R-3 Cost Analysis (page 1)

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N Tactical Command System	2307 Shipboard LAN/WAN/Integrated Shipboard Network System (ISNS)

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	MIPR	FEDSIM/SAIC	1.635								1.635	0.000
Primary Hardware Development	WX	SSC CH	2.132	0.100	12/04	0.000	12/05	0.000	12/06	Continuing	Continuing	0.000
Primary Hardware Development	WX	SSC SD	1.624	0.925	12/04	0.565	12/05	0.580	12/06	Continuing	Continuing	0.000
Primary Hardware Development	TMM	EDS	0.196								0.196	0.000
Systems Engineering	MIPR	MITRE	0.426								0.426	0.000
Systems Engineering	MIPR	FEDSIM/SAIC	1.498								1.498	0.000
Systems Engineering	Various	Various	0.810	1.019	12/04	0.743	12/05	1.294	12/06	Continuing	Continuing	0.000
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			8.322	2.044		1.308		1.874		0.000	3.755	0.000

Remarks:

Development Support											0.000	0.000
Software Development	Various	Various				0.429	12/05	0.480	12/05		0.909	0.000
Training Development								0.100	12/05		0.100	0.000
Integrated Logistics Support											0.000	0.000
Configuration Management											0.000	0.000
Technical Data											0.000	0.000
GFE											0.000	0.000
Subtotal Support			0.000	0.000		0.429		0.580		0.000	1.009	0.000

Remarks:

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:											

						DATE:					
Exhibit R-3 Cost Analysis (page 2)								**February 2006**			

APPROPRIATION/BUDGET ACTIVITY
RDT&E, N /   BA-5

PROGRAM ELEMENT
0604231N Tactical Command System

PROJECT NUMBER AND NAME
2307 Shipboard LAN/WAN / Integrated Shipboard Network System (ISNS)

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Test & Evaluation	WX	SSC CH	0.743	0.124	12/04	0.169	12/05	0.164	12/06	Continuing	Continuing	0.000
Test & Evaluation	WX	SSD SD	1.378	0.000	12/04	0.000	12/05	0.000	12/06	Continuing	Continuing	0.000
Test & Evaluation	WX	SSC Chespk	0.755	0.000	12/04	0.000	12/05	0.000	12/06	Continuing	Continuing	0.000
Test & Evaluation	MP	JITC	0.000	0.057	12/04	0.020	12/05	0.035	12/06			
Test & Evaluation	Various	Various	0.000		12/04	0.200	12/05	0.100	12/06			
Operational Test & Evaluation	WR	OPTEVFOR	0.348	0.050	12/04	0.090	12/05	0.095	12/06	Continuing	Continuing	0.000
Tooling											0.000	0.000
GFE											0.000	0.000
Award Fees												
Subtotal T&E			3.224	0.231		0.479		0.394		0.000	4.328	0.000

Remarks:

Contractor Engineering Support											0.000	0.000
Government Engineering Support											0.000	0.000
Program Management Support	WX	SSC CH	0.257	0.034	12/04	0.040	12/05	0.064	12/06	Continuing	Continuing	0.000
Program Management Support	Various	Various				0.750	12/05	0.200	12/05			
Travel											0.000	0.000
Subtotal Management			0.257	0.034		0.790		0.264		0.000	1.345	0.000

Remarks:

Total Cost			11.803	2.309		3.006		3.112		0.000	20.230	0.000

Remarks:

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:

EXHIBIT R4, Schedule Profile	DATE: **February 2006**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N Tactical Command System	2307 Shipboard LAN/WAN / Integrated Shipboard Network System (ISNS)

Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Acquisition Milestones — ISNS Incr 1: ▲ MSC; A(V)9 FRP ▲; FD A(V)8 △; FD A(V)2/A(V)1 △

Prototype Phase

System Development (e.g., Radar System dev.): ISNS Increment 1

Equipment Delivery (e.g., EDM Radar Delivery)

Software — SW deliveries: ▲ 2.X; ▲ 3.X; △ 4.X; △ 5.X

Test & Evaluation Milestones — ISNS Development Test / ISNS Operational Test: A(V)9 DT/OT; A(V)8 DT/OT; A(V)2 DT/OT

Production Milestones — ISNS LRIP I: ISNS Incr LRIP

Deliveries

R-1 SHOPPING LIST - Item No. 91

NOTE: DT/OT has to occur for every ISNS GiG-E LAN Increment 1 variant (i.e. A(V)9, A(V)8, A(V)2…) based on COMOPTEVFOR requirement. FRP decision for ISNS Increment 1 with fielding and procurement authority for A(V)9 was granted in December 2005 after successful Operational Testing. Successful testing of A(V)8, A(V)2, and A(V)1 will result in system fielding decision.

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 65)

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**		PROGRAM ELEMENT 0604231N Tactical Command System		PROJECT NUMBER AND NAME 2307 Shipboard LAN/WAN / Integrated Shipboard Network System (ISNS)			

Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Milestone C	2Q							
Full Rate Production - A(V)9			1Q					
Fielding Decision - A(V)8				1Q				
Fielding Decision - A(V)2				3Q				
Fielding Decision - A(V)1								
System Development	1Q-4Q	1Q-2Q						
Software Delivery - 2.x	2Q							
Software Delivery - 3.x		4Q						
Software Delivery - 4.x				4Q				
Software Delivery - 5.x							4Q	
ISNS Development Test - A(V)9		3Q						
ISNS Development Test - A(V)8			4Q					
ISNS Development Test - A(V)2				2Q				
ISNS Development Test - A(V)1								
Operation Test - A(V)9		3Q						
Operation Test - A(V)8			4Q					
Operation Test - A(V)2				3Q				
Operation Test - A(V)1								
LRIP - I	1Q-4Q	1Q-4Q	1Q-2Q					

R-1 SHOPPING LIST - Item No. 91

UNCLASSIFIED

EXHIBIT R4, Schedule Profile		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /	0604231N Tactical Command System	2307 CENTRIXS

Fiscal Year	2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Acquisition Milestones
MS C INC I LRIP △
Contract Award △
FRP △

Prototype Phase

System Development — System Development

Software — COMPOSE 4.X*** △

Test & Evaluation Milestones

Development/Operational Test
DT △
DT/OT △
DT/OT △
DT/OT △

Production Milestones
BLK II
INC I

Deliveries: 19, 13, 13, 13, 5

R-1 SHOPPING LIST - Item No. 91

UNCLASSIFIED

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 67)

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT& BA-5**		PROGRAM ELEMENT 0604231N Tactical Command System			PROJECT NUMBER AND NAME 2307 CENTRIXS			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Milestone C				2Q				
Contract Award				2Q				
Full Rate Production					2Q			
System Development - Increment II			1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Software Delivery - 4.x					4Q			
Development Test/Operational Test			4Q	4Q			2Q	4Q

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 68)

CLASSIFICATION:

EXHIBIT R4, Schedule Profile		DATE: February 2006

APPROPRIATION/BUDGET ACTIVITY
RDT&E, N / **BA-5**

PROGRAM ELEMENT NUMBER AND NAME
0604231N Tactical Command System

PROJECT NUMBER AND NAME
2307 Integrated Shipboard Network System (ISNS/SubLAN)

Fiscal Year: 2004 2005 2006 2007 2008 2009 2010 2011 (quarters 1-4 each)

Acquisition Milestones
SubLAN Incr 1 — ▲ MSC SubLAN 1 ; ▲ FRP SubLAN 1
SubLAN Incr 2 — △ MSC SubLAN 2 ; △ FRP SubLAN 2

Prototype Phase

System Development (e.g., Radar System dev.) — SubLAN 1 ; SubLAN 2

Equipment Delivery (e.g., EDM Radar Delivery)

Software SW deliveries — 2.X ▲ ; 3.X ▲ ; 4.X △ ; 5.X △

Test & Evaluation Milestones
SubLAN Incr 1 Dev Test — DT
SubLAN Incr 1 OpTest — OT
SubLAN Incr 2 Dev Test — DT
SubLAN Incr 2 OpTest — OT
SubLAN Incr 3 Dev Test
SubLAN Incr 3 OpTest

Production Milestones
SubLAN Incr 1 LRIP — SubLAN 1 LRIP
SubLAN Incr 2 LRIP — SubLAN 2 LRIP

Deliveries

R-1 SHOPPING LIST - Item No. 91

NOTE: SubLAN 2 MSC, DT/OT, and FRP delayed to address SubLAN 1 Windows NT End-Of-Life requirements.

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2006**			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-5**		PROGRAM ELEMENT 0604231N Tactical Command System			PROJECT NUMBER AND NAME 2307 Integrated Shipboard Network System (ISNS/SubLAN)			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Milestone C - SubLAN I	2Q							
Milestone C - SubLAN 2					1Q			
Full Rate Production - SubLAN I			1Q					
Full Rate Production - SubLAN 2						3Q		
System Development - SubLAN I	1Q-4Q	1Q-3Q						
System Development - SubLAN 2	4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q		
Software Delivery - 2.x COMPOSE 2.0	2Q							
Software Delivery - 3.x COMPOSE 3.0		4Q						
Software Delivery - 4.x				4Q				
Software Delivery - 5.x							4Q	
Development Test - SubLAN I		3Q						
Development Test - SubLAN 2					4Q			
Operational Test - SubLAN I		4Q						
Operational Test - SubLAN 2						1Q		
LRIP - SubLAN I	1Q-4Q	1Q-4Q	1Q					
LRIP - SubLAN 2					1Q-4Q	1Q-3Q		

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 70)

CLASSIFICATION:						

| EXHIBIT R-2a, RDT&E Project Justification | | | | | DATE:**February 2006** | |

| APPROPRIATION/BUDGET ACTIVITY**RDT&E, N /   BA-5** | PROGRAM ELEMENT NUMBER AND NAME0604231N - Tactical Command System | | PROJECT NUMBER AND NAME3032 NTCSS Enterprise Database and MLDN | | | |

COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**3.923**	**0.047**	**0.045**	**0.052**	**0.050**	**0.050**	**0.051**
RDT&E Articles Qty	**1**	**1**	**1**				

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
     Navy Tactical Command Support System (NTCSS) - This RDT&E,N Project funding supports design, development and testing of the Navy Tactical Command Support System (NTCSS) web initiative. A web-enabled NTCSS will place all NTCSS databases into a similar structure, allowing greater interoperability between applications and 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.

R-1 SHOPPING LIST - Item No. 91

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA - 5	0604231N - Tactical Command System	'3032 NTCSS Enterprise Database and MLDN

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	3.923	0.047	0.045	
RDT&E Articles Quantity	1	1	1	

FY2005 Accomplishments:
Supported Web-enabled NTCSS applications.

FY2006 AND FY2007 PLAN:
Continue Web-enabling of NTCSS applications.

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:

| EXHIBIT R-2a, RDT&E Project Justification | DATE: |
| | **February 2006** |

| APPROPRIATION/BUDGET ACTIVITY | PROGRAM ELEMENT NUMBER AND NAME | PROJECT NUMBER AND NAME |
| **RDT&E, N /   BA-5** | 0604231N - Tactical Command System | 3032 NTCSS Enterprise Database and MLDN |

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
OPN 261100 Naval Tactical Command Support System	20.137	50.992	35.311	31.210	39.465	40.258	41.058		
RDT&E PE 0604231N X9373 AN/UYQ-70 Based IT-21	4.053	1.700	0.000	0.000	0.000	0.000	0.000		

(U) D. ACQUISITION STRATEGY:

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

(U) E. MAJOR PERFORMERS: SPAWAR Systems Center (SSC) Norfolk, VA, SSC Charleston, SC and Science Applications International Corporation (SAIC): Software Development, Award Date: Various

(U) F. METRICS:

Earned Value Management is used for metrics reporting and risk management.

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 73)

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: **February 2006**			

APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - Tactical Command System				PROJECT NUMBER AND NAME 3032 NTCSS Enterprise Database and MLDN				

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Various	Various	0.668								0.668	0.000
Ancillary Hardware Development											0.000	0.000
Systems Engineering	Various	Various	1.000								1.000	0.000
Licenses	Various	Various	0.700								0.700	0.000
Tooling											0.000	0.000
GFE											0.000	0.000
Award Fees											0.000	0.000
Subtotal Product Development			2.368	0.000		0.000		0.000		0.000	2.368	0.000

Remarks:

Development Support											0.000	0.000
Software Development	Various	Various	7.739	2.835	Various	0.047	10/05	0.045	10/06	Continuing	Continuing	0.000
Training Development											0.000	0.000
Integrated Logistics Support											0.000	0.000
Configuration Management	Various	Various	0.460								0.460	0.000
Technical Data	Various	Various	0.200								0.200	0.000
GFE											0.000	0.000
Subtotal Support			8.399	2.835		0.047		0.045		0.000	0.660	0.000

Remarks:

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 74)

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)					DATE: **February 2006**						

APPROPRIATION/BUDGET ACTIVITY
RDT&E, N /   BA-5

PROGRAM ELEMENT
0604231N - Tactical Command System

PROJECT NUMBER AND NAME
3032 NTCSS Enterprise Database and MLDN

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX	NAWC-AD	0.585	1.088	06/05						1.673	0.000
Operational Test & Evaluation											0.000	0.000
Live Fire Test & Evaluation											0.000	0.000
Test Assets											0.000	0.000
Tooling											0.000	0.000
GFE											0.000	0.000
Subtotal T&E			0.585	1.088		0.000		0.000		0.000	1.673	0.000

Remarks:

Contractor Engineering Support	Various	Various	0.896								0.896	0.000
Government Engineering Support	Various	Various	0.279								0.279	0.000
Program Management Support											0.000	0.000
Travel											0.000	0.000
Subtotal Management			1.175	0.000		0.000		0.000		0.000	1.175	0.000

Remarks:

Total Cost			12.527	3.923		0.047		0.045		Continuing	Continuing	0.000

Remarks:

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 75)

EXHIBIT R4, Schedule Profile		DATE: **February 2006**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System	PROJECT NUMBER AND NAME '3032 NTCSS Enterprise Database and MLDN

Fiscal Year	2005				2006				2007				2008				2009				2010				2011			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones																												
Prototype Phase																												
System Development			X	X			X	X			X	X			X	X			X	X			X	X			X	X
Equipment Delivery																												
Software Delivery			X					X				X				X				X				X				X
Test & Evaluation Milestones																												
NTCSS web services FOT&E			X		X	X	X																					
Development Test																												
Operational Test																												
Production Milestones																												
LRIP I																												
LRIPII																												
FRP			X					X				X				X				X				X				X
Deliveries																												

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 76)

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE:		
				February 2006		

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT		PROJECT NUMBER AND NAME			
RDT&BA-5	0604231N - Tactical Command System		3032 NTCSS ENTERPRISE DATABASE AND MLDN			

Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Contract Preparation							
Software Specification Review (SSR)							
Preliminary Design Review (PDR)	Q1-Q2	Q1-Q2	Q1-Q2	Q1-Q2	Q1-Q2	Q1-Q2	Q1-Q2
System Development		Q3-Q4	Q3-Q4	Q3-Q4	Q3-Q4	Q3-Q4	Q3-Q4
Critical Design Review (CDR)							
Quality Design and Build							
Test Readiness Review (TRR)							
Developmental Testing (DT-IIA)							
Eng Dev Model (EDM) Radar Delivery - Lab							
Software Delivery	Q4	Q4	Q4	Q4	Q4	Q4	Q4
Preproduction Readiness Review (PRR)							
EDM Radar Delivery - Flt Related							
Milestone C (MS C)							
Operational Testing (OT-IIIA)		Q3-Q4					
Start Low-Rate Initial Production I (LRIP I)							
Software Delivery 2XXSW							
Developmental Testing (DT-IIIB1)	Q4						
Developmental Testing (DT-IIIB2)		Q2					
Start Low-Rate Initial Production II							
Operational Testing (OT-IIB)							
Developmental Testing (DT-IIC)							
Functional Configuration Audit (FCA)							
Low-Rate Initial Production I Delivery							
Technical Evaluation (TECHEVAL)							
Physical Configuration Audit							
Operational Evaluation (OT-IIC) (OPEVAL)							
Low-Rate Initail Production II Delivery							
IOC							
Full Rate Production (FRP) Decision	Q3	Q4	Q4	Q4	Q4	Q4	Q4
Full Rate Production Start	Q4	Q4	Q4	Q4	Q4	Q4	Q4
First Deployment	Q4	Q4	Q4	Q4	Q4	Q4	Q4

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 77)

Exhibit R-5, Termination Liability Funding for Major Defense Acquisition Programs, RDT&E Funding ($000)							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**			PROGRAM ELEMENT 0604231N - Tactical Command System			PROJECT NUMBER AND NAME 3032 NTCSS Enterprise Database and MLDN		
Program Title	**FY 2004**	**FY 2005**	**FY 2006**	**FY 2007**	**FY 2008**	**FY 2009**	**FY2010**	**FY2011**
NTCSS ENTERPRISE DATABASE AND MLDN	-	-	-	-	-	-	-	-

* NTCSS does not budget for Termination Liability. Termination Liability Clauses indicate that the maximum funding available to the contractor is the total amount obligated for the task, upon proposal to the Procurement Contracting Officer, if the government should terminate the contract or task for convenience.

R-1 SHOPPING LIST - Item No. 91

CLASSIFICATION:							
EXHIBIT R-2a, RDT&E Project Justification					DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	0604231N Tactical Command System				PROJECT NUMBER AND NAME 9123 FORCEnet		
COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**15.234**	**15.256**	**15.181**	**19.114**	**20.827**	**21.084**	**21.355**
RDT&E Articles Qty							

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

FORCEnet is the Navy and Marine Corps initiative to achieve Network Centric Warfare and Joint Transformation. FORCEnet is the enabler of Sea Power 21, Naval Power 21, the Naval Operating Concept for Joint Operations, and the Department of the Navy's Naval Transformation Roadmap. FORCEnet is executing these policies as detailed in the Secretary of the Navy's Report to Congress on FORCEnet (16 May 03).

The FORCEnet project line funds four efforts:

(1) Department of Navy (DoN) Transformation within Department of Defense (DoD) Framework *(Strategic Planning)*: Develops and establishes Navy-wide FORCEnet policy, planning, compliance, and investment strategy, supporting implementation of Network Centric Warfare. Drives DoN/DoD transformation efforts, accelerated innovation/testing/assessment/fielding of war fighter capability, Joint/Allied/Coalition interoperability, and establishment of enterprise FORCEnet requirements.

(2) Accelerating Joint War fighting Capability *(Trident Warrior)*: Enables early delivery of Network Centric Warfare capabilities to the war fighter via Fleet-directed Trident Warrior operational events. Integrates stand-alone systems and efforts to achieve substantially enhanced capability, demonstrates/tests these capabilities in both laboratory and operational environments, and evaluates their effectiveness. Coordinates FORCEnet efforts with other Service/Joint/DoD/National efforts to ensure Joint/Interagency/Allied/Coalition applicability and interoperability.

(3) FORCEnet Compliance Implementation *(FORCEnet Compliance Implementation)*: Develop FORCEnet Implementation Baseline. Develop FORCEnet compliance assessment tools. Develop FORCEnet compliance test procedures and test methodologies. Refine FORCEnet compliance metrics and define levels of compliance. Conduct compliance testing/assessment reviews and report on compliance adherence to Office of the Chief of Naval Operations (OPNAV), Naval NetworkWarfare Command (NETWARCOM), Assistant Secretary of the Navy Research, Development and Acquisition (ASN RDA) and the FORCEnet/C4I (Command, Control, Communication, Computers & Intelligence) Virtual Systems Command Governance Board.

(4) Osprey Hawksbill - This is a classified program.

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604231N Tactical Command System	9123 FORCEnet

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	**15.234**	**15.256**	**15.181**
RDT&E Articles Quantity			

FY05 Accomplishments:
1) Department of Navy (DoN) Transformation within Department of Defense (DoD) Framework (*Strategic Planning*) Developed expanded Joint/Allied/Coalition coordination/policy/planning. Validated FORCEnet Requirements/Architectures/Standards Spiral / Iteration. Updated FORCEnet Consolidated Compliance Checklist, integrated with broader Service/DoD checklists and policies, and established planning for formal Navy-wide implementation. Promulgated FORCEnet Requirements/Capabilities and Compliance Policy Memorandum of 27 MAY 05, which defined FORCEnet requirements and implemented an end-to-end compliance process. Supported Fleet FORCEnet Operational Advisory Group meetings. Supported FORCEnet Enterprise eam (FET) implementation.
2) Accelerating Joint Warfighting Capability (*Trident Warrior):* Executed Trident Warrior 04 (TW04) in October 2004 in the Commander Third Fleet (C3F) Area of Responsibility (AOR). Supported spiral development of programs of record in TW04. Completed analysis of TW04 experiment results and delivered Military Utility Assessment recommendations for Concent of Operations (CONOPS) and Doctrine Organization Training Material Leadership Personnel Facility (DOTMLPF) to NETWARCOM, Commander, Fleet Forces Command (CFFC) and the Sea Trial Executive Steering Group (ESG). Demonstrated technologies that provided significant improvements in Fleet Top Ten priorities of Blue Force Situational Awareness and bandwidth utilization. Provided leave behind capability for one deployment cycle of successful technologies for extended operational assessment. Conducted planning for Trident Warrior 05 (TW05) including experiment objective and scenario development involving a Coalition Force Maritime Component Commander staff and coalition Australia, Canada, New Zealand, United Kingdom, and United States (AUSCANNZUKUS) forces. Supported spiral development of programs of record in TW05. Planned and executed lab based Risk Reduction Limited Objective Experiment for risk mitigation of TW05 which also resulted in capabilities requirements definition for a standardized tactical chat tool. Supported war game at Naval War College for risk reduction of Information Management and Intelligence, Surveillance, and Reconnaissance (ISR) initiatives participation. Continued development of Naval Post-Graduate School experiment analysis tools. Started planning for Trident Warrior 06 (TW06), conducted initial technology selection and scenario objectives. Developed FY06-07 FORCEnet Sea Trial Plan.
3) FORCEnet Compliance Implementation (*FORCEnet Implementation Baseline)* Developed initial FORCEnet Implementation Baseline. Developed initial FORCEnet compliance assessment tools. Developed initial FORCEnet compliance test procedures and test methodologies. Refined FORCEnet compliance metrics and defined levels of compliance. Conducted compliance testing/assessment reviews and reported on compliance adherence to OPNAV, NETWARCOM, ASN RDA and the FORCEnet/C4I Virtual Systems Command Governance Board.
4) Osprey Hawksbill - This is a classified program.

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 80)

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N Tactical Command System	PROJECT NUMBER AND NAME 9123 FORCEnet

(U) B. Accomplishments/Planned Program

FY06 Planning:
1) DoN Transformation within DoD Framework *(Strategic Planning)*: Refine expanded Joint/Allied/Coalition coordination/policy/planning. Validate FORCEnet Requirements/Architectures/Standards Spiral / Iteration. Update integrated FORCEnet Consolidated Compliance Checklist and execute initial Navy-wide implementation. Support Fleet FORCEnet Operational Advisory Group meetings.   Initiate planning for Navy wide FORCEnet compliance via a development of a Secretary of the Navy (SECNAV) Instruction for FORCEnet. Support development of final reports, and integrate results into policy/planning.
2) Accelerating Joint Warfighting Capability *(Trident Warrior):* Execute Trident Warrior 05 (TW05) in November 05 in the 2nd Fleet Area of Responsibility (AOR). Continue support for spiral development of programs of record. Focus on FORCEnet Coalition/Allied Interoperability. Create Coalition Naval Force Network with shore infrastructure to remain in place to support Trident Warrior 06 (TW06), with potential to support real-world operations. Provide leave behind capability for one deployment cycle of successful technologies for extended operational assessment. Conduct analysis of TW 05 experiment results and deliver Military Utility Assessment recommendations to NETWARCOM, CFFC and the Sea Trial ESG. Complete planning and preparation for TW06 including scenario and objective development, risk mitigation and logistics planning.   Conduct TW06 in June-July 2006 in the Commander Third Fleet (C3F) AOR with C3F Carrier Strike Group/Expeditionary Strike Group (CSG / ESG) units, United States Marine Corp (USMC), Marine Corps Combat Development Center (MCCDC), International Military Education and Training (IMET) and AUSCANNZUKUS Multi-National Task Group focused on Expeditionary Warfare and Maritime Domain Awareness.   Plan and execute TW06 operational events to accelerate transition of FORCEnet capability to the Fleet. Complete analysis of TW06 experiment results and deliver Military Utility Assessment to NETWARCOM, CFFC and the Sea Trial ESG. Begin planning for Trident Warrior 07 (TW07). Develop FY07-08 FORCEnet Sea Trial Plan.
3) FORCEnet Compliance Implementation *(FORCEnet Implementation Baseline):* Perform Program of Record (POR) compliance reviews using validated assessment tools, compliance test procedures/methodologies. Report POR level of FORCEnet compliance to OPNAV, NETWARCOM, ASN(RD&A) and the FORCEnet/C4I Virtual Systems Command Governance Board. Refine/update FORCEnet Integrated Baseline and insert compliance data/results.
4) Osprey Hawksbill - This is a classified program.

FY07 Planning:
1) DoN Transformation within DoD Framework *(Strategic Planning):* Refine expanded Joint/Allied/Coalition coordination/policy/planning. Validate FORCEnet Requirements/Architectures/Standards Spiral / Iteration. Update integrated FORCEnet Consolidated Compliance Checklist and execute formal full Navy-wide implementation. Support FORCEnet Operational Advisory Group meetings.   Support development of final reports, and integrate results into policy/planning.
2) Accelerating Joint Warfighting Capability *(Trident Warrior):* Explore TW07 execution option with Commander Second Fleet (C2F) Carrior Strike Group/Expeditionary Strike Group (CSG / ESG) units with continued Coalition presence.   Possible focus to include Global War on Terrorism (GWOT) and Maritime Domain Awareness (MDA). Investigate operational level implementation of Global Information Grid and Network Centric Enterprise Services technologies and associated Tactics, Techniques, and Procedures (TTPs) and CONOPS. Continue support for the spiral development of programs of record.   Plan and execute TW07 operational events to accelerate transition of FORCEnet capability to the Fleet. Provide leave behind capability for one deployment cycle of successful technologies for extended operational assessment. Begin planning for Trident Warrior 08. Develop 08-09 FORCEnet Sea Trial Plan.
3) FORCEnet Compliance Implementation *(FORCEnet Implementation Baseline):*   Perform POR compliance reviews using validated assessment tools, compliance test procedures/methodologies.
Report POR level of FORCEnet compliance to OPNAV, NETWARCOM, ASN(RD&A) and the FORCEnet/C4I Virtual Systems Command Governance Board.   Refine/update FORCEnet Implementation
 Baseline and insert compliance data/results.
4) Osprey Hawksbill - This is a classified program.

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 81)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA- 5	0604231N Tactical Command System	9123 FORCEnet

(U) C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
Not Applicable									

(U) D. ACQUISITION STRATEGY:

Not Applicable

(U) E. MAJOR PERFORMERS:

FY 2005 / FY 2006 / FY 2007:
Federal System Integration & Management Center / Science Applications Internation Corporation (FEDSIM/SAIC), Alexandria, VA: End-to-End Mission Support
Booz Allen Hamilton, CA: System Engineering Support
Space and Naval Warfare Systems Command System Center (SSC), San Diego, CA: Trident Warrior (TW) Risk Reduction level of effort (LOE), Test Director, Tech Lead, Analysis Support, Network Engineering Support, Install Support
Naval Post Graduate School, CA: Analysis Support and Analysis Lead
Defense Technical Information Center (DTIC), VA: NETWARCOM Engineering Information Assurance (IA) Support

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 82)

CLASSIFICATION:

			DATE:
Exhibit R-3 Cost Analysis (page 1)			**February 2006**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N / BA- 5	0604231N Tactical Command System	9123 FORCEnet

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development											0.000	0.000
Ancillary Hardware Development											0.000	0.000
Aircraft Integration											0.000	0.000
Ship Integration	Various	Various	0.935								0.935	0.000
Ship Suitability											0.000	0.000
Systems Engineering	Various	Various	1.600								1.600	0.000
Award Fees											0.000	0.000
Subtotal Product Development			2.535	0.000		0.000		0.000		0.000	2.535	0.000

Remarks:

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development Support	Various	Various	2.700								2.700	0.000
Software Development	Various	Various	2.900								2.900	0.000
Integrated Logistics Support											0.000	0.000
Configuration Management											0.000	0.000
Technical Data											0.000	0.000
Osprey Hawksbill	Various	Various	3.281	3.000	Various	2.899	Various	3.000	Various	Continuing	Continuing	0.000
GFE											0.000	0.000
Subtotal Support			8.881	3.000		2.899		3.000		0.000	17.780	0.000

Remarks:

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CLASSIFICATION:

								DATE:			
								February 2006			

Exhibit R-3 Cost Analysis (page 2)

APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604231N Tactical Command System			9123 FORCEnet					

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various	1.300								1.300	0.000
Accelerating Joint Warfighting Capab	Various	Various		5.534	Various	5.797	Various	5.481	Various	Continuing	Continuing	0.000
FORCEnet Compliance Implementation				3.000	Various	2.899	Various	3.000	Various	Continuing	Continuing	0.000
DoN Transformation (Strategic Planning)			1.953	3.700	Various	3.661	Various	3.700	Various	Continuing	Continuing	0.000
Tooling											0.000	0.000
GFE											0.000	0.000
Subtotal T&E			3.253	12.234		12.357		12.181		0.000	40.025	0.000

Remarks:

Cost Categories			Total PY s Cost	FY 05 Cost		FY 06 Cost		FY 07 Cost			Total Cost	Target Value of Contract
Technical Support			2.124								2.124	0.000
Government Engineering Support			3.899								3.899	0.000
Program Management Support			0.800								0.800	0.000
Travel			0.299								0.299	0.000
Subtotal Management			7.122			0.000		0.000			7.122	0.000

Remarks:

Total Cost			21.791	15.234		15.256		15.181				0.000

Remarks:

R-1 SHOPPING LIST - Item No. 91

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 84)

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA5**	PROGRAM ELEMENT NUMBER AND NAME 0604231N - Tactical Command System	PROJECT NUMBER AND NAME Various Congressional Increases

(U) B. Accomplishments/Planned Program

9372 Tactical 3D Common Operational Picture (COP)	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.499	3.400	0.000
RDT&E Articles Quantity			

FY05-06: Tactical 3 Dimensional (3D) Common Operational Picture (COP) Congressional Increase provides for the requirements analysis, design, software development, testing and demonstration support necessary to mature a GCCS-M 3D capability. Specific capability improvements include performance analysis and improvement, full Range Ring / Drop Down line capability, 3D model scaling (relative sizes), enhanced automatic model selection for other track types (Units, Link, etc.), improved track hook (more attributes), additional overlay display in 3D (mission routes, etc.), enhanced support for Space and Missile tracks, I3 access for sensor coverage areas, collaboration tools, 3D Display issues (No Altitude, No Z axis, etc.), record/replay feature (possible Experiment / Demonstration).

9373 UYQ-70 based IT-21C4ISR upgrades	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4.053	1.700	0.000
RDT&E Articles Quantity			

Congressional increase for Information Technology (IT) for the 21st Century Block 1 Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) Computing Equipment (IT-21 Block 1) is developmental engineering effort that will add functionality and focus on improving supportability of deployed systems that reduces fleet maintenance and training requirements. Many of the C4ISR and other similar applications run on outdated, unsupported equipment. Existing computer systems are inadequate to host the software that is needed to improve the functionality of fleet C4ISR systems. Innovations in network solutions are needed to support existing needs as well as provide sufficient growth potential for additional functionality. Commercially produced products suffer from the lack of coordination of technology upgrades and life cycle support that plagued the Tactical Advanced Computer (TAC) series of equipment. C4ISR systems have become critical to the overall effectiveness of deployed units. Access to information located anywhere (network centric warfare) is needed to accomplish increasingly complex missions. Legacy equipment was not designed for survivability in harsh combat environments and scenarios. Development of prototypes to replace this legacy equipment will provide a more robust capability under the most demanding conditions, and will also avoid costly and inefficient support of outdated systems. This RDT&E,N funding will be used to develop a common AN/UYQ-70 based solution for IT-21 Block 1 and ultimately ForceNet. Capitalizing on the AN/UYQ-70 Technology allows fast-cycle development and provides improved fleet capability at a reduced cost.

FY05 Accomplishments:
· Continued design, development and testing of upgraded AN/UYQ-70 IT-21 integrated racks.
· Continued integration efforts to include standardized configuration, integrated documentation and integrated software applications.
· Continued development of Integrated Logistics Support (ILS) Plan.

FY06 Plans:
· Continue to design, develop and test upgraded AN/UYQ-70 IT-21 integrated racks.
· Continue to integrate efforts to include standardized configuration, integrated documentation and integrated software applications.
· Continue to develop Integrated Logistics Support (ILS) Plans.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
			February 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND NAME	
RDT&E, N / BA5	0604231N - Tactical Command System		Various Congressional Increases	

(U) B. Accomplishments/Planned Program (Continued)

9893 ACETEF UPGRADED RDT&E CAPABILITY	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	2.100	0.000
RDT&E Articles Quantity			

FY06 -Congressional Increase for ACETEF Upgraded RDT&E Capability.

9894 ADVANCED TECHNOLOGY SENSOR PAYLOADS	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	3.400	0.000
RDT&E Articles Quantity			

FY06 -Congressional Increase for Advanced Technology Sensor Payloads.

9895 LOGISTICS COMMON OPERATING PICTURE	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	2.000	0.000
RDT&E Articles Quantity	0	1	0

FY06 - Congressional Plus-Up for Logistics Common Operating Picture

Funds will be used to design, develop and test the Logistics Common Operating Picture (LOGCOP) tool. This logistics decision-support management tool will utilize emergent technologies to enable the exposure of logistics data and provide actionable logistics information both afloat and ashore.

9896 NAVALSPECIAL WARFARE UUV SENSORS AND C2 STTR	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	1.000	0.000
RDT&E Articles Quantity			

FY06 - Congressional increase for Naval Special Warfare UUV Sensors and C2 STTR

Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, page 86)