CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7

R-1 ITEM NOMENCLATURE
PE: 0204163N TITLE: FLEET COMMUNICATIONS

COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	**21.761**	**32.149**	**27.189**	**21.794**	**15.810**	**14.472**	**14.755**
0725 Communications Automation	**2.249**	**15.787**	**15.358**	**11.028**	**5.433**	**4.090**	**4.125**
1083 Shore to Ship Communications	**16.235**	**16.362**	**11.831**	**10.766**	**10.377**	**10.382**	**10.630**
9999 Congressional Plus Up	**3.277**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

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

The Communications Automation Program - This project is a continuing program that provides for automation and communications upgrades for Fleet tactical users. It includes Tactical Messaging (formerly Naval Modular Automated Communications System/Single Messaging Solution II (NAVMACS/SMSII), Joint Network Management System (JNMS), Automated Digital Network System (ADNS), Naval Global Directory Services, and Tactical Switching Ashore [formerly Shore Infrastructure Modernization (SIM)].

ADNS is the method by which Tactical Navy Units (Surface, Subsurface, and Air Deployed Assets) transfer Internet Protocol (IP) Data to the Global Information Grid (GIG). ADNS serves as a "Gateway" to enable Joint and Coalition interoperability for these Tactical assets and ensures GIG connectivity.

Tactical Messaging (formerly NAVMACS/SMSII) developed joint/combined individual and organizational message handling for United States Naval ships and submarines, United States Marine Corp (USMC) vans, and selected Military Sealift Command (MSC) and United States Coast Guard (USCG) platforms. Tactical Messaging (NAVMACS II/SMS) develops fleet interfaces to Defense Messaging System (DMS) and legacy ashore messaging systems.

Naval Global Directory Service (NGDS): The NGDS will develop a directory services architecture providing enhancements and efficiencies for security, application accessibility, and Naval Identity Management (IdM) that span Naval enterprise-wide operations across the Navy Marine Corps Intranet (NMCI), OCONUS Navy Enterprise Network (ONE-NET), and Naval Afloat Networks/IT-21 network domains. The projected NGDS capabilities include: Authentication to enterprise applications; Support for an enterprise SSO solution; Backbone for federating (sharing) identity data amongst the Naval Domains, afloat environments, and external sources; Storage for Public Key Infrastructure (PKI) material and other credentials; Basic “Locator” services.

The NGDS builds upon the initial research, development and deployment of the Navy Marine Corps White Pages, in addition to other requirements such as the Navy Marine Corps Intranet’s (NMCI) directory service, Navy Marine Corps Portal (NMCP) directory service and Single Sign On (SSO) initiatives, and the IT-21 Windows 2000 shipboard integrated directory service and supporting Unified Account Management (UAM) product. The projected NGDS capabilities include: Authentication to enterprise applications; Support for an enterprise SSO solution; Domain Naming Service (DNS) for a Naval Enterprise network De-Militarized Zone (DMZ); Backbone for federating (sharing) identity data amongst the Naval Domains, afloat environments, and external sources; Storage for Public Key Infrastructure (PKI) material and other credentials; Basic “Locator” services; Additional advanced directory or identity based functions.

NGDS delivers an integrated directory service infrastructure across the Naval enterprise both ashore and afloat by building trusted relationships between people, applications, services, and other resources throughout the network. Once established, NGDS must manage and maintain these relationships regardless of the user’s or services location.

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: **February 2006**
APPROPRIATION/BUDGET ACTIVITY **RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7**	R-1 ITEM NOMENCLATURE PE: 0204163N TITLE: FLEET TACTICAL DEVELOPMENT

Automated Digital Network System (ADNS): provides routing, switching, baseband, configuration and monitoring capabilities for interconnecting Naval, Coalition and Joint enclaves worldwide. ADNS utilizes Commercial Off the Shelf/ Government Off the Shelf (COTS/GOTS) equipment and network protocols as specified by the Joint Technical Architecture. ADNS Increment I provides initial limited, Ship to Shore Internet Protocol (IP) connectivity, separation of enclaves, reuse of unused enclave bandwidth, and Ship to tactical Shore IP connectivity. ADNS Increment II provides additional capabilities of Load Balancing, Radio Frequency (RF) Restoral, Initial Quality of Service (QoS) to include application prioritization, Initial Traffic Management, and enhancements designed to maximize use of "effective" available bandwidth. ADNS Increment III will converge all Navy Tactical Voice, Video, and Data requirements into a converged IP Data stream. In addition, the Increment III architecture will be based on an IPv6 and a "Black Core" security architecture to align to the GIG in order to mesh Navy Tactical Surface, Subsurface, and Airborne platforms into a single IP environment with Gateway functions to Joint and Coalition Networks. ADNS Increment III will serve as the Navy Tactical Interface (Gateway) for IP Networking with Transformational Satellite (TSAT), Joint Tactical Radio System (JTRS), High Assurance Internet Protocol Encryptor (HAIPE), Advanced Extremely High Frequency (AEHF), and other Future DoD Transformational C4I Programs.

The Tactical Switching Ashore (TSw) Infrastructure Modernization (SIM) program rebuilds 1970s based shore high frequency based infrastructure to current and future scalable technical standards in order to provide a commercially standardized, technically compliant, and robust network. Tactical Switching Ashore will migrate the shore sites and their terrestrial interconnections into a coherent, scalable, network-centric capability. While leveraging off recent shore upgrades for the major shore communication regions, TSw will incorporate a system integrator approach to develop, design, and implement a plan to remove bandwidth limitations, create redundant communications paths, provide secure and available communications, provide dynamic bandwidth management, and reduce costly dependencies on legacy systems. This plan will be designed to increase efficiencies, and reduce manpower and the overall footprint of the Navy's shore sites. TSw will bring new technologies and capabilities that converge legacy, circuit-based, communications to a standard, integrated, and interoperable IP network. This enabling system, of which FORCEnet is a part, supports the four pillars of Sea Power 21 by providing the infrastructure required to support collaborative decision-making, faster decision cycles, and shared superior situational awareness required to fight the War on Terrorism.

The Shore to Ship Communications System develops communications systems elements which provide positive command and control of deployed Ship, Submersible, Ballistic, Nuclear (Submarines (SSBNs), Ship, Submersible, Guided Nuclear (Submarines (SSGNs) and attack Ship, Submersible Nuclear (Submarines (SSNs). Provides the communication elements for continuous assessment of the command and control link between Secretary of Defense and missile platforms. Provides the joint system design for Emergency Action Message (EAM) distribution to all nuclear platforms. Provides the tools for strategic command and control planning to deployed SSBNs including shore infrastructure.

Low Band Universal Communications System (LBUCS) will provide operational capability, through the Very Low Frequency architecture, to insure system life extension and flexibility of Submarine Broadcast traffic to the submarine in stealth posture. The flexibility includes bandwidth efficiency, ensuring more operational products are delivered to a submarine without risking mast exposure.

The shore Submarine Operating Authority (SUBOPAUTH) was downsized from six to four nodes. In order to ensure Continuity of Operations (COOP) and ongoing robustness in a reduced architecture, the SUBOPAUTH architecture provides for increased commonality among SUBOPAUTHs. This ensures robust operation, improved integration between Submarine Operational Control and support communications, and Continuity of Operations in the event of a SUBOPAUTH casualty.

The Joint Integrated System Technology for Advanced Networking Systems (JIST-NET) project is an ongoing effort to integrate, develop, and support Military SATCOM multi-spectrum communications planning, management, and control capabilities that interface with many mono-spectral planning and management tools and with advanced planning tools. This project has extremely high visibility within the Department Of Defense (DoD) and United States Congress. The project was moved to Program Executive Office Command, Control, Communication, Computers (PEO C4I) & Space, Program Manager Warfare (PMW) 176 from the United States Air Force starting in FY04 to better meet the requirements, deadlines, and funding priorities established for the project.

Congressional plus-up to support development of a Floating Area Network (FAN) plan and architecture enabling a direct Line of Sight (LOS), wireless, TCP/IP network among intra-battle group ships.

Congressional plus-up to support development of a portable Cole emergency radio system (MRC-105 Emergency Radio).

R-1 SHOPPING LIST - Item No. 172

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-7	PE: 0204163N TITLE: FLEET COMMUNICATIONS	

(U) B. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2005	FY 2006	FY 2007
FY06 President's Budget:	22.874	32.694	26.674
FY07 President's Budget Estimate:	21.761	32.149	27.189
Total Adjustments	-1.113	-0.545	0.515

Summary of Adjustments * Include Issue No. & Cong. Language Sec. if applicable

FORCEnet Submarine Broadcast Support			-1.500
FORCEnet Realign Tactical Switching Funding			5.000
FORCEnet Realign Automated Digital Network			1.600
Contract Support Reduction			-2.301
Shipboard Communications Adjustment			-1.500
NWCF Civpers Efficiencies			-0.102
UHF SATCOM Integrated Waveform OSD			-1.000
Small Business Innovation Research	-0.289		
Nuclear Physical Security (OSD-09)	0.003		
Inflation			0.142
CIVPERS PAY RAISE RATE CHANGE			0.007
Sec. 8026(f): Federally Funded Research		-0.054	
Sec. 8125: Revised Economic Assumptions		-0.149	
Congressional Action 1% Reduction		-0.342	
Department of Energy Transfer	-0.018		
Misc Navy Adjustments	-0.809		0.169
Subtotal	-1.113	-0.545	0.515

(U) Schedule:

CSRR redesignated from Acquisition Category (ACAT) III to ACAT II per Assistant Secretary of the Navy Research, Development and Acquisition (ASN (RD&A) memorandum dated 19 April 2005. CSRR program Milestone C 3rd QTR FY05. TEMP approved April 2005 the proceedings for CSRR milestone C.
LBUCS will initiate at Milestone B.

(U) Technical:

Not Applicable.

CLASSIFICATION:
UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification			DATE: **February 2006**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PE: 0204163N TITLE: FLEET TACTICAL DEVELOPMENT	PROJECT NUMBER AND NAME 0725 Communications Automation	

COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**2.249**	**15.787**	**15.358**	**11.028**	**5.433**	**4.090**	**4.125**
RDT&E Articles Qty							

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

This project is a continuing program that provides for automation and communications upgrades for Fleet tactical users. Tactical Messaging, formerly The Naval Modular Automated Communications System II (NAVMACS II/Single Messaging Solution (SMS) is the network centric Internet Protocol (IP) solution for the processing, storage, distribution and forwarding of General Service and Defense Messaging System (DMS) organizational messages to the user's desktop throughout the Integrated Shipboard Networks System (ISNS). The Joint Network Management System (JNMS) is a CINC, Commander, Joint Forces (CJF) joint communications planning system with the Department of the Army as the Executive Agent. It is intended to be an automated software system including capabilities for planning and engineering, monitoring, control and reconfigurations, spectrum management and security. Automated Digital Network System (ADNS): provides routing, switching, baseband, configuration and monitoring capabilities for interconnecting Naval, Coalition and Joint enclaves worldwide. ADNS utilizes Commercial Off the Shelf/ Government Off the Shelf (COTS/GOTS) equipment and network protocols as specified by the Joint Technical Architecture. ADNS Increment I provides initial limited, Ship to Shore Internet Protocol (IP) connectivity, separation of enclaves, reuse of unused enclave bandwidth, and Ship to tactical Shore IP connectivity. ADNS Increment II provides additional capabilities of Load Balancing, Radio Frequency (RF) Restoral, Initial Quality of Service (QoS) to include application prioritization, Initial Traffic Management, and enhancements designed to maximize use of "effective" available bandwidth. ADNS Increment III will converge all Navy Tactical Voice, Video, and Data requirements into a converged IP Data stream. In addition, the Increment III architecture will be based on an IPv6 and a "Black Core" security architecture to align to the GIG in order to mesh Navy Tactical Surface, Subsurface, and Airborne platforms into a single IP environment with Gateway functions to Joint and Coalition Networks. ADNS Increment III will serve as the Navy Tactical Interface (Gateway) for IP Networking with TSAT, JTRS, HAIPE, AEHF, and other Future DoD Transformational C4I Programs. Global Directory Service (NGDS): Naval Global Directory Services is a key component of the infrastructure that will be leveraged to support a variety of network operations. The NGDS will develop a directory services architecture providing enhancements and efficiencies for security, application accessibility, and naval Identity Management (IdM) that span Naval enterprise-wide operations across the Navy Marine Corps Intranet (NMCI), OCONUS Navy Enterprise Network (ONE-NET), and Naval Afloat Networks/IT-21 network domains. The NGDS builds upon the initial research, development and deployment of the Navy Marine Corps White Pages, in addition to other requirements such as the Navy Marine Corps Intranet's (NMCI) directory service, Navy Marine Corps Enterprise Services (NMES) directory service and Single Sign On (SSO) initiatives, and the IT-21 Windows 2000 shipboard integrated directory service. NGDS delivers an integrated directory service infrastructure across the Naval enterprise both ashore and afloat by building trusted relationships between people, applications, services, and other resources throughout the network. Once established, NGDS will manage and maintain these relationships regardless of the user's or services location. Tactical Switching Ashore will support the migration of the shore sites and their terrestrial interconnections into a coherent, scalable, network capability.

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

UNCLASSIFIED

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 7	PE: 0204163N TITLE: FLEET TACTICAL DEVEL	0725 Communications Automation

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Automated Digital Network System (ADNS)	0.675	6.329	5.060
RDT&E Articles Quantity			

FY05: Planned and conducted interoperability and operational testing for ADNS Increment I and Increment II. Developed advanced traffic management and control and Quality of Service (QoS) capabilities. Demonstrated dynamic routing scheme. Continued support of FORCEnet demonstrations (Trident Warrior series). Funds provided for the development of the Assured IP Program.
FY06: Complete Increment II and IIa Operational Testing. Award contract for system development and demonstration for Increment III. Increment III will provide converged voice, video, and data; increased bandwidth capacity upgrades to allow transfer at 25 and 50 Mbps; conversion to a Black Core Security Backbone using Internet Protocol version 6 capability, and the ability to converge all Surface, Subsurface, and Airborne Units into a Meshed contiguous IP environment. During the System Development and Demonstration phase the contractor will conduct system requirements review and deliver an ADNS Increment III system and subsystem specification.
FY07: Continue the system development and demonstration phase of ADNS Increment III. Conduct system Preliminary Design Review. Develop and update system and subsystem design documentation. Procurement of Engineering Demonstration Models (EDM's) to facilitate Industry involvement and open competition.

	FY 05	FY 06	FY 07
Tactical Messaging (NAVMACS)	1.146	1.131	0.000
RDT&E Articles Quantity			

FY05: Continued development and test efforts for emerging technology and product upgrades such as COTS SW/HW refresh for all enclaves and USN platforms. Conducted DMS 3.1 Operational Assessment. Continued development of DMS/ISNS co-host for bandwidth advantaged platforms. Supported end to end testing of IP broadcast.
FY06: Continue development and test efforts for emerging technology and product upgrades. Initiate development of way-ahead messaging for unit level platforms to include DMS Proxy Solution to allow shipboard messaging consumers to communicate with shore based Automated Message Handling Systems (AMHS). Conduct operational testing for the DMS/ISNS co-host messaging solution.

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CLASSIFICATION:

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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 7	PE: 0204163N TITLE: FLEET TACTICAL DEVEL	0725 Communications Automation

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Naval Global Directory Services	0.428	0.407	0.334
RDT&E Articles Quantity			

FY05: Continue the development of the Naval Global Directory Service (NGDS) - enterprise wide, integrated directory service architecture. Assist in the continuing convergence of NMCI, ONE-NET, and IT-21 environments. Provide developmental engineering support for shore-based identity data sharing/synchronization. Support Navy directed testing efforts.
FY06: Continue the development of the Naval Global Directory Service (NGDS) - enterprise wide, integrated directory service architecture. Assist in the continuing convergence of NMCI, ONE-NET, and IT-21 environments. Provide developmental engineering support for establishment of the Naval Network Identity (NNI) Registry Service to be used to register/issue unique identifiers to all Naval users. Support Navy directory testing efforts.
FY07: Continue the development of the Naval Global Directory Service (NGDS) - enterprise wide, integrated directory service architecture. Assist in the continuing convergence of NMCI, ONE-NET, and IT-21 environments. Provide developmental engineering support for ship-to-shore identity data sharing/synchronization, and continue integration of shore authoritative identity sources

	FY 05	FY 06	FY 07
Tactical Switching (Ashore)		7.920	9.964

FY06: Initiate Phase 2A Network Management and Control System (NMS) (Management Capability). Develop an Request for Procurement (RFP) for global integration to, develop Commander Critical Information Requirements (CCIRs), Information Exchange Requirements (IERs) and Reporting constructs supporting the NMS deployment. Additionally select a system integrator to develop a shore communications architecture that will Automate, Remote or Consolidate communications technical control facilities to the extent possible supporting migration of all services to an all IP infrastructure. Identification and integration of interfaces supporting DoD Teleport and the Global Information Grid-Bandwidth Expansion (GIG-BE). The requirement for this architecture is to provide a seamless connection between the shore tactical support infrastructure and the deployed user. In addition, the program will build upon the current COTS NMS capability (situational awareness / monitoring) to develop management and control capabilities. The procurement of the phase 2A Management capability will occur in FY07.
FY07: Initiate Phase 2B NMS (Automation Capability). Complete the development of the tactical support architecture effort that began in FY06. Develop and design a plan to eliminate bandwidth limitations within the architecture by; designing redundant communications paths either physical or virtual, provide real time integrated security, enable dynamic bandwidth management, and reduce costly dependencies on legacy systems. In addition, the program will expand the monitoring, management, and control capability developed in FY06/FY07 to fully automate the NMS capability. This new capability requires less manual intervention and will serve as the backbone technology to reduce the Navy communication facilities infrastructure from 4 Fleet Network Operation Centers (NOCs) to 2 Regional Network Operations and Security Centers (RNOSC). Efforts outlined in Phase 2A and 2B provide the foundation for reducing the manpower and facilities which will enable substantial FYDP savings.

CLASSIFICATION:

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EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2006**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT NUMBER AND NAME PE: 0204163N TITLE: FLEET TACTICAL DEVEL	PROJECT NUMBER AND NAME 0725 Communications Automation

(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
3050 – Comm Auto - Tactical Messaging	8.869	11.602	4.863	11.704	12.615	12.641	3.982	Continuing	Continuing
3050 – Comm Auto – ADNS	41.798	23.910	19.354	48.949	39.864	30.746	41.120	Continuing	Continuing
3050 – Comm Auto – Tactical Switching (Ash	17.589	23.622	32.230	34.908	34.566	27.815	24.250	Continuing	Continuing

(U) E. ACQUISITION STRATEGY: *

ADNS: Evolutionary acquisition approach with overlapping development and implementation phases for defined Increment I, II, and III incremental baselines. Increment I and II will use existing competitively awarded contracts; however, Increment III will be based on a new Contracting Strategy to include the use of innovative contract types that implement changes consistent with acquisition streamlining initiatives. Aggressively leverage COTS products while capitalizing on acquisition reform initiatives to achieve material savings in the logistics, installation, integration and training areas. Where feasible, differing types of advantageous contract vehicles will be used to provide flexibility, decreased contract administrative costs, and encourage acquisition streamlining through the use of COTS products.

Tactical Messaging (formally NAVMACS): The Tactical Messaging acquisition approach has evolved according to key technology advances, resulting incremental developmental phases, and the principals of acquisition reform. While initial production units were acquired through competitively awarded vehicles, future contracting will also embrace acquisition streamlining initiatives in addition to maintaining the benefits of competitive, best value contracting.

-NGDS: Evolutionary acquisition approach with overlapping development and implementation phases to mitigate technical and financial risks. Integrate rapidly evolving technologies as deemed feasible and acceptable based on security and operational risks. Leverage COTS products and existing Navy/GSA contracts for small-scale implementation if NGDS hardware and software.

-Tactical Switching Ashore Evolutionary acquisition approach with overlapping development and implementation phases. Use existing contract vehicles during Phase One implementation of procurement upgrades to existing shore legacy equipment at the major communication centers (NCTAMS PAC, NCTAMS LANT, NCTAMS EURCENT, NCTS Bahrain, and NCTS San Diego) and to include 40+ shore communication facilities (COMSTATIONs, NOCs, Mini-NOCs, and STEP sites). Phase One upgrades serve as an enabler to Phase Two activities. Based upon the future shore communication architecture as defined by the Navy, Phase Two transitions the Navy's 3 NCTAMS and two major NCT Shore infrastructure to a 2 regional network operations and security center (RNOSC) and 1 global network operations and security center (GNOSC) concept to achieve a Joint/DoD Net-Centric environment. Phase 2 will be organized into three steps. Each step will build upon the previous step and serve as risk mitigation for the succeeding step. This strategy provides flexibility in a rapidly evolving technology environment and allows earlier implementation of developmental technology as it becomes available.

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

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Exhibit R-3 Cost Analysis (page 1)

DATE: **February 2006**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-7**

PROGRAM ELEMENT: PE: 0204163N TITLE: FLEET TACTICAL DEVEL

PROJECT NUMBER AND NAME: 0725 Communications Automation

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	PO	SSC	2.825	0.200	TBD						3.025	
Primary Hardware Development	TBD	TBD				1.000	TBD	1.000	TBD	Continuing	Continuing	
Systems Engineering	WX	SSC	9.176	0.240	Dec-04	1.560	TBD	0.618	TBD	Continuing	Continuing	
Systems Engineering	VAR	VAR	0.468			3.068	TBD	4.253	TBD	Continuing	Continuing	
Systems Engineering	TBD	TBD		0.000		1.502	TBD	0.879	TBD	Continuing	Continuing	
Prime Mission Product	PO	SSC	3.548	0.438	Dec-04	0.386	TBD	0.617	TBD	Continuing	Continuing	
Subtotal Product Development			16.017	0.878		7.516		7.367		0.000	31.778	

Remarks:

Development Support	WX	SSC				0.160	TBD	0.290	TBD		0.450	
Software Development	Var	Various	4.215	0.394	Dec-04	0.917	TBD	1.026	TBD	Continuing	Continuing	
Integrated Logistics Support	TBD	TBD				1.000	TBD	0.900	TBD		1.900	
Documentation	TBD	TBD		0.280							0.280	
Technical Data	TBD	TBD				0.500	TBD	0.500	TBD		1.000	
Studies and Analysis	WX	SSC				0.960	TBD	1.600	TBD		2.560	
Subtotal Support			4.215	0.674		3.537	TBD	4.316	TBD	Continuing	Continuing	

Remarks:

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Exhibit R-3 Cost Analysis (page 2)

DATE: **February 2006**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-7**

PROGRAM ELEMENT: PE: 0204163N TITLE: FLEET TACTICAL DEVEL

PROJECT NUMBER AND NAME: 0725 Communications Automation

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	SSC		0.274	TBD	1.300	Jan-06	0.314	Dec-05	Continuing	Continuing	
Operational Test & Evaluation	VAR	VAR	3.882	0.117	Dec-04	0.300	TBD	0.017		Continuing	Continuing	
Operational Test & Evaluation	MIPR	OPTEVFOR	0.315	0.056	TBD						0.371	
Operational Test & Evaluation	VAR	VAR	0.350								0.350	
Subtotal T&E			4.547	0.447		1.600		0.331		Continuing	Continuing	
Remarks:												
Contractor Engineering Support	VAR	VAR	0.246	0.075	Dec-04	0.160	Jun-06	0.775	Jun-07	Continuing	Continuing	
Government Engineering Support	WX	SSC		0.044	Dec-04	0.336	Dec-05	0.041	Dec-06			
Program Management Support	VAR	SSC	1.704	0.131	Dec-04	0.138	VAR	0.739	VAR	Continuing	Continuing	
Program Management Support	VAR	VAR	1.263			2.500	Sep-05	1.789	Sep-05	Continuing	Continuing	
Subtotal Management			3.213	0.250		3.134		3.344		Continuing	Continuing	
Remarks:												
Total Cost			27.992	2.249		15.787		15.358		Continuing	Continuing	

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CLASSIFICATION:

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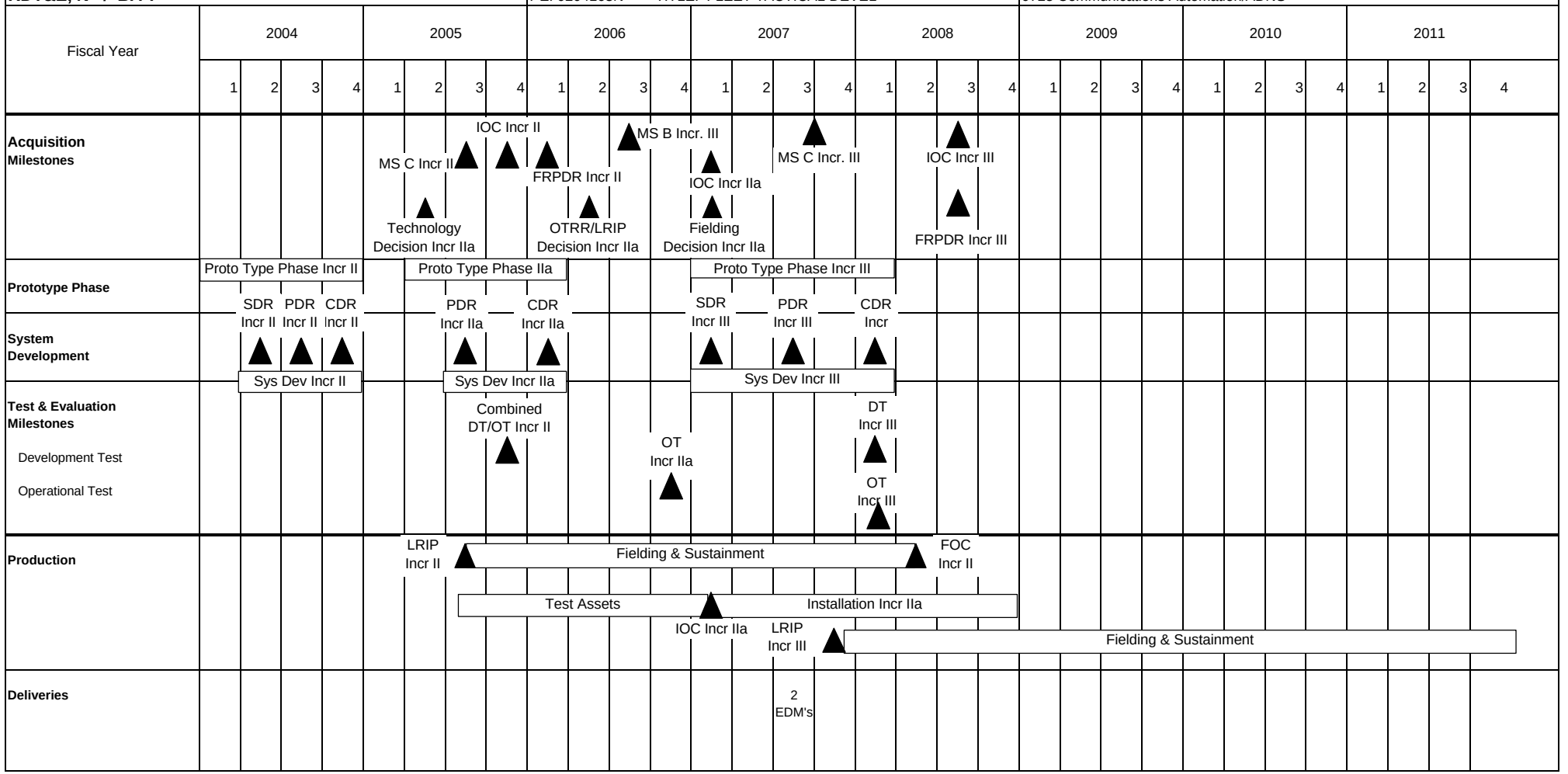
EXHIBIT R4, Schedule Profile | DATE: **February 2006**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-7**

PROGRAM ELEMENT NUMBER AND NAME: PE: 0204163N TITLE: FLEET TACTICAL DEVEL

PROJECT NUMBER AND NAME: 0725 Communications Automation/ADNS



R-1 SHOPPING LIST - Item No. 172

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

1. Initial OPEVAL Q2, 01. Subsequent discussions between OPNAV, COTF, and Program Office agreed the submarine variant of ADNS required additional Operational testing.

CLASSIFICATION:

UNCLASSIFIED

Exhibit R-4a, Schedule Detail						DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT				PROJECT NUMBER AND NAME			
RDT&E, N / BA-7	PE: 0204163N TITLE: FLEET TACTICAL DEVEL				0725 Communications Automation/ADNS			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
INCREMENT I *								
***SUBMARINE** *								
Prototype Phase *								
System Design Review (SDR) *								
Preliminary Design Review (PDR) *								
System Development *								
Critical Design Review (CDR) *								
Initial Operational Capability (IOC) *								
Developmental Testing (DT) *								
Operational Testing (OT) *								
INCREMENT II								
*Initial Traffic Management, Shore **(TMS)***								
Prototype Phase	1-4Q							
System Design Review (SDR)	2Q							
Preliminary Design Review (PDR)	3Q							
System Development	2-4Q							
Critical Design Review (CDR)	4Q							
Initial Operational Capability (IOC)		4Q						
Developmental Testing (DT)		4Q						
Operational Testing (OT)		4Q						
Low Rate Initial Production (LRIP)		3Q						
Full Operational Capability (FOC)					2Q			
*Initial QOS **(IQOS)***								
Prototype Phase	1-4Q							
System Design Review (SDR)	2Q							
Preliminary Design Review (PDR)	3Q							
System Development	2-4Q							
Critical Design Review (CDR)	4Q							
INCREMENT IIa								
*Voice Over IP **(VOIP)***								
Technology Decision		2Q						
Prototype Phase		2Q-4Q	1Q					
Preliminary Design Review (PDR)		3Q						
System Development		3Q-4Q	1Q					
Critical Design Review (CDR)			1Q					
OTRR/LRIP Decision			2Q					
Operational Testing (OT)			4Q					
Fielding Decision				1Q				
Initial Operational Capability (IOC)				1Q				
INCREMENT III								
Core Capability - Converged IP, Meshed, IPv6, Black Core, 25/50 Mbps					FY08	FY09	FY10	FY11
Milestone B (MS B)			3Q					
Prototype Phase				1Q-4Q	1Q			
System Design Review (SDR)				1Q				
Preliminary Design Review (PDR)				3Q				
System Development				1Q-4Q	1Q			
Milestone C (MS C)				3Q				
Critical Design Review (CDR)					1Q			
Developmental Testing (DT)					1Q			
Operational Testing (OT)					1Q			
Low Rate Initial Production (LRIP)				4Q	2Q			
Full Rate Production Decision Review (FRPDR)				3Q				
Initial Operational Capability (IOC)				3Q				

' R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

UNCLASSIFIED

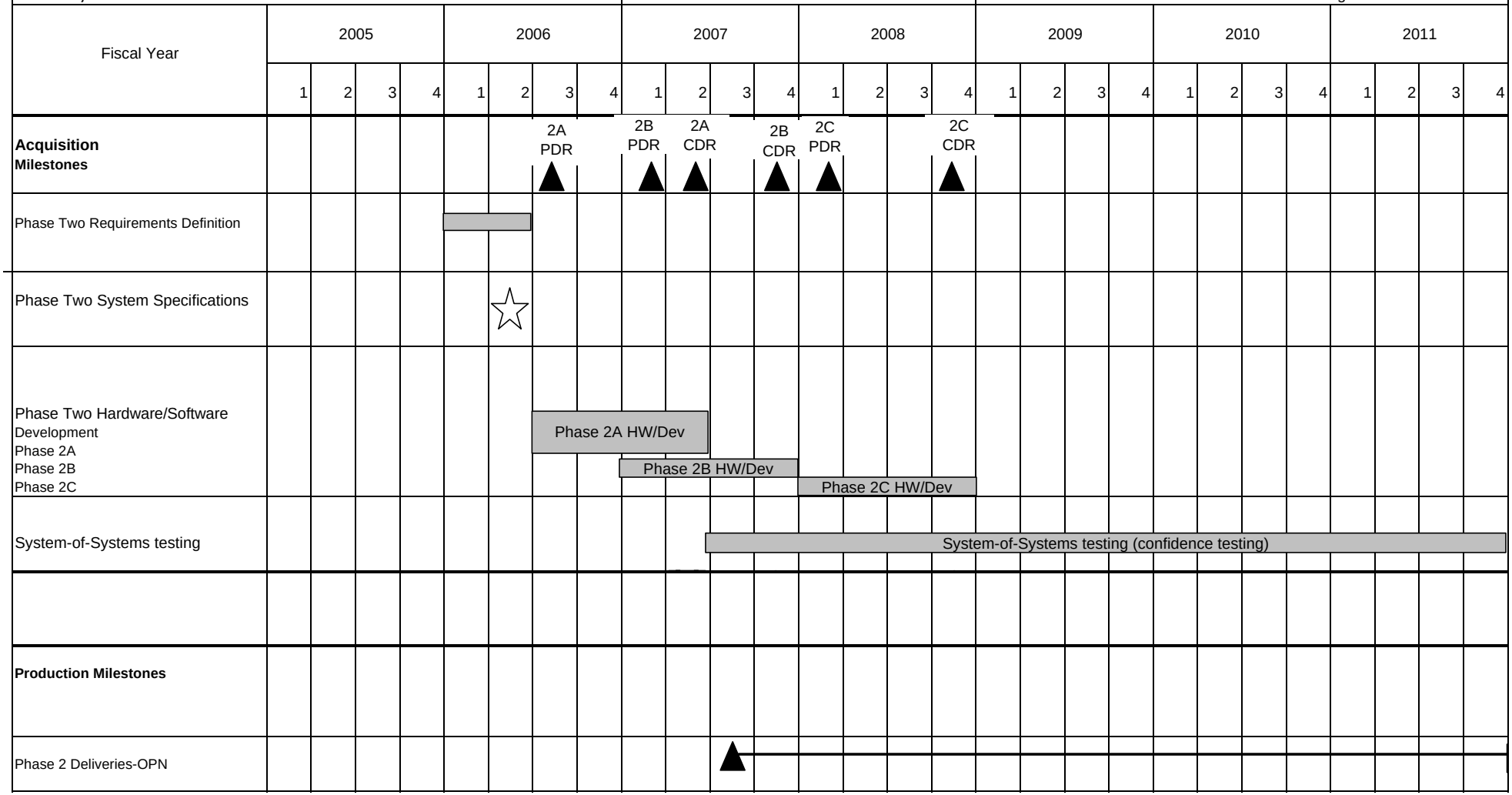
EXHIBIT R4, Schedule Profile

DATE: **February 2006**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-7**

PROGRAM ELEMENT NUMBER AND NAME: PE: 0204163N TITLE: FLEET TACTICAL DEV

PROJECT NUMBER AND NAME: 0725 Communications Automation-Tactical Switching Ashore



R-1 SHOPPING LIST - Item No. 172

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

Exhibit R-4a, Schedule Detail					DATE: **February 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N BA-7**	PROGRAM ELEMENT PE: 0204163N TITLE: FLEET TACTICAL DEVEL				PROJECT NUMBER AND NAME 0725 Communications Auto-Tactical Switching Ashore		
Schedule Profile - Tactical Switching Ashore	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Preliminary Design Review (PDR) Phase IIA		3Q					
Preliminary Design Review (PDR) Phase IIB			1Q				
Preliminary Design Review (PDR) Phase IIC				1Q			
Critical Design Review (CDR) Phase IIA			2Q				
Critical Design Review (CDR) Phase IIB			4Q				
Critical Design Review (CDR) Phase IIC				4Q			
Phase II Requirements Definition		1Q-2Q					
Phase II System Specifications		2Q					
Hardware/Software Development Phase IIA		3Q-4Q	1Q-2Q				
Hardware/Software Development Phase IIB			1Q-4Q				
Hardware/Software Development Phase IIC				1Q-4Q			
System-of-Systems Testing			3Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Development Test/Operation Test (DT/OT) Phase IIA			2Q				
Development Test/Operation Test (DT/OT) Phase IIB			4Q				
Development Test/Operation Test (DT/OT) Phase IIC				4Q			
Deliveries - OPN			3Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q

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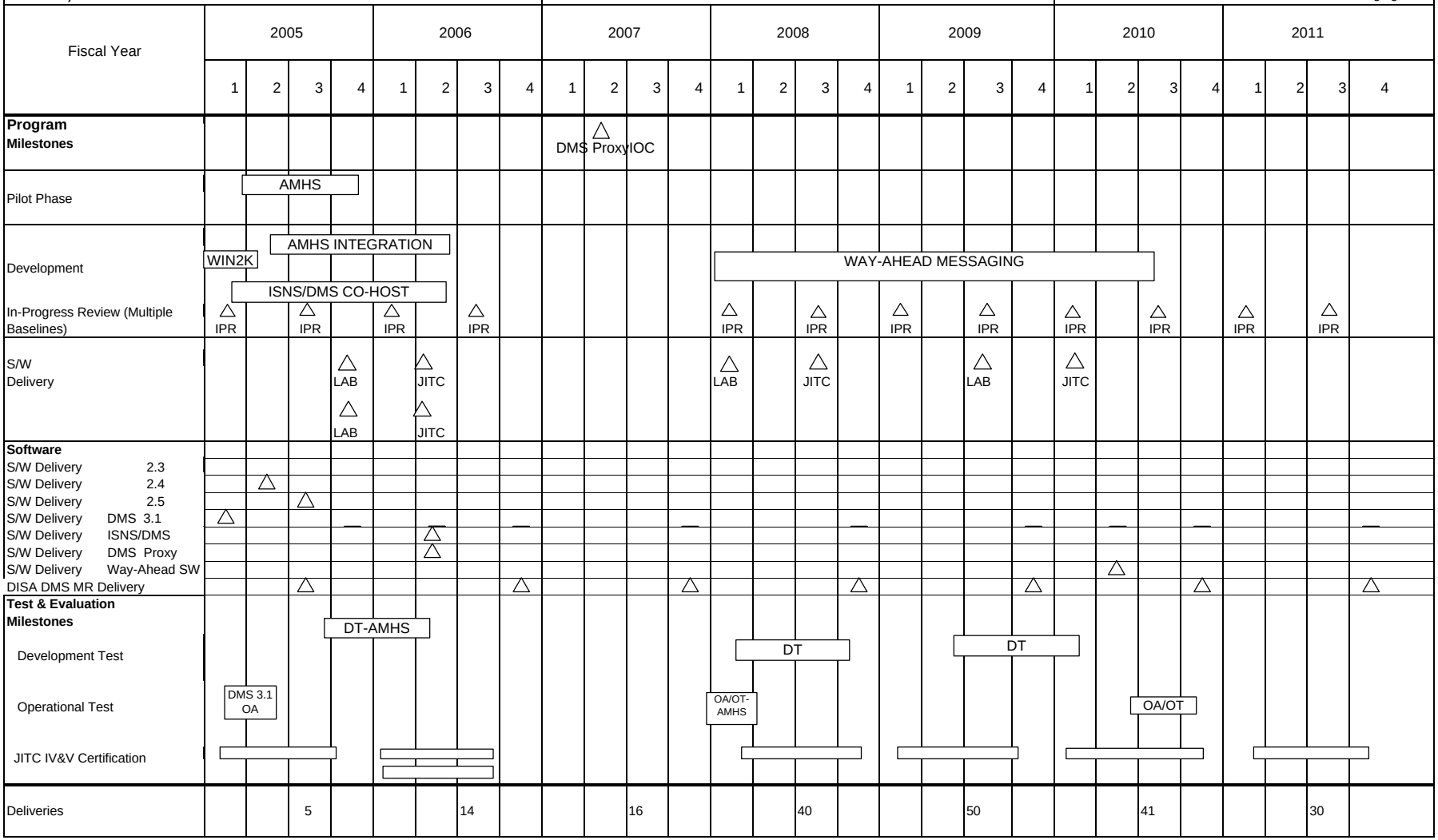
CLASSIFICATION:

UNCLASSIFIED

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

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N TITLE: FLEET TACTICAL DEVEL	0725 Communications Automation/Tactical Messaging



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

CLASSIFICATION:

UNCLASSIFIED

Exhibit R-4a, Schedule Detail						DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT PE: 0204163N TITLE: FLEET TACTICAL DEVEL				PROJECT NUMBER AND NAME 0725 Communications Automation/Tactical Messaging		
Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
DMS Proxy IOC			2Q				
Win2K/Development	1Q-2Q						
IP Broadcast							
Way-Ahead Messaging				1Q-4Q	1Q-4Q	1Q-3Q	
ISNS/DMS CO-HOST	1Q-4Q	1Q-2Q					
IPR	1Q,3Q	1Q,3Q		1Q,3Q	1Q,3Q	1Q,3Q	1Q,3Q
EMD - Lab	4Q			1Q	3Q		
EMD - JITC		2Q		3Q		1Q	
S/W Delivery 2.3							
S/W Delivery 2.4	2Q						
S/W Delivery 2.5	3Q						
S/W Delivery DMS 3.1	1Q						
S/W Delivery ISNS/DMS		2Q					
S/W Delivery AMHS		2Q					
S/W Delivery Way-Ahead						2Q	
DISA DMS MR	4Q	4Q	4Q	4Q	4Q	4Q	4Q
Development Test	3Q-4Q	1Q-2Q		1Q-4Q	2Q-4Q	1Q	
Operational Assessment/Test	1Q-2Q	2Q-3Q		1Q		2Q-4Q	
JITC IV&V Certification	1Q-4Q	1Q-3Q		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Deliveries	5	14	16	40	50	41	30

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: **February-06**
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PE: 0204163N TITLE: FLEET COMMUNICATIONS			PROJECT NUMBER AND NAME 1083 Shore to Ship Communications		

COST ($ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**16.235**	**16.362**	**11.831**	**10.766**	**10.377**	**10.382**	**10.630**
RDT&E Articles Qty							

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

This project develops communication system elements which provide positive command and control of deployed Ship, Submersible, Ballistic, Nuclear (SSBNs) and fleet submarine broadcast connectivity to Ship, Submersible, Nuclear (SSNs), Ship, Submersible, Guided Missile (SSGNs) and SSBNs. This project provides enhancements to the shore-to-ship transmitting systems and provides submarine capabilities to the Broadcast Control Authority (BCA) consistent with the Network Operation Center (NOC) architecture. The BCA provides the oversight and control for all fixed submarine broadcasts. Effective utilization of this communications system's performance is provided via the Strategic Communications Assessment Program (SCAP). The Continued Evaluation Program (CEP) provides constant assessment of the effectiveness of the end-to-end network. The Submarine Operating Authority (SUBOPAUTH) includes both Submarine Communications and Operational Control (OPCON) at shore sites. A SUBOPAUTH architecture provides for back-up capability among the four Broadcast Control Authority/ Operational Control (BCA/OPCONs) to ensure Continuity of Operations (COOP) in the event of a BCA outage. The Common Submarine Radio Room (CSRR) integrates Commercial Off The Shelf (COTS) and Government Off The Shelf (GOTS) components into a single radio room configuration for all classes of submarines. The CSRR design is based on the Virginia class radio room and is adapted for each platform's hull shape and mission needs. Technologies to improve high voltage insulators, helix house bushings and antenna components used in the Fixed Very Low Frequency VLF (FVLF) transmit systems are evaluated and tested through the High Voltage Improvement Program (HVIP). The Nuclear Command, Control and Communications Long Term Solution (NC3 LTS) will provide a communications approach in support of the Joint Operational Architecture (JOA) for time-critical Emergency Action Messages (EAMs) to be disseminated across Areas of Responsibility (AOR's) in support of Joint operations This project implements the Joint Staff EAM Board of Directors (BoD) direction for a viable long-term EAM dissemination solution (NC3 LTS) and that near term enhancements enable the interim hybrid solution to have an infrastructure to allow life sustainment until a replacement system comes on-line. Low Band Universal Communications System (LBUCS) provides operational capability, through the Very Low Frequency architecture, to insure system life extension and flexibility of Submarine Broadcast traffic to the submarine in stealth posture. The flexibility includes enhanced throughput, ensuring more operational products are delivered to a submarine without risking mast exposure. The Submarine Enhanced Emergency Alert System (SEEAS) replaces the Army-Navy/BST-1 (AN/BST-1) transmitter buoy used to communicate "in extremis" messages to the Fleet Commander from an SSBN on patrol that had been rendered incapable of performing its mission either by hostile action or by a casualty.

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February-06
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N TITLE: FLEET COMMUNICATIONS		1083 Shore to Ship Communications

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07	
High Voltage Improvement Program	0.431	0.448	0.427	
RDT&E Articles Quantity				

FY05 Accomplishments: Completed development of remote corona monitoring/sensing system capability for FVLF sites. Completed investigation on helix house bushings and guy insulators. Began the investigation into new materials for sustained long term operation in high electromagnetic fields. **FY06:** Complete investigation into new materials for sustained long term operation in high electromagnetic fields. Begin examination of sealed Helix variometers for antenna tunning. **FY07:** Complete examination of sealed Helix variometers for antenna tunning. Begin examination of ultra quick cut off devises to prevent overload conditions.

	FY 05	FY 06	FY 07	
Common Submarine Radio Room (CSRR)	0.900	0.936	0.943	
RDT&E Articles Quantity				

FY05 Accomplishment: Completed land-based testing of SSBN variant of CSRR. Due to ship availability the SEAWOLF OPEVAL will be completed FY06.
FY06: Complete integration, system certification and operational assessment of SSBN variant of CSRR. Conduct SEAWOLF OPEVAL Initiate modernization of Phase I.
FY07: Complete OPEVAL of SSBN variant and initial a system upgrades. Complete modernization of Phase I development.

	FY 05	FY 06	FY 07	
SCAP/CEP	4.539	4.481	4.423	
RDT&E Articles Quantity				

FY05 Accomplishments: Continued Strategic Communications Continuing Assessment Program (SCAP) providing Commander Naval Submarine Force (COMNAVSUBFOR) Force Management and Force Direction products. Conducted Continuing Evaluation Program (CEP) analyzing each TRIDENT patrol and special message tests to verify continuous communication connectivity and strategic connectivity threats, and performed analysis. Extend analysis to cover Very Low Frequency (VLF) shore connectivity paths and Military, Strategic and Tactical Relay (MILSTAR) monitoring. **FY06:** Continue SCAP, conduct CEP and strategic connectivity threats, and perform analysis. Extended analysis covers Very Low Frequency (VLF) shore conectivity paths and MILSTAR monitoring. Additional monitoring and analysis is required for the NOVA/Hybrid EAM delivery system to establish a baseline and verify performance parameters. **FY07:** Continuation of FY06 efforts. Prerequisite for developing requirements set for NC3 Long Term Solution.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February-06**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N TITLE: FLEET COMMUNICATIONS	1083 Shore to Ship Communications

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07	
Concept Development/Systems Planning	0.901	0.912	0.891	
RDT&E Articles Quantity				

FY05 Accomplishments: Continued development of dynamic allocation capability of the Fixed Submarine Broadcast Support (FSBS) bandwidth. Began development of coding and compression necessary to significantly increase the equivalent data throughput. Began the development of a submarine communications architecture that provides a foundation of Joint and allied Network Enabled Operations (NEO). **FY06:** Investigate codes and modulation schemes necessary to conduct throughput and coverage analysis, performance testing and evaluation. Complete the Joint/Allied NEO architecture design. **FY07:** Conduct testing, data collection and analysis necessary to optimize bandwidth use. Utilize the data to develop employment CONOPS to maximize operational benefit. Demonstrate Joint/Allied NEO in an an operational environment.

	FY 05	FY 06	FY 07	
Submarine Operating Authority (SUBOPAUTH)	2.918	0.000	0.000	
RDT&E Articles Quantity				

FY05 Accomplishments: Developed the automated toolsets to facilitate ease in manning burden to support operational and broadcast control for submarines.

	FY 05	FY 06	FY 07	
Nuclear Command, Control Communications Long Term Solution (NC3 LTS)	4.246	4.214	1.508	
RDT&E Articles Quantity				

FY05 Accomplishments: Implemented life extension actions identified in the end-to-end assessment. Developed computer modeling and simulations. Initiated the acquisition program process and continued the NC3 LTS Analysis of Alternatives. Initiated the development of the prototype. **FY06:** Continue life extension actions identified in the end-to-end assessment and continue development of prototypes and demonstration of availability. **FY07:** Complete development of prototypes and demonstration. Commence development of NC3 LTS Increment 1 .

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February-06**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N TITLE: FLEET COMMUNICATIONS	1083 Shore to Ship Communications

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07	
Low Band Universal Communication System (LBUCS)	2.300	4.190	3.639	
RDT&E Articles Quantity				

FY05 Accomplishments: Conducted requirements definition of transmit and receive systems. Ensured the transmit and receive system designs are consistent with joint interoperability standards. Commenced work on transmit and receive software.
FY06: Continue development of transmit and receive software focusing on portability. Begin development of the transmit and receive equipment.
FY07: Complete development of transmit and receive equipment and software. Complete Milestone B.

	FY 05	FY 06	FY 07	
Submarine Enhanced Emergency Alert System (SEEAS)	0.000	1.181	0.000	
RDT&E Articles Quantity				

FY06: Design an emergency alert system and supporting elements replacing the AN/BST-1 (which reaches end of service life by 2010) for SSBNs in accordance with new operational requirements.

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **Feb-2006**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N TITLE: FLEET COMMUNICATIONS	1083 Shore to Ship Communications

(U) D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
3107 Submarine Broadcast Support	17.680	2.132	0.666	18.750	18.981	19.380	19.813

(U) E. ACQUISITION STRATEGY: *

The Common Submarine Radio Room (CSRR) will integrate Chief of Naval Operations (CNO) N71 communication programs into the submarine radio rooms. The program has been designated an ACAT II due to the radio room system level Operational Test requirement and the amount of funding required to execute the program. Each class variant (SSBN, SSGN, SSN) will require design integration and operational testing. The CSRR program is proceeding to a Milestone C decision. The procurement of equipment will be accomplished by the established program offices; the integration of the equipment into the submarine environment will be conducted by the NAVSEA Undersea Warfare Center; and the installation will be accomplished by SPAWAR System Center, Charleston.

Low Band Universal Communication System (LBUCS) will maximize the use of Commercial Off The Shelf (COTS) and Non-Developmental Items (NDI) hardware and software. Procurement contract award will be based on full and open competition.

The Nuclear Command, Control and Communications Long Term Solution (NC3 LTS) will develop an approach to use COTS and NDI components to extend operational life of the existing system and to establish a long term solution compatible with future Global Information Grid structures. The program plans Milestone (MS)-A in 2nd QTR FY07.

Submarine Operating Authority (SUBOPAUTH) is a phased Abbreviated Acquisition Program (AAP) using COTS and NDI.

Submarine Enhanced Emergency Alert System (SEEAS) is a project levying off technology developed from other programs and maximizes the use of COTS and NDI.

(U) F. Major Performers:

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)

DATE: **Feb 2006**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-7**

PROGRAM ELEMENT: PE: 0204163N TITLE: FLEET COMMUNICATIONS

PROJECT NUMBER AND NAME: 1083 Shore to Ship Communications

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	6.243	2.498	11/04	1.517	11/05	1.089	11/06	Continuing	Continuing	0.000
Ancillary Hardware Development	Various	Various	0.000	0.272	11/04	0.331	11/05	0.288	11/06	Continuing	Continuing	0.000
Systems Engineering	CPFF	APL/JHU, Baltimore, MD	21.596	0.989	12/04	0.983	12/05	0.997	12/06	Continuing	Continuing	0.000
Systems Engineering	WR	SSC San Diego, CA	34.178	3.098	11/04	2.059	11/05	1.857	11/06	Continuing	Continuing	0.000
Systems Engineering	WR	Misc. Labs, NUWC, RI	9.176	0.824	11/04	0.973	11/05	0.800	11/06	Continuing	Continuing	0.000
Systems Engineering	WR	US Army, Monmouth, NJ	4.460	0.247	12/04	0.875	11/05	0.525	11/06	Continuing	Continuing	0.000
Systems Engineering	Various	Various	16.154	0.000	N/A						16.154	0.000
Subtotal Product Development			91.807	7.928		6.738		5.556		Continuing	Continuing	0.000

Remarks:

Development Support											0.000	0.000
Software Development	WR	SSC San Diego, CA	6.713	2.351	11/04	3.692	11/05	1.695	11/06	Continuing	Continuing	0.000
Training Development											0.000	0.000
Integrated Logistics Support											0.000	0.000
Acquisition/Program Development			0.000	0.215	11/04	0.545	11/05	0.215	11/06	Continuing	Continuing	0.000
Technical Data			2.600	0.222	11/04	0.247	11/05	0.261	11/06	Continuing	Continuing	0.000
GFE											0.000	0.000
Subtotal Support			9.313	2.788		4.484		2.171		Continuing	Continuing	0.000

Remarks:

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)

DATE: **Feb 2006**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N / BA-7**

PROGRAM ELEMENT: PE: 0204163N TITLE: FLEET COMMUNICATIONS

PROJECT NUMBER AND NAME: 1083 Shore to Ship Communications

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	0.000
Operational Test & Evaluation											0.000	0.000
Strategic OP Systems Perf Evaluatio	CPFF	APL/JHU, Baltimore, MD	8.600	3.435	12/04	3.487	12/05	2.346	12/06	Continuing	Continuing	0.000
Systems Testing	Various	Various	4.191	1.117	11/04	0.758	11/05	0.993	12/06	Continuing	Continuing	0.000
Tooling											0.000	0.000
GFE											0.000	0.000
Subtotal T&E			12.791	4.552		4.245		3.339		Continuing	Continuing	0.000
Remarks:												
Contractor Engineering Support	WR	US Army, Monmouth, NJ	0.492	0.452	11/04	0.250	12/05	0.125	12/06	Continuing	Continuing	0.000
Government Engineering Support	WR	Various	0.135	0.325	11/04	0.385	12/05	0.375	12/06	Continuing	Continuing	0.000
Program Management Support	Various	Various	4.192	0.190	11/04	0.210	12/05	0.215	12/06	Continuing	Continuing	0.000
Travel						0.050		0.050		Continuing	Continuing	0.000
Subtotal Management			4.819	0.967		0.895		0.765		Continuing	Continuing	0.000
Remarks:												
Total Cost			118.730	16.235		16.362		11.831		Continuing	Continuing	0.000
Remarks:												

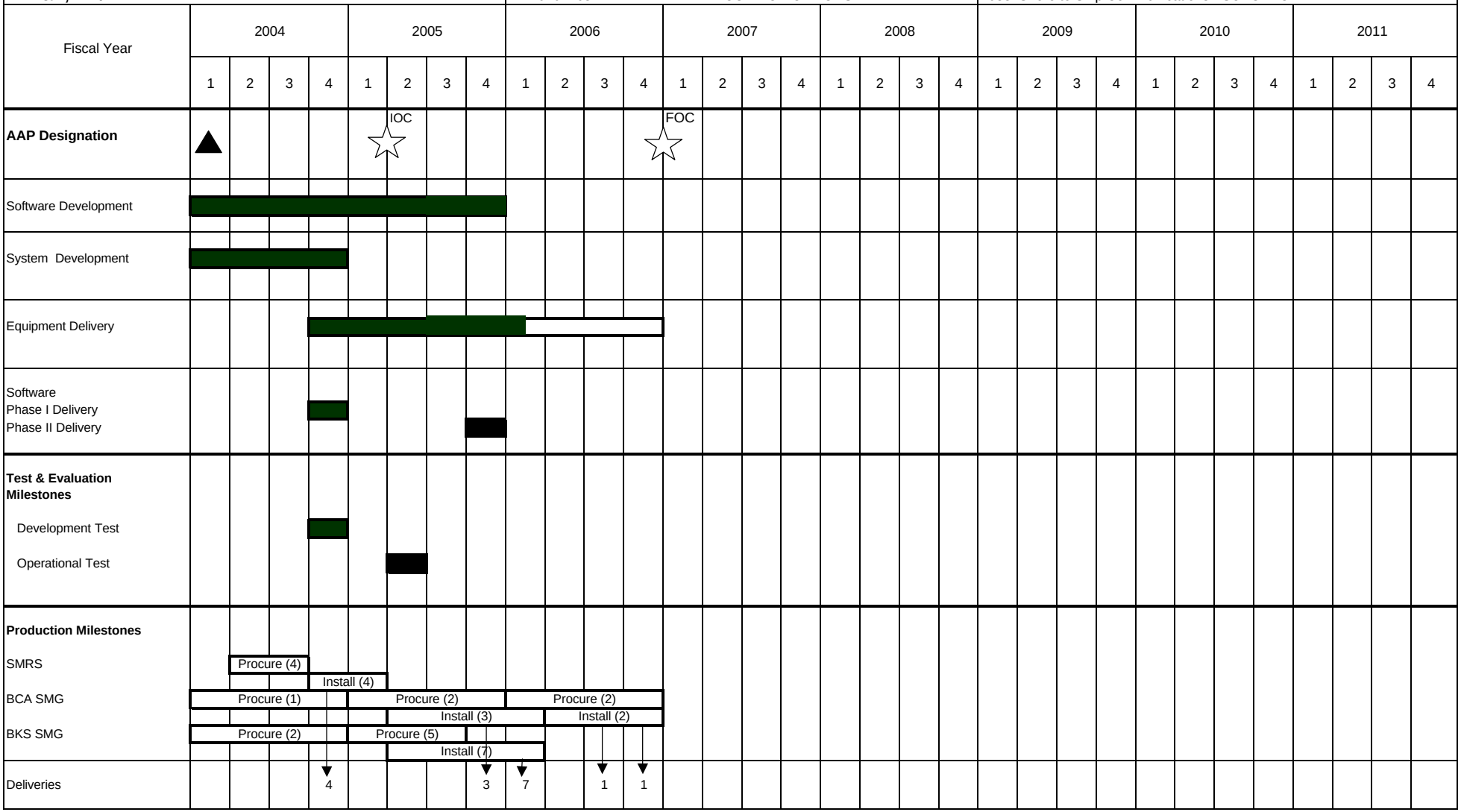
R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

EXHIBIT R4, Schedule Profile — DATE: **February-06**

Submarine Operation Authority - SUBOPAUTH

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N TITLE: FLEET COMMUNICATIONS	1083 Shore to Ship Communications - SUBOPAUTH



R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **Feb 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-7**	PROGRAM ELEMENT PE: 0204163N TITLE: FLEET COMMUNICATIONS				PROJECT NUMBER AND NAME 1083 Shore to Ship Communications - SUBOPAUTH			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Abbreviated Acquisition Program (AAP) Designation	1Q							
Software Development	1Q-4Q	1Q-4Q						
System Development	1Q-4Q							
Equipment Delivery	4Q	1Q-4Q	1Q-4Q					
Phase I Software Delivery	4Q							
Phase 2 Software Delivery		4Q						
Development Test	4Q							
Operational Test		2Q						
IOC		2Q						
FOC			4Q					

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

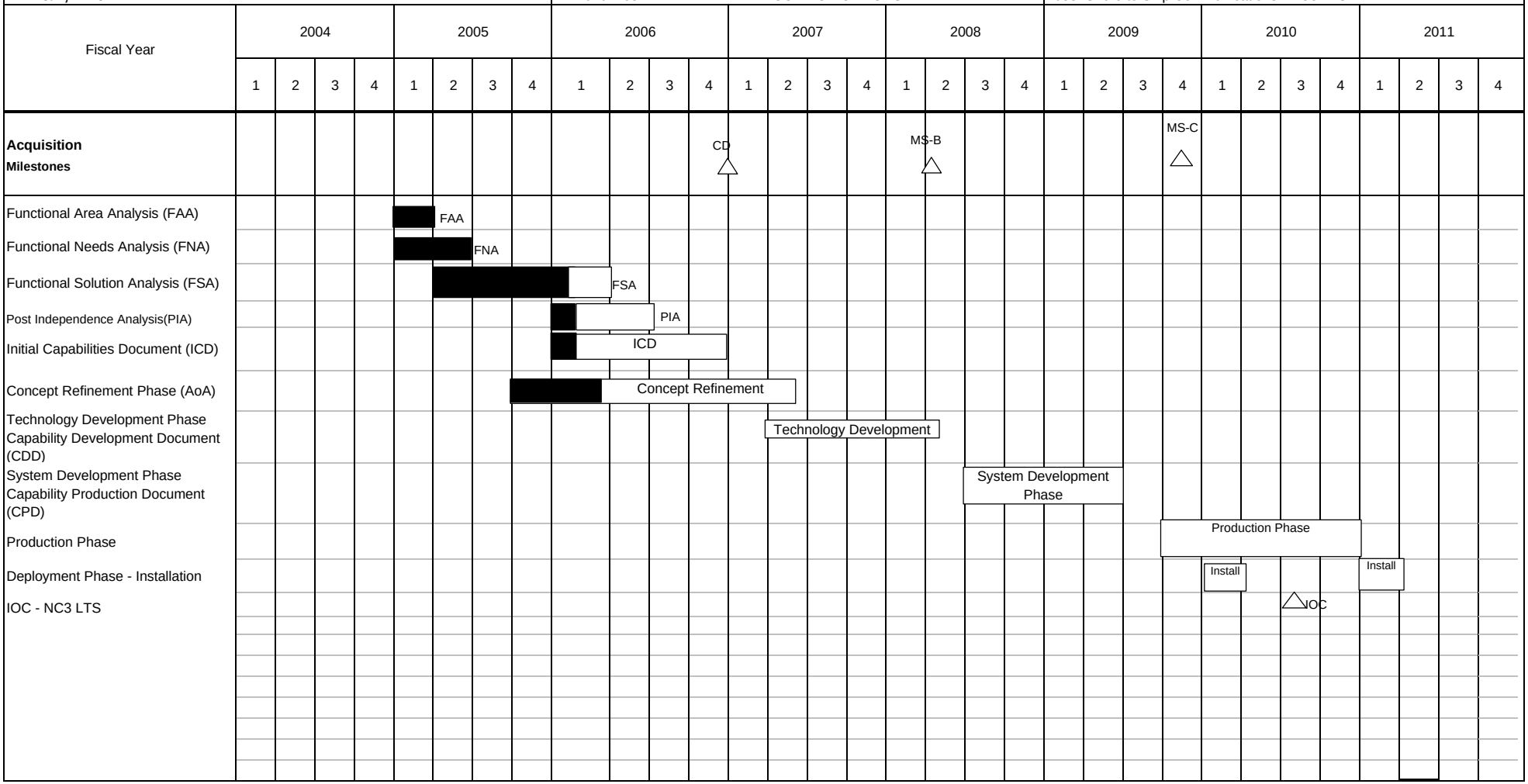
Nuclear Command, Control, Communications Systems - Long Term Solution

DATE: **Feb 2006**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, N /** **BA-7**

PROGRAM ELEMENT NUMBER AND NAME: PE: 0204163N TITLE: FLEET COMMUNICATIONS

PROJECT NUMBER AND NAME: 1083 Shore to Ship Communications - NC3 LTS



R-1 SHOPPING LIST - Item No. 172

Terminology taken from DoDI 5000.2, dtd 12 May 2003.

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **Feb 2006**		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N BA-7**	PROGRAM ELEMENT PE: 0204163N TITLE: FLEET COMMUNICATIONS				PROJECT NUMBER AND NAME 1083 Shore to Ship Communications - NC3 LTS			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Functional Area Analysis (FAA)		1Q						
Functional Needs Analysis (FNA)		1Q-2Q						
Functional Solution Analysis (FSA)		2Q-4Q	1Q					
Pos Independence Analysis (PIA)			1Q-2Q					
Initial Capabilities Document (ICD)			1Q-4Q					
Concept Refinement Phase (AoA)		4Q	1Q-2Q					
Concept Decision (CD)				1Q				
Technology Development Phase (CDD)				2Q-4Q	1Q			
Milestone B (MS-B)					2Q			
System Development Phase (CPD)					3Q-4Q	1Q-2Q		
Milestone C (MS-C)						4Q		
Production & Deployment Phase						4Q	1Q-4Q	
Installation							1Q	1Q
IOC							3Q	

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

Submarine Enhanced Emergency Alert System - SEEAS

DATE: **February-06**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N TITLE: FLEET COMMUNICATIONS	1083 Shore to Ship Communications - SEEAS

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					PROJECT DESIGNATION ▲									△ IOC																			
Contract Award						▲																										
Prototype Phase																																
System Development (e.g., Radar System dev.)																																
Software-Test Set Ensemble										△	—	△																				
Test & Evaluation Milestones																																
Development Test									△	—	—	△																				
Operational Test																																
Production Milestones																																
LRIP I																																
LRIPII																																
FRP (AN/BST-1 Buoy Unit)								△	—	—	—	—	△																			
Equipment Deliveries														△	—	—	—	—	△													

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **Feb-06**		
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-7**	PROGRAM ELEMENT PE: 0204163N TITLE: FLEET COMMUNICATIONS				PROJECT NUMBER AND NAME 1083 Shore to Ship Communications - SEEAS			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Designation		1Q						
Contract Award		2Q						
Software Delivery (Test Set Ensemble)			2Q-4Q					
Operational Testing			1Q-4Q					
IOC				2Q				
Full Rate Production (FRP) Decision		4Q						
Full Rate Production Start		4Q						
First Deployment				2Q				

R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

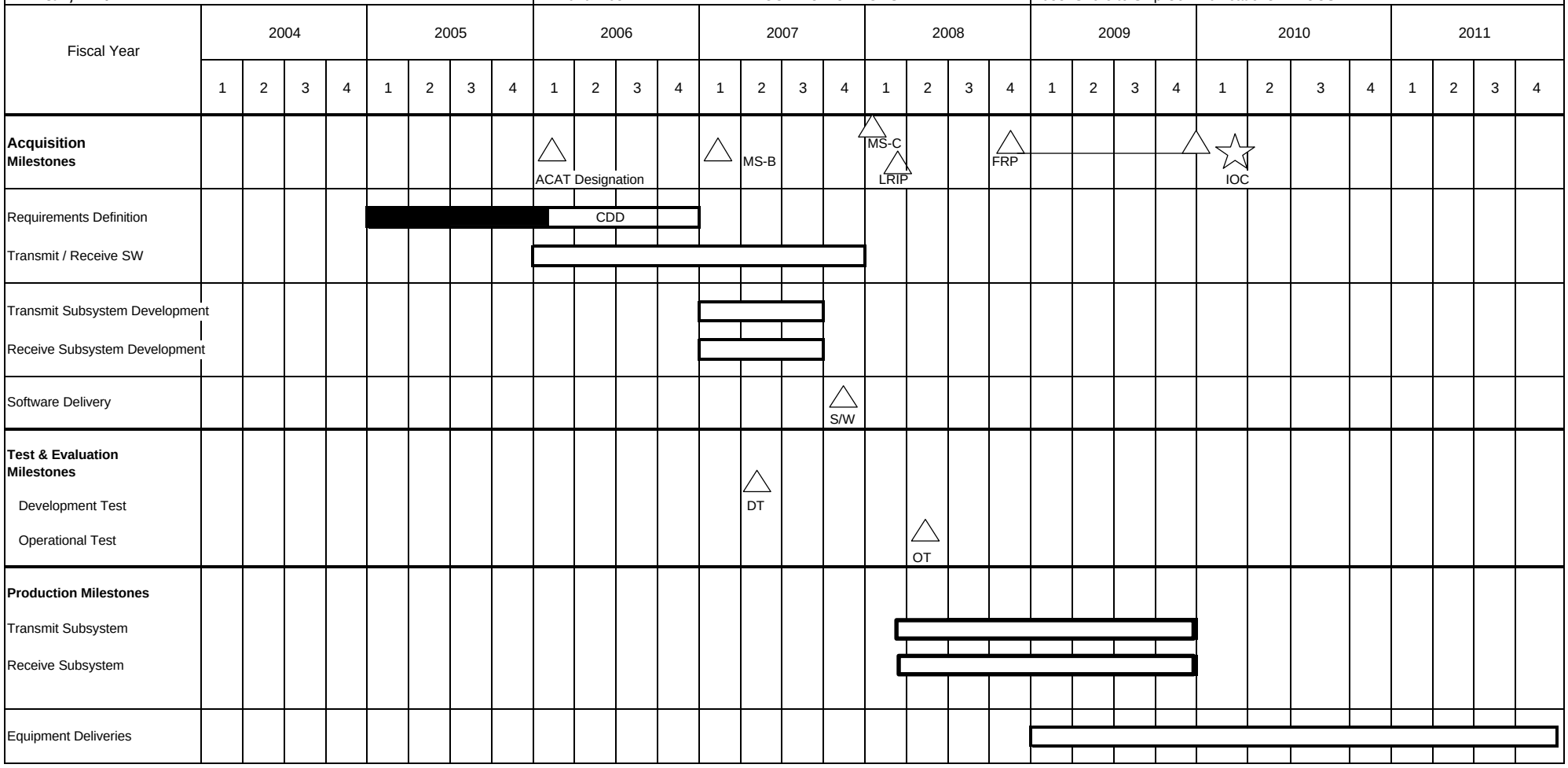
EXHIBIT R4, Schedule Profile
Low Band Universal Communication System

DATE: **February-06**

APPROPRIATION/BUDGET ACTIVITY
RDT&E, N / BA-7

PROGRAM ELEMENT NUMBER AND NAME
PE: 0204163N TITLE: FLEET COMMUNICATIONS

PROJECT NUMBER AND NAME
1083 Shore to Ship Communications - LBUCS



R-1 SHOPPING LIST - Item No. 172

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **February-06**		
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-7**	PROGRAM ELEMENT PE: 0204163N TITLE: FLEET COMMUNICATIONS				PROJECT NUMBER AND NAME 1083 Shore to Ship Communications - LBUCS			
Schedule Profile - Low Band Universal Comm System	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Acquisition Category Designation			1Q					
Requirements Definition		1Q-4Q	1Q-4Q					
Transmit/Receive Software Development			1Q-4Q	1Q-4Q				
Milestone B				1Q				
Transmit/Receive Subsystem Development				1Q-3Q				
Software Delivery				4Q				
Development Test				2Q				
Operational Test					2Q			
Milestone C					1Q			
LRIP					1Q			
Full Rate Production					4Q	1Q-4Q		
Transmit/Receive Subsystem Production					1Q-4Q	1Q-4Q		
Equipment Deliveries						1Q-4Q	1Q-4Q	1Q-4Q
IOC							1Q	

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: **Feb 2006**	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-2**	PROGRAM ELEMENT NUMBER AND NAME PE: 0204163N TITLE: FLEET COMMUNICATIONS				PROJECT NUMBER AND NAME 9999/Congressional Increases			
COST ($ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**0.000**	**3.277**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty	**Not Applicable**							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Congressional plus-up to support NAVSEA Carderock and Mobilisa, Inc. to develop a Floating Area Network (FAN) enabling a direct Line of Sight (LOS), wireless, TCP/IP network among intra-battle group ships.

Congressional plus-up to support development of a portable Cole emergency radio system (MRC-105 Emergency Radio).

Congressional plus-up funds will develop a design upgrade to the Programmable Integrated Communications Terminals (PICT) originally fielded in 1997. The PICT is currently on 30 Naval Platforms and acts as an integration terminal for combining internal and external shipboard communications systems. The proposed design upgrade is needed to improve PICT operational versatility and capability, potentially reduce man-hour requirements and further empower the warfighter's ability to select communications that fit the situation.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **Feb 2006**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-2	PE: 0204163N TITLE: FLEET COMMUNICATIONS	9999/Congressional Increases

B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07	
Floating Area Network (9620)	0.964			
RDT&E Articles Quantity				

Accomplishments: N/A

Planned: Develop a Floating Area Network (FAN) enabling a direct Line of Sight (LOS), wireless, TCP/IP network among intra-battle group ships.

	FY 05	FY 06	FY 07	
MRC Emergency Radio (MRC) (9619)	0.964			
RDT&E Articles Quantity				

Accomplishments: N/A

Planned: Develop a Floating Area Network (FAN) enabling a direct Line of Sight (LOS), wireless, TCP/IP network among intra-battle group ships.

	FY 05	FY 06	FY 07	
Programmable Integrated Comm Terminals (PICTs	1.349			
RDT&E Articles Quantity (9618)				

Accomplishments: N/A

Planned: Funds will specifically be used to: 1) Ensure the proposed design upgrade (Model 7500 PICT) meets improved operational capabilities, stability and supportability requirements and performs as designed. 2) Perform qualification testing to ensure the reliability of the proposed design upgrade in the ML-S-901D shock environment for CVN ship classes. 3) Perform TEMPEST testing to validate the security compliance of the integrated RED/BLACK processing circuits in the PICT to ensure Information Assurance Certification and overall DOD information Technology Security Certification and Accreditation Process (DITSCAP) approval.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **Feb 2006**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-2	PE: 0204163N TITLE: FLEET COMMUNICATIONS	9999/Congressional Increases

D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2008	FY 2009	FY 2010	To Complete	Total Cost

E. ACQUISITION STRATEGY: *

Utilize Congressional Add in FY's 2005 to develop Navy system specification and develop prototype to Navy operational and technical requirements.

F. MAJOR PERFORMERS: **

NSWC Carderock - Project and technical management for USN
Mobilisa Inc. - system prime contractor

*** Not required for Budget Activities 1,2,3, and 6**
**** Required for DON and OSD submit only.**

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