CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification | DATE: **February 2005**

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

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

COST ($ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	**22.177**	**22.874**	**32.694**	**26.674**	**23.329**	**17.450**	**17.728**	**18.051**
0725 Communications Automation	**3.046**	**2.033**	**16.045**	**13.048**	**12.272**	**6.725**	**6.810**	**6.880**
1083 Shore to Ship Communications	**11.607**	**17.482**	**16.649**	**13.626**	**11.057**	**10.725**	**10.918**	**11.171**
0795 Support of MEECN	**0.782**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
9421 Joint Integrated Systems Technology for Advanced Network Systems (JIST-NET)	**6.742**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
9620 Floating Area Network	**0.000**	**0.991**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
9619 MRC-105 EMERGENCY RADIO		**0.991**						
9618 Programmable Integrated Communications Terminals (PICT)		**1.377**						
Quantity of RDT&E Articles								

(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 Shore Infrastructure Modernization (SIM).

In FY 04 the Program of Record name changed to Tactical Messaging in order to better depict the latest technology capabilities under development. As in previous years, Tactical Messaging (formerly NAVMACS/SMSII) developed joint/combined individual and organizational message handling for US 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.

The Joint Network Management System (JNMS) is a CINC, Commander, Joint Forces (CJF) joint communications planning system with 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.

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), Base Level Information Infrastructure (BLII), 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 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.

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

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY **RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA-7**	R-1 ITEM NOMENCLATURE **PE: 0204163N TITLE: FLEET TELECOMMUNICATIONS**

Automated Digital Network System (ADNS) provides routing, switching, baseband, configuration and monitoring capabilities for interconnecting Naval, Coalition and Joint enclaves worldwide. ADNS utilizes COTS/GOTS equipment and network protocols as specified by the Joint Technical Architecture. ADNS Increment I provides initial limited, Ship to Shore 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, RF Restoral, Initial QoS, Initial Traffic Management, increase data throughput, and has been demonstrated as part of the FORCEnet IPD. ADNS Increment III will provide a converged Voice, Video, and Data Solution with additional capabilities such as IPv6 and VoIP. ADNS Increment IV will support Transformational Communications with additional capabilities of Black Core Routing and JTRS compatability.

The Tactical Switching Shore Infrastructure Modernization (SIM) program rebuilds 1970's 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. Shore Infrastructure Modernization 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, Shore Infrastructure Modernization 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. SIM 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 ballistic missile submarines (SSBNs), guided missile submarines (SSGNs) and attack 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) provides operational capability, through the Very Low Frequency architecture, to insure system life extension and greater flexibility of Submarine Broadcast traffic to the submarine in stealth posture. The increased flexibility includes greater 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 DoD and United States Congress. The project was moved to PEO C4I & Space, 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 MRC-105 Emergency Radio.

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY **RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA-7**	R-1 ITEM NOMENCLATURE **PE: 0204163N TITLE: FLEET TELECOMMUNICATIONS**

Project 9618: Programmable Integrated Communication Terminals (PICTs):

Provides a new design that offers additional benifits to enable the warfighters with the ability to change radio frequencies remotely via the Programmable Integrated Communication Terminals (PICTs) using the Digital Modular Radio (DMR)/Joint Tactical Radio System (JTRS).

Integration of the telephone and external communications systems is vital to the timely exchange of information among warfighters aboard ship and prevents unnecessary interoperability problems. The Navy is currently accomplishing the integration of the internal and external communication systems with the Programmable Integrated Communication Terminals (PICTs).

The PICT is the standard, integrated communications terminal used with the Integrated Voice Network (IVN) on amphibs, carriers and other critical weapons platforms. Its function is to provide the warfighter reliable access to all shipboard communications systems as well as secure and non-secure tactical communications channels.

In support of voice communications, the PICT is also filling the need for control of radio channels and encryption equipment. Ongoing PICT design development is enabling the Navy's migration to software-defined radios by providing human machine interface for the digital modular radio (DMR), designed to work with the Joint Tactical Radio System (JTRS). Operator positions will become multi-functional and give the operator the ability to adapt to various operational scenarios with access to multiple communications circuits through a single terminal. This capability is needed to enable Naval Forces to interoperate with other US Services.

The PICT upgrade would also allow environmental testing and information assurance testing to ensure the unit and system can meet certification requirements.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification | DATE: **February 2005**

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

COST ($ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**3.046**	**2.033**	**16.045**	**13.048**	**12.272**	**6.725**	**6.810**	**6.880**
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 IT-21 Local Area Network (LAN)/Wide Area Network (WAN). 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 COTS/GOTS equipment and network protocols as specified by the Joint Technical Architecture. ADNS Increment I provides initial limited, Ship to Shore 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, RF Restoral, Initial QoS, Initial Traffic Management, increase data throughput, and has been demonstrated as part of the FORCEnet Integrated Product Demonstration (IPD). ADNS Increment III will provide a converged Voice, Video, and Data Solution with additional capabilities such as Internet Protocol version 6 (IPv6) and Voice over Internet Protocol (VoIP). ADNS Increment IV will support Transformational Communications with additional capabilities of Black Core Routing and Joint Tactical Radio Systems (JTRS) compatability. Naval Global Directory Services is a key component of the infrastructure that will be leveraged to support a variety of network operations to include, but not limited to, Single Point of Administration (SPA) and Unified Account Management; Software Distribution; White/Yellow/Blue Pages; Menu, Profile, and Application Management; PKI-enablement of applications/devices; and Network Management. 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), Base Level Information Infrastructure (BLII), 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 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. Tactical Switching Ashore will support the migration of the shore sites and their terrestrial interconnections into a coherent, scalable, network capability.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA 7	PE: 0204163N FLEET TELECOMMUNICATIONS	0725 Communications Automation

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Automated Digital Network (ADNS)	0.357	0.419	6.432	4.372
RDT&E Articles Quantity				

FY04: Continued development of converged voice, video and data capability within ADNS. Continued analysis of VoIP alternatives. Demonstrated VoIP capability as part of FORCEnet and Trident Warrior series demonstrations. Developed advanced methods to implement prioritization of data using message traffic precedence, dynamic bandwidth management, and asymmetrical operations under Emission Control (EMCON) conditions. Analyzed and tested line of sight (LOS) and airborne networking. Devised solutions for Allied and coalition interoperability. Coordinated with JITC and OPTEVFOR for planning of interoperability testing and operational testing for ADNS Increment I.
FY05: Planning and conducting interoperability and operational testing for ADNS Increment I and Increment II. Develop advanced traffic management and control and Quality of Service (QoS) capabilities. Demonstrate dynamic routing scheme. Continue support of FORCEnet demonstrations (Trident Warrior series).
FY06: Complete Increment II Operational Testing. Award contract for system development and demonstration for Increment III. Increment III will provide converged voice, video, and data; increased bandwidth utilization; increased capability for traffic management; and Internet Protocol version 6 capability. 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.

	FY 04	FY 05	FY 06	FY 07
Tactical Messaging (NAVMACS)	1.240	1.186	1.149	1.522
RDT&E Articles Quantity				

FY04: FY04 Developed and tested Windows 2000 migration. Initiated development and testing of emerging technology and product upgrades such as DMS 3.1(Maintenance Release 2 (MR2)), DMS/ISNS co-host for bandwidth advantaged platforms,ISDS software for IP broadcast , Web based solutions, and COTS SW/HW refresh for all enclaves and USN platforms. Supported DICE '04 Joint Operational Testing.
FY05: Continue development and test efforts for emerging technology and product upgrades such as COTS SW/HW refresh for all enclaves and USN platforms. Conduct DMS 3.1 Operational Assessment. Continue development of DMS/ISNS co-host for bandwidth advantaged platforms. Support 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 bandwidth disadvantaged platforms to include AMHS. Conduct operational testing for the DMS/ISNS co-host messaging solution.
FY07: Continue development and test efforts for emerging technology and product upgrades. Conduct development test of AMHS/Proxy messaging solution. Initiate way-ahead messaging solution for CJTF and bandwidth advantaged platforms.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA 7	PE: 0204163N FLEET TELECOMMUNICATIONS	0725 Communications Automation

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Global Directory Services	1.115	0.428	0.414	0.394
RDT&E Articles Quantity				

FY04: Continued the development of the Naval Global Directory Service (NGDS) - enterprise wide, integrated directory service architecture. Assisted in convergence of NMCI, BLII, and IT-21 environments. Provided an infrastructure for the development and integration of new Navy Marine Corps portal functionality. Provided developmental engineering support for new network functionality within the shipboard environment including Unified Account Management (UAM) capability, Enterprise White Pages (EWP), and Naval Network Identity (NNI).
FY05: Continue the development of the Naval Global Directory Service (NGDS) - enterprise wide, integrated directory service architecture. Assist in the continuing convergence of NMCI, BLII, and IT-21 environments. Provide developmental engineering support for ship-to-shore communications and data sharing. 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, BLII, and IT-21 environments. Continue with developmental engineering support for ship-to-shore communications and data sharing.
FY07: Continue the development of the Naval Global Directory Service (NGDS) - enterprise wide, integrated directory service architecture. Assist in the continuing convergence of NMCI, BLII, and IT-21 environments.

	FY 04	FY 05	FY 06	FY 07
Joint Network Management System (JNMS)	0.334	0.000	0.000	0.000
RDT&E Articles Quantity				

FY04: Supported development and operational testing of JNMS. Tested systems at JFCOM. Completed Navy-specific conops. Continued testing interface with Navy-specific network management tools.

	FY 04	FY 05	FY 06	FY 07
Tactical Switching (Ashore)	0.000	0.000	8.050	6.760
RDT&E Articles Quantity				

FY06: Initiate the development of Phase 2A. Task a system integrator to develop a modern shore communications architecture to include consolidating communications technical control facilities, migrating all IP services to DoD Teleport and Global Information Grid-Bandwidth Expansion (GIG-BE), providing a direct connection between the shore based/fixed site messaging system and Fleet SIPRNET Messaging (FSM) , and substantially increasing messaging throughput, providing a plan to implement Enterprise Management and Control, and implementing a common timing and frequency synchronization standard (eliminating the multitude of legacy timing schemes) for all Navy shore communication stations. Efforts will take design process through Preliminary Design Review for Phase 2A.
FY07: Complete design of the Phase 2A Tactical Switching Ashore architecture and initiate and complete the development of the Phase 2B Tactical Switching Ashore architecture and implementation plan to include the Enterprise Management and Control system. Critical Design Review for Phase 2A and Preliminary Design Review and Critical Design Review for Phase 2B. Begin system-of-systems testing.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N BA 7	PE: 0204163N FLEET TELECOMMUNICATIONS	0725 Communications Automation

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY2006 President's Budget	3.195	2.080	2.112	2.690
FY2005 President's Budget	3.046	2.033	16.045	13.048
Total Adjustments	(0.149)	(0.047)	13.933	10.358
Summary of Adjustments				
Congressional Adjustments				
Congressional Recissions		-0.047		
Reprogrammings	-0.113			
Programmatic Adjustments			13.802	10.209
Economic Assumptions			0.129	0.141
Pricing Adjustments			0.002	0.008
SBIR/STTR Transfers	-0.036			
Subtotal	-0.149	-0.047	13.933	10.358

(U) Schedule:

Not Applicable

(U) Technical:

Not Applicable

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	0725 Communications Automation

(U) D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
3050 – Comm Auto - NAVMACS	7.275	10.454	11.759	9.710	10.438	11.466	11.371	3.967	Continuing	Continuing
3050 – Comm Auto – JNMS	5.753	1.387	1.676	0.950						
3050 – Comm Auto – ADNS	18.884	42.218	24.231	21.055	48.625	39.668	30.289	41.161	Continuing	Continuing
3050 – Comm Auto – Tactical Switching (Ashore)			39.143	39.834	34.039	33.654	26.407	23.511	Continuing	Continuing

(U) E. ACQUISITION STRATEGY: *

ADNS: Evolutionary acquisition approach with overlapping development and implementation phases for differing incremental baselines. Use existing competitively awarded contracts during the initial production phase with plans to introduce 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. Employ many types of advantageous contract vehicles which provide flexibility, decreased contract administrative costs, and encourage acquisition streamlining through the use of COTS products.

Tactical Messaging (formaly 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 acquisiton streamlinging initiatives in addition to maintaining the benefits of competitive, best value contracting.

-JNMS provides an automated software system including capabilities for planning and engineering , monitoring, control and reconfigurations, spectrum management and security .
-NGDS supports a variety of network operations that include Single Point of Administration (SPA) and Unified Account Management; Software Distribution; White/Yellow/Blue Pages; Menu, Profile and Application Management; PKI-enablement of applications/devices, and Network Management. All management oversight by SPAWAR.

-Tactical Switching Ashore Evolutionary acquisition approach with overlapping development and implementation phases. Use existing contract vehicles during Phase One implementation of procurement upgrades to exisiting 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 shore infrastructure to the 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**

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	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								2.825	0.000
Primary Hardware Development	TBD	TBD		0.000		1.000	TBD	1.000	TBD	Continuing	Continuing	0.000
Systems Engineering	PO	SSC	9.176	0.240	Dec-04	0.246	TBD	0.405	TBD	Continuing	Continuing	0.000
Systems Engineering	CPAF	VAR	0.468			5.550	Jun-06	5.707	Jun-07	Continuing	Continuing	0.000
Systems Engineering	TBD	TBD		0.000		2.502	TBD	0.955	TBD	Continuing	Continuing	0.000
Prime Mission Product	PO	SSC	3.548	0.438	Dec-04	0.387	TBD	0.662	TBD	Continuing	Continuing	0.000
Subtotal Product Development			16.017	0.678		9.685		8.729		0.000	35.109	0.000

Remarks:

Development Support	WX	SSC				0.160	TBD	0.160	TBD		0.320	0.000
Software Development	Var	Various	4.215	0.394	Dec-04	0.917	TBD	0.866	TBD	Continuing	Continuing	0.000
Integrated Logistics Support	TBD	TBD				1.000	TBD	0.900	TBD		1.900	0.000
Documentation	TBD	TBD		0.280							0.280	0.000
Technical Data	TBD	TBD				0.500	TBD	0.500	TBD		1.000	0.000
Studies and Analysis	TBD	TBD				0.250	TBD	0.250	TBD		0.500	0.000
Subtotal Support			4.215	0.674		2.827	TBD	2.676	TBD	Continuing	Continuing	0.000

Remarks:

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)

DATE: **February 2005**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	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		0.063	TBD	0.090	TBD	0.015		Continuing	Continuing	0.000
Operational Test & Evaluation	VAR	VAR	3.882	0.117	Dec-04	0.135	TBD	0.017		Continuing	Continuing	0.000
Operational Test & Evaluation	MIPR	OPTEVFOR	0.315								0.315	0.000
Operational Test & Evaluation	VAR	VAR	0.350								0.350	0.000
Subtotal T&E			4.547	0.180		0.225		0.032		Continuing	Continuing	0.000
Remarks:												
Contractor Engineering Support	VAR	VAR	0.246	0.075	Dec-04	0.991	Jun-06	0.425	Jun-07	Continuing	Continuing	0.000
Government Engineering Support	WX	SSC		0.044	Dec-04	0.041	Dec-05	0.041	Dec-06			
Program Management Support	VAR	SSC	1.704	0.131	Dec-04	1.256	VAR	0.653	VAR	Continuing	Continuing	0.000
Program Management Support	VAR	VAR	1.263	0.251	Dec-04	1.020	Jun-06	0.492	Jun-07	Continuing	Continuing	0.000
Subtotal Management			3.213	0.501		3.308		1.611		Continuing	Continuing	0.000
Remarks:												
Total Cost			27.992	2.033		16.045		13.048		Continuing	Continuing	0.000
Remarks:												

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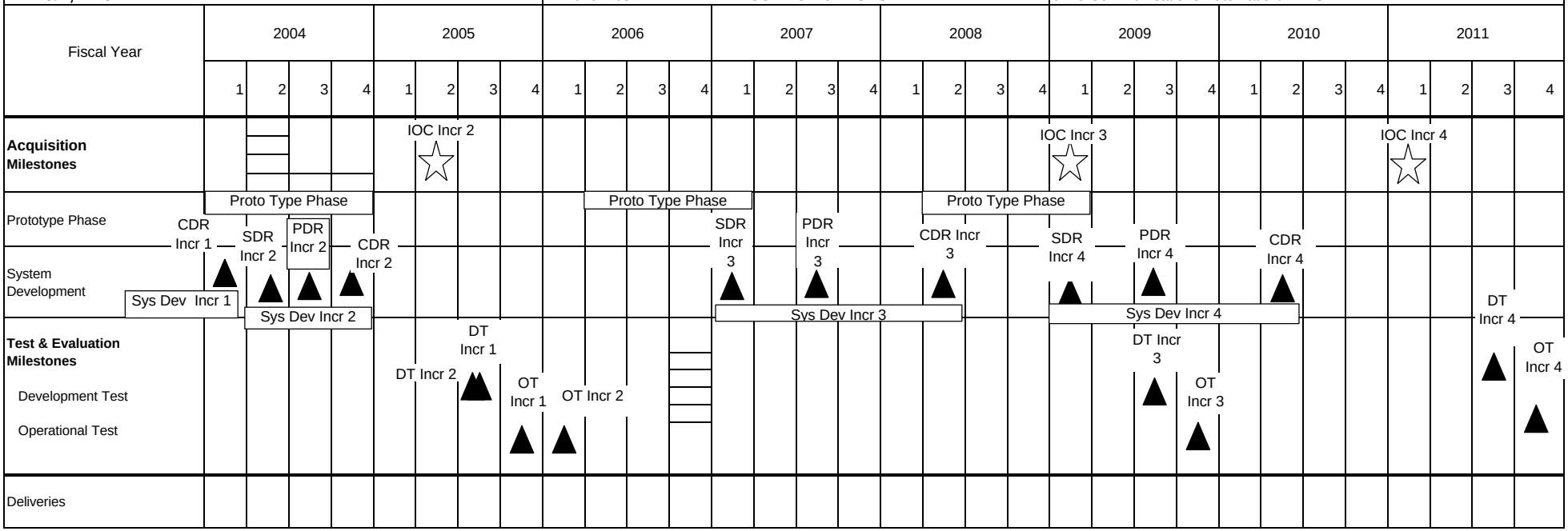
EXHIBIT R4, Schedule Profile

DATE: **February 2005**

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

PROGRAM ELEMENT NUMBER AND NAME: PE: 0204163N FLEET TELECOMMUNICATIONS

PROJECT NUMBER AND NAME: 0725 Communications Automation/ADNS



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* 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.

Exhibit R-4a, Schedule Detail					DATE: **February 2005**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT PE: 0204163N FLEET TELECOMMUNICATIONS				PROJECT NUMBER AND NAME 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 *R-4 #1*								
Prototype Phase								
System Design Review (SDR)								
Preliminary Design Review (PDR)								
System Development								
Critical Design Review (CDR)								
IOC								
Developmental Testing (DT)		3Q						
Operational Testing (OT)		4Q						
INCREMENT II								
Initial Traffic Management, Shore ***(TMS)*** *R-4 #2*								
Prototype Phase	1-4Q							
System Design Review (SDR)	2Q							
Preliminary Design Review (PDR)	3Q							
System Development	2-4Q							
Critical Design Review (CDR)	4Q							
IOC		2Q						
Developmental Testing (DT)		3Q						
Operational Testing (OT)			1Q					
Intitial QOS ***(IQOS)*** *R-4 #2*								
Prototype Phase	1-4Q							
System Design Review (SDR)	2Q							
Preliminary Design Review (PDR)	3Q							
System Development	2-4Q							
Critical Design Review (CDR)	4Q							
IOC		2Q						
Developmental Testing (DT)		3Q						
Operational Testing (OT)			1Q					
INCREMENT III								
Voice Over IP ***(VOIP)*** *R-4 #3*								
Prototype Phase			2Q-4Q	1Q				
System Design Review (SDR)				1Q				
Preliminary Design Review (PDR)				3Q				
System Development				1Q-4Q	1Q-2Q			
Critical Design Review (CDR)					2Q			
IOC						1Q		
Developmental Testing (DT)						3Q		
Operational Testing (OT)						4Q		

Exhibit R-4a, Schedule Detail					DATE: **February 2005**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT PE: 0204163N FLEET TELECOMMUNICATIONS				PROJECT NUMBER AND NAME 0725 Communications Automation/ADNS			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
*Advanced QOS **(AQOS)** R-4 #3*								
Prototype Phase			2Q-4Q	1Q				
System Design Review (SDR)				1Q				
Preliminary Design Review (PDR)				3Q				
System Development				1Q-4Q	1Q-2Q			
Critical Design Review (CDR)					2Q			
IOC						1Q		
Developmental Testing (DT)						3Q		
Operational Testing (OT)						4Q		
*Advanced Traffic Management **(ADVTM)** R-4 #2*								
Prototype Phase			2Q-4Q	1Q				
System Design Review (SDR)				1Q				
Preliminary Design Review (PDR)				3Q				
System Development				1Q-4Q	1Q-2Q			
Critical Design Review (CDR)					2Q			
IOC						1Q		
Developmental Testing (DT)						3Q		
Operational Testing (OT)						4Q		
*IPv6 **(IPv6)***								
Prototype Phase			2Q-4Q	1Q				
System Design Review (SDR)				1Q				
Preliminary Design Review (PDR)				3Q				
System Development				1Q-4Q	1Q-2Q			
Critical Design Review (CDR)					2Q			
IOC						1Q		
Developmental Testing (DT)						3Q		
Operational Testing (OT)						4Q		
INCREMENT IV								
*Black Routing **(BR)***								
Prototype Phase					2Q-4Q	1Q		
System Design Review (SDR)						1Q		
Preliminary Design Review (PDR)						3Q		
System Development						1Q-4Q	1Q-2Q	
Critical Design Review (CDR)							2Q	
IOC								1Q
Developmental Testing (DT)								3Q
Operational Testing (OT)								4Q
*JTRS Integration **(JTRSI)***								
Prototype Phase					2Q-4Q	1Q		
System Design Review (SDR)						1Q		
Preliminary Design Review (PDR)						3Q		
System Development						1Q-4Q	1Q-2Q	
Critical Design Review (CDR)							2Q	
IOC								1Q
Developmental Testing (DT)								3Q
Operational Testing (OT)								4Q
*Transformational Communications **(TC)***								
Prototype Phase					2Q-4Q	1Q		
System Design Review (SDR)						1Q		
Preliminary Design Review (PDR)						3Q		
System Development						3Q-4Q	1Q-2Q	
Critical Design Review (CDR)							2Q	
IOC								1Q
Developmental Testing (DT)								3Q
Operational Testing (OT)								4Q

CLASSIFICATION:

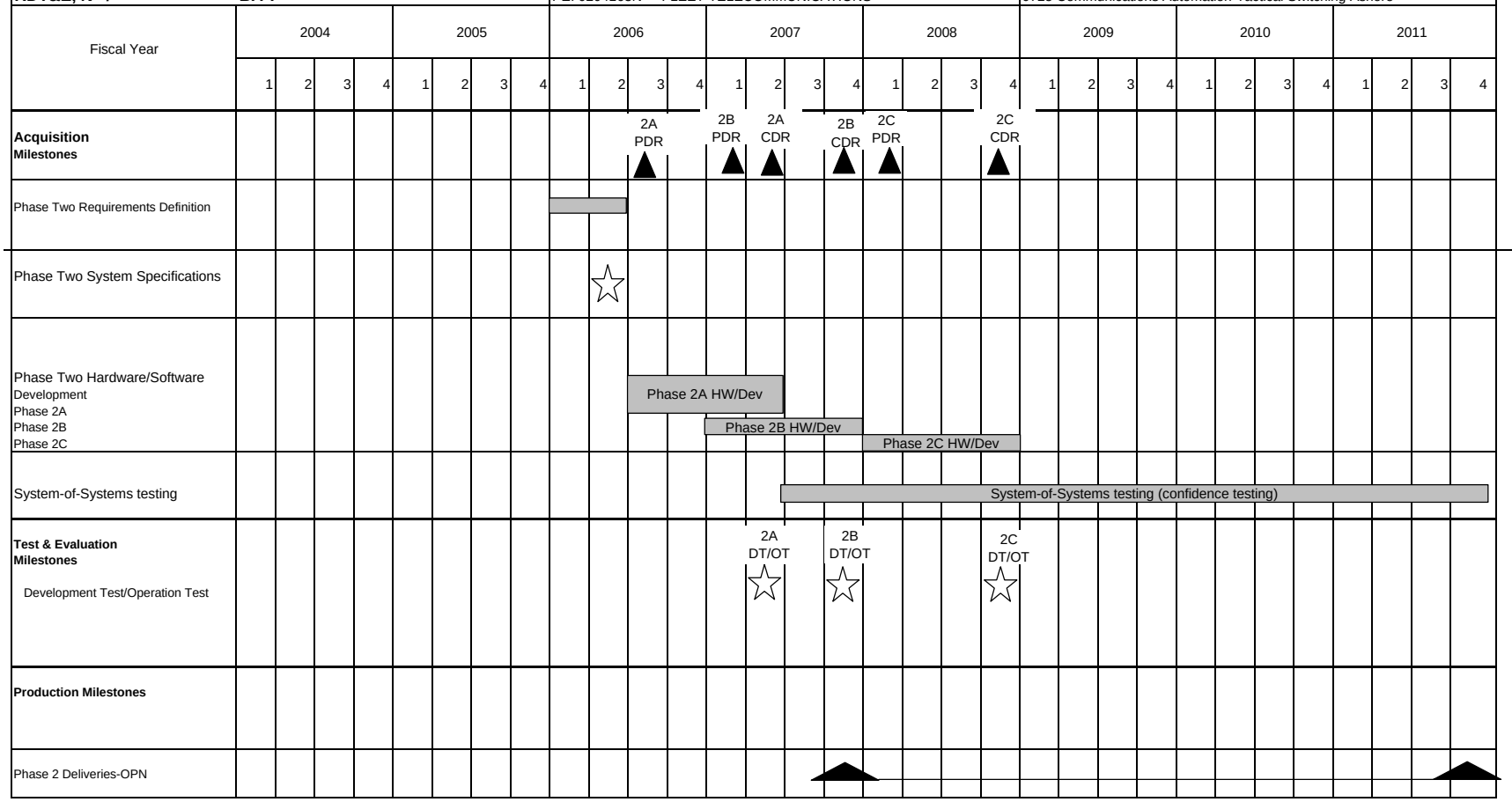
EXHIBIT R4, Schedule Profile

DATE: **February 2005**

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

PROGRAM ELEMENT NUMBER AND NAME: PE: 0204163N FLEET TELECOMMUNICATIONS

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



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CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **February 2005**			
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N BA-7**	PROGRAM ELEMENT PE: 0204163N FLEET TELECOMMUNICATIONS				PROJECT NUMBER AND NAME 0725 Communications Auto-Tactical Switching Ashore			
Schedule Profile - Tactical Switching Ashore	FY 2004	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				4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q

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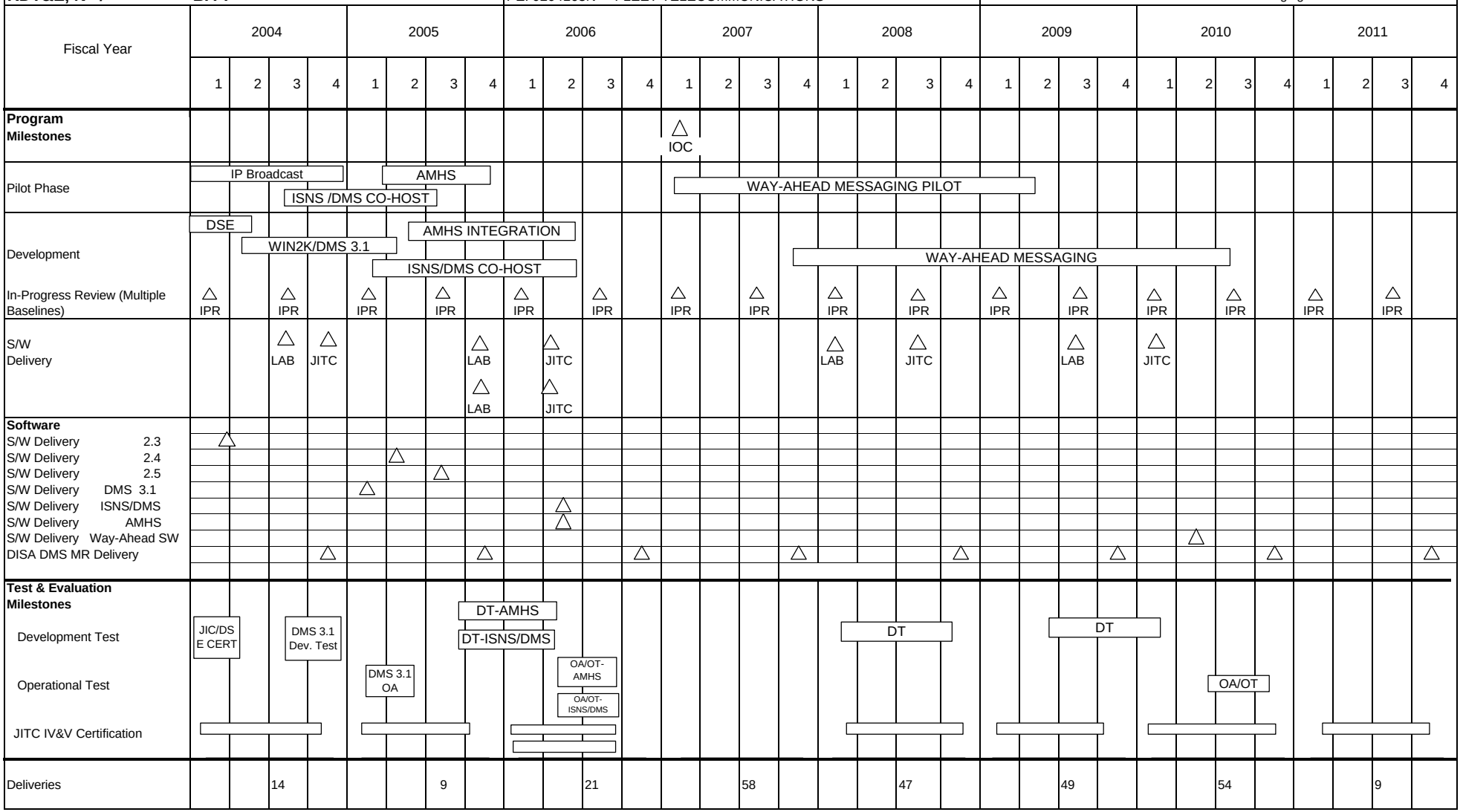
CLASSIFICATION:

EXHIBIT R4, Schedule Profile | DATE: **February 2005**

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

PROGRAM ELEMENT NUMBER AND NAME: PE: 0204163N FLEET TELECOMMUNICATIONS

PROJECT NUMBER AND NAME: 0725 Communications Automation/Tactical Messaging



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

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT PE: 0204163N FLEET TELECOMMUNICATIONS				PROJECT NUMBER AND NAME 0725 Communications Automation/Tactical Messaging			
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
IOC				1Q				
DSE	1Q-2Q							
Win2K/DMS Afloat 3.1	2Q-4Q	1Q-2Q						
IP Broadcast	1Q-4Q							
ISNS / DMS CO-HOST	3Q-4Q	1Q-4Q	1Q-2Q					
AMHS Integration		1Q-4Q	1Q-2Q					
Way-Ahead CJTF Messaging				1Q-4Q	1Q-4Q	1Q-4Q	1Q-3Q	
IPR	1Q,3Q	1Q,3Q	1Q,3Q	1Q,3Q	1Q,3Q	1Q,3Q	1Q,3Q	1Q,3Q
EMD - Lab	3Q	4Q			1Q	3Q		
EMD - JITC	4Q		2Q		3Q		1Q	
S/W Delivery 2.3	1Q-2Q							
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	4Q
Development Test	1Q-4Q	3Q-4Q	1Q-2Q		1Q-4Q	2Q-4Q	1Q	
Operational Assessment/Test		1Q-2Q	2Q-3Q				2Q-4Q	
JITC IV&V Certification	1Q-4Q	1Q-4Q	1Q-3Q		1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Deliveries	14	9	21	58	47	49	54	9

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: Feb-2005	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-7**	PROGRAM ELEMENT NUMBER AND NAME **PE: 0204163N FLEET TELECOMMUNICATIONS**				PROJECT NUMBER AND NAME 1083 Shore to Ship Communications			
COST ($ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**11.607**	**17.482**	**16.649**	**13.626**	**11.057**	**10.725**	**10.918**	**11.171**
RDT&E Articles Qty								

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

This project develops communication system elements that provide positive command and control of deployed ballistic missile submarines (SSBNs) and fleet submarine broadcast connectivity to SSNs, 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 BCA/OPCONs to ensure Continuity of Operations (COOP) in the event of a BCA outage. The Common Submarine Radio Room (CSRR) integrates COTS and 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 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) (formerly EAM 2010) 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 greater flexibility of Submarine Broadcast traffic to the submarine in stealth posture. The increased 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 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.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: Feb-2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	1083 Shore to Ship Communications

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
High Voltage Improvement Program	0.350	0.431	0.448	0.438
RDT&E Articles Quantity				

FY04: Completed testing of system to detect onset of corona breakdown which provided a heightened protection to present day carrier cutoff systems at FVLF sites. Completed development of electrically small antennas for VLF/LF transmit applications. Began investigation of methods for providing additional high voltage performance margin for helix house exit bushings and guy/top hat insulators. **FY05:** Complete development of remote corona monitoring/sensing system capability for FVLF sites. Complete investigation on helix house bushings and guy insulators. Begin 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 ultra quick cut off devices to prevent overload conditions. **FY07:** Complete examination of ultra quick cut off devices to prevent overload conditions.

	FY 04	FY 05	FY 06	FY 07
Common Submarine Radio Room (CSRR)	0.900	0.925	0.936	0.970
RDT&E Articles Quantity				

FY04: Continued engineering and integration of SSBN variant of CSRR.
FY05: Complete land-based testing of SSBN variant of CSRR. Conduct SEAWOLF OPEVAL.
FY06: Complete integration, system certification and operational assessment of SSBN variant of CSRR.
FY07: Complete OPEVAL of SSBN variant and initial a system upgrades.

	FY 04	FY 05	FY 06	FY 07
SCAP/CEP	3.882	4.527	4.481	4.557
RDT&E Articles Quantity				

FY04: Continued Strategic Communications Continuing Assessment Program (SCAP), provided COMNAVSUBFOR Force Management and Force Direction products. Conducted Continuing Evaluation Program (CEP) analyzed each TRIDENT patrol and analyzed special message tests to verify continuous communication connectivity. **FY05:** Continue SCAP, conduct CEP and strategic connectivity threats, and perform analysis. Extend analysis to cover VLF shore conectivity paths and MILSTAR monitoring. **FY06:** Continue SCAP, conduct CEP and strategic connectivity threats, and perform analysis. Extended analysis covers 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 verifiy performance parameters. **FY07:** Continuation of FY06 efforts. Prerequisite for developing requirements set for EAM NC3 Long Term Solution.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: Feb-2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	1083 Shore to Ship Communications

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Concept Development/Systems Planning	0.906	0.942	0.912	0.916
RDT&E Articles Quantity				

FY04: Completed design concept and initial feasible studies for integrated FVLF dynamic control system. Began development of methods to provide the operational flexibility of dynamic allocation of the Fixed Submarine Broadcast System (FSBS) bandwidth. **FY05:** Continue development of dynamic allocation capability of the FSBS bandwidth. Begin development of coding and compression necessary to significantly increase the equivalent data throughput. Begin the development of a submarine communications architecture that provides a foundation of Joint and allied Network Enabled Operations (NEO). **FY06:** Implement codes and modulation schemes into operational equipment necessary to conduct throughput and coverage performance testing and evaluation. Complete the Joint/Allied NEO architecture design. **FY07:** Conduct testing, data collection and analysis. Utilize the data to develop employment CONOPS to maximize bandwidth enhancement and dynamic bandwidth allocation optimization. Demonstrate Joint/Allied NEO in an operational environment.

	FY 04	FY 05	FY 06	FY 07
Submarine Operating Authority (SUBOPAUTH)	1.659	2.918	0.000	0.000
RDT&E Articles Quantity				

FY04: Developed the architecture to ensure automated SUBOPAUTH back-up strategy to support Continuity of Operations (COOP).
FY05: Develop automated toolsets to facilitate ease in manning burden to support operational and broadcast control for submarines.

	FY 04	FY 05	FY 06	FY 07
Nuclear Command, Control Communications Long Term Solution (NC3 LTS) (formerly EAM 2010)	3.910	4.763	4.339	3.055
RDT&E Articles Quantity				

FY04: Conducted an end-to-end assessment necessary to support the baseline of the current system and supported the Analysis of Alternatives and Initial Capabilities Document (ICD) for future capabilities. **FY05:** Implement life extension actions identified in the end-to-end assessment. Develop computer modeling and simulations. Initiate the acquisition program process and continue the NC3 LTS Analysis of Alternatives. Initiate 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 .

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **Feb-2005**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	1083 Shore to Ship Communications

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Low Band Universal Communication System (LBUCS) (formerly VLF Transmit Terminal & VLF Channel Modes)	0.000	2.976	4.352	3.690
RDT&E Articles Quantity				

FY05: Conduct requirements definition of transmit and receive systems. Ensure the transmit and receive system designs are consistent with joint interoperability standards. Commence work on transmit and receive software.
FY06: Continue development of transmit and receive software. Begin development of the transmit and receive equipment. Complete Milestone A.
FY07: Complete development of transmit and receive equipment and software. Complete Milestone B.

	FY 04	FY 05	FY 06	FY 07
Submarine Enhanced Emergency Alert System (SEEAS)	0.000	0.000	1.181	0.000
RDT&E Articles Quantity				

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

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000
RDT&E Articles Quantity				

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EXHIBIT R-2a, RDT&E Project Justification		DATE: Feb-2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	1083 Shore to Ship Communications

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY2005 President's Budget:	12.218	17.704	17.614	13.853
FY2006 President's Budget:	11.607	17.482	16.649	13.626
Total Adjustments	-0.611	-0.222	-0.965	-0.227
Summary of Adjustments				
Congressional Adjustments				
Congressional Recissions		-0.222		
Reprogrammings	-0.455			
Programmatic Adjustments			-1.011	-0.377
Economic Assumptions			0.067	0.073
Pricing Adjustments			-0.021	0.077
SBIR/STTR Transfers	-0.156			
Subtotal	-0.611	-0.222	-0.965	-0.227

(U) Schedule:

CSRR program Milestone C has slipped from 4th QTR FY04 to 3rd QTR FY05. Navy and DoD TEMP approval has delayed proceeding to CSRR Milestone C.

(U) Technical:

Not Applicable.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **Feb-2005**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	1083 Shore to Ship Communications

(U) D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
3107 Submarine Broadcast Support	14.499	17.693	2.162	0.671	18.696	18.931	19.331	19.749	Continuing	Continuing

(U) E. ACQUISITION STRATEGY: *

The Common Submarine Radio Room (CSRR) will integrate CNO N6 communication programs into the submarine radio rooms. The program has been designated an ACAT III 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 in 3rd Quarter FY05. 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) (formerly EAM 2010) 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 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 an AAP levying on technology developed on other programs and maximizes the use of COTS and NDI.

(U) F. Major Performers:

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)

DATE: **Feb 2005**

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

PROGRAM ELEMENT: PE: 0204163N FLEET TELECOMMUNICATIONS

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	3.059	11/04	1.517	11/05	1.089	11/06	Continuing	Continuing	0.000
Ancillary Hardware Development	Various	Various		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	2.259	11/05	1.688	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	8.489		6.938		5.387		0.000	112.621	0.000

Remarks:

Development Support											0.000	0.000
Software Development	WR	SSC San Diego, CA	6.713	2.737	11/04	3.768	11/05	2.545	11/06	Continuing	Continuing	0.000
Training Development											0.000	0.000
Integrated Logistics Support											0.000	0.000
Acquisition/Program Development				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	3.174		4.560		3.021		0.000	20.068	0.000

Remarks:

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)

DATE: **Feb 2005**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	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	3.735	12/04	3.498	12/05	3.460	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	4.852		4.256		4.453		0.000	26.352	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			0.100	0.000
Subtotal Management			4.819	0.967		0.895		0.765		0.000	7.446	0.000
Remarks:												
Total Cost			118.730	17.482		16.649		13.626		0.000	166.487	0.000
Remarks:												

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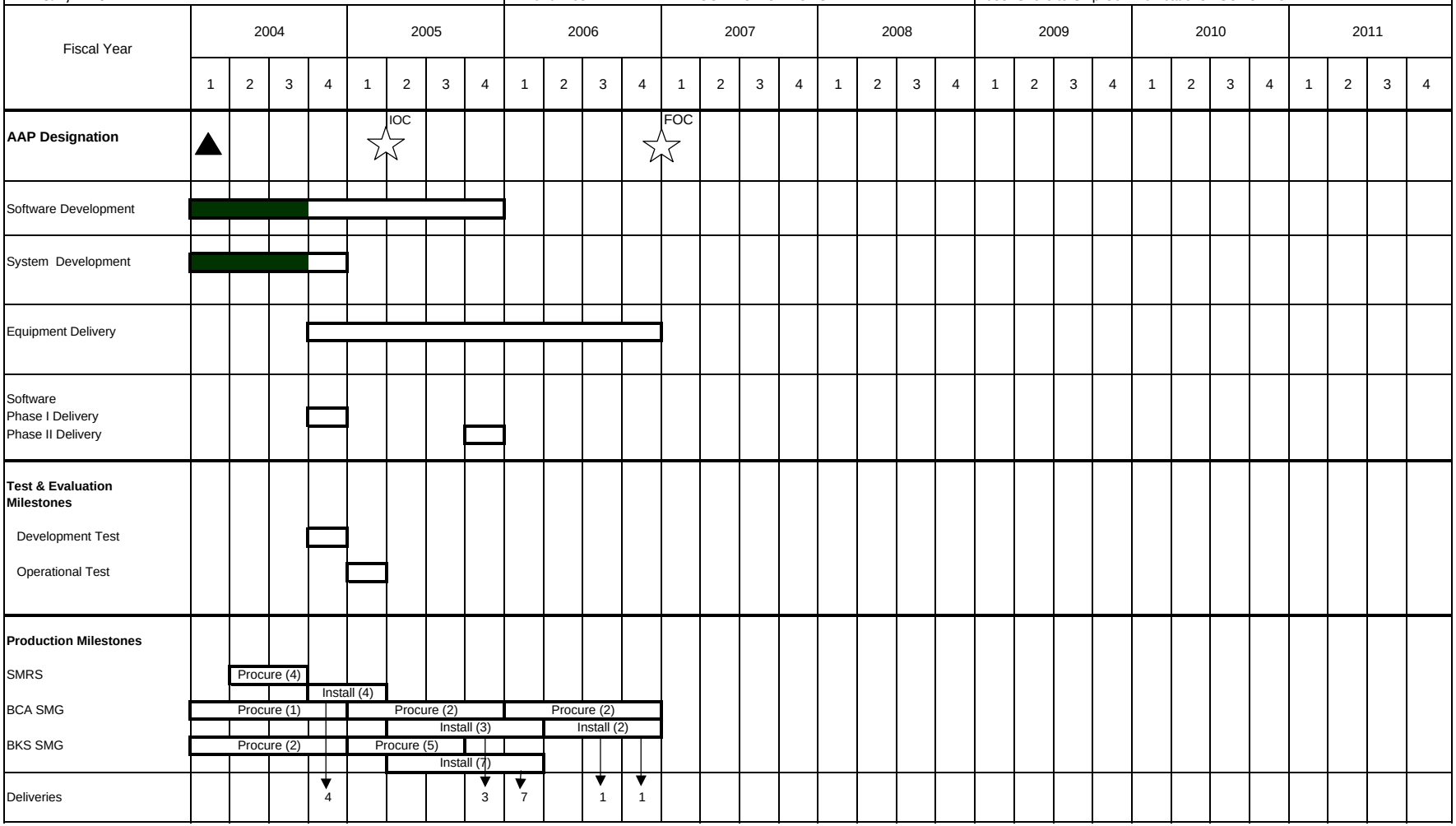
CLASSIFICATION:

EXHIBIT R4, Schedule Profile

Submarine Operation Authority - SUBOPAUTH

DATE: **Feb-05**

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



R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: **Feb 2005**			
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-7**	PROGRAM ELEMENT PE: 0204163N FLEET TELECOMMUNICATIONS				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		1Q						
IOC		2Q						
FOC			4Q					

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Example milestones above are provided as a sample only.

CLASSIFICATION:

EXHIBIT R4, Schedule Profile

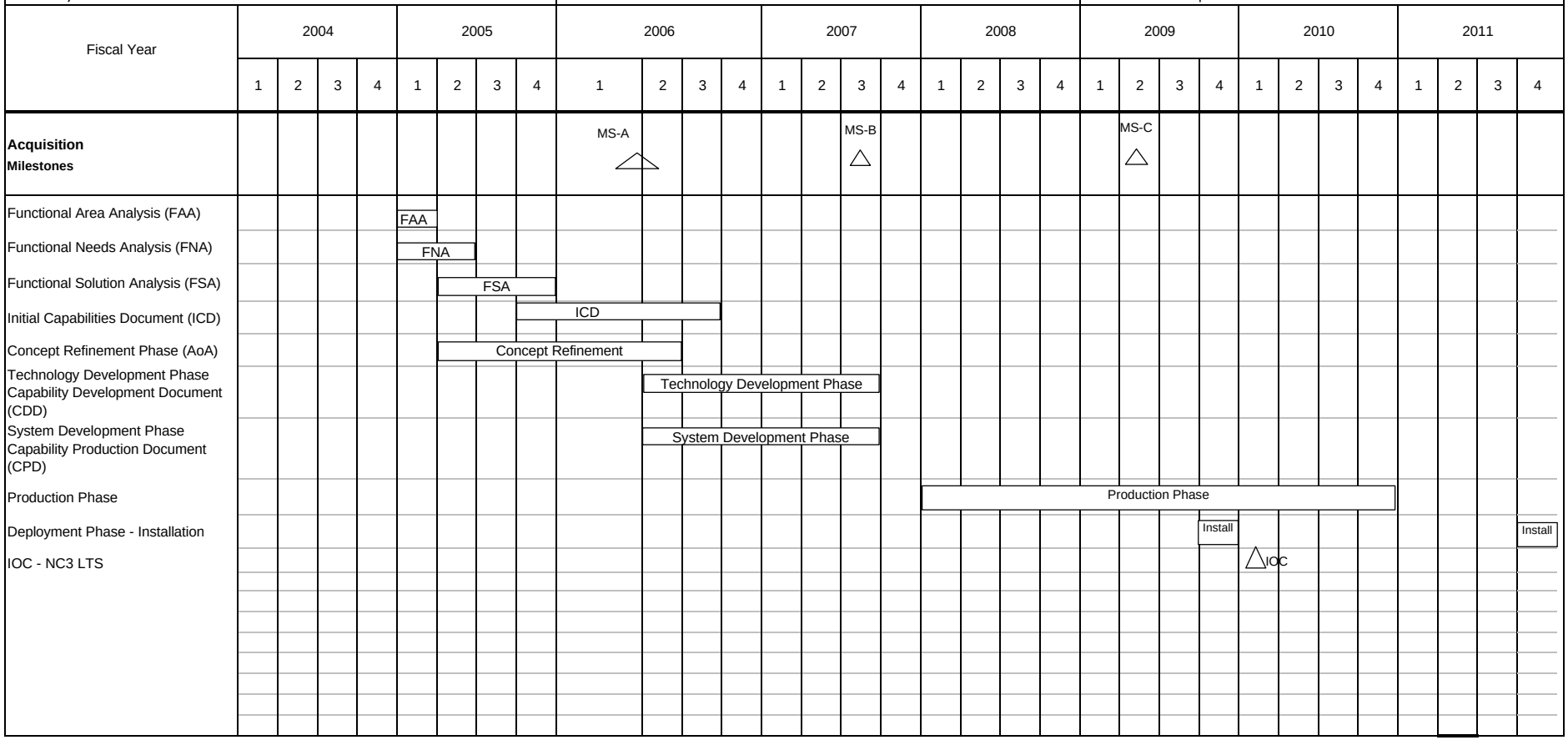
Nuclear Command, Control, Communications Systems - Long Term Solution

DATE: **Feb-05**

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

PROGRAM ELEMENT NUMBER AND NAME: PE: 0204163N FLEET TELECOMMUNICATIONS

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



Terminology taken from DoDI 5000.2, dtd 12 May 2003.

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **Feb 2005**		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT				PROJECT NUMBER AND NAME			
RDT&E, N BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS				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						
Initial Capabilities Document (ICD)		4Q	1Q-3Q					
Concept Refinement Phase (AoA)		2Q-4Q	1Q-2Q					
Milestone A (MS-A)			2Q					
Technology Development Phase (CDD)			2Q-4Q	1Q-3Q				
Milestone B (MS-B)				3Q				
System Development Phase (CPD)			2Q-4Q	1Q-3Q				
Milestone C (MS-C)						2Q		
Production & Deployment Phase					1Q-4Q	1Q-4Q	1Q-4Q	
Installation						4Q		4Q
IOC							1Q	

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CLASSIFICATION:

EXHIBIT R4, Schedule Profile			DATE:
	Submarine Enhanced Emergency Alert System - SEEAS		**Feb-05**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	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							△	AAP DESIGNATION																								
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)								△					△																			
Deliveries														△						△												

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **Feb-05**		
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-7**	PROGRAM ELEMENT PE: 0204163N FLEET TELECOMMUNICATIONS				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
Abbreviated Acquisition Program (AAP) Designation		3Q						
System Development								
Software Delivery (Test Set Ensemble)			3Q-4Q					
Operational Testing			1Q-4Q					
IOC				2Q				
Full Rate Production (FRP) Decision		4Q						
Full Rate Production Start		4Q						
First Deployment				2Q				

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CLASSIFICATION:

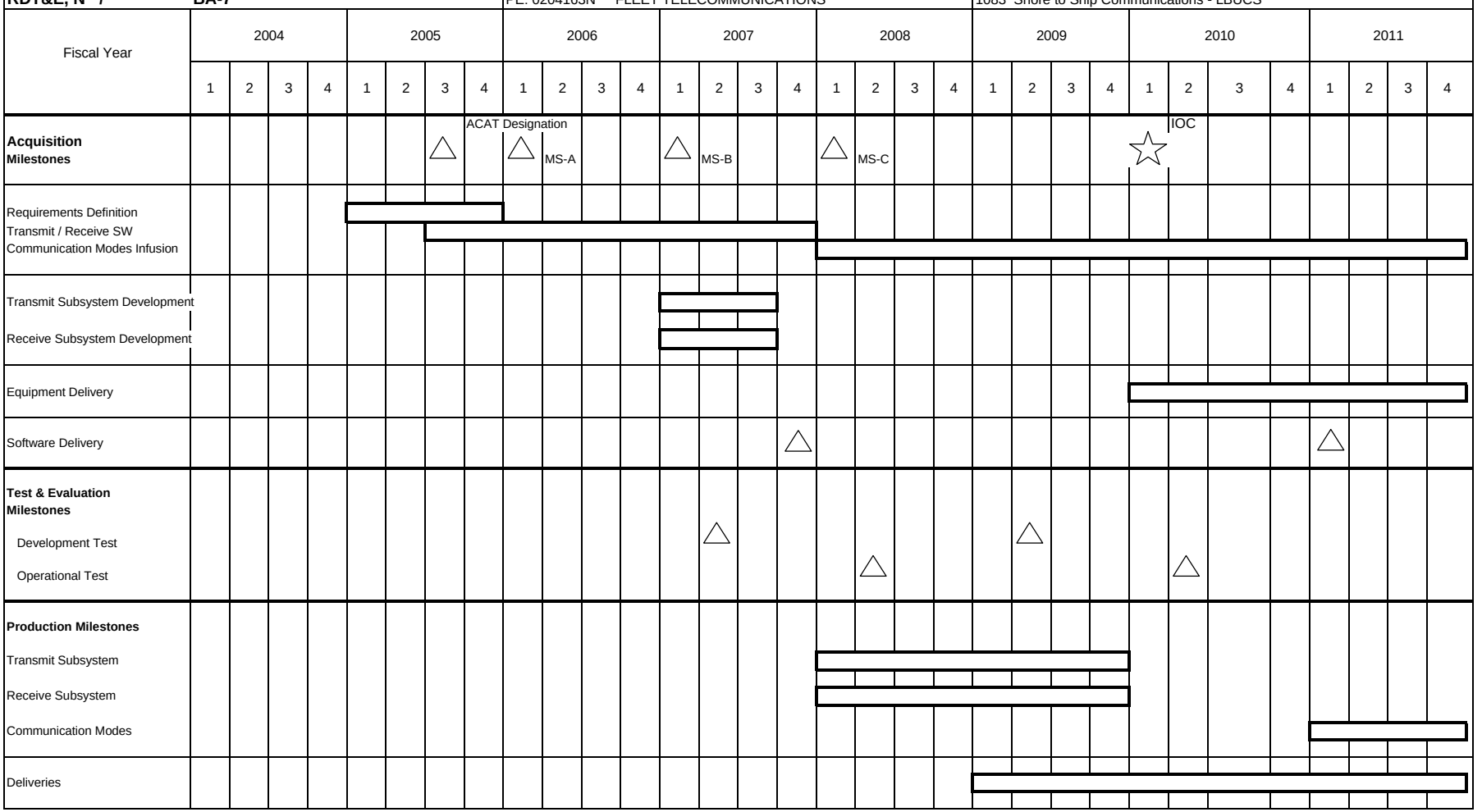
EXHIBIT R4, Schedule Profile
Low Band Universal Communication System

DATE: **Feb-05**

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

PROGRAM ELEMENT NUMBER AND NAME
PE: 0204163N FLEET TELECOMMUNICATIONS

PROJECT NUMBER AND NAME
1083 Shore to Ship Communications - LBUCS



R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: **Feb-05**		
APPROPRIATION/BUDGET ACTIVITY **RDT&BA-7**	PROGRAM ELEMENT PE: 0204163N FLEET TELECOMMUNICATIONS				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		3Q						
Requirements Definition		1Q-4Q						
Milestone A			1Q					
Transmit/Receive Software Development		3Q-4Q	1Q-4Q	1Q-4Q				
Milestone B				1Q				
Transmit/Receive Subsystem Development				1Q-3Q				
Software Delivery				4Q				
Development Test				2Q		2Q		
Operational Test					2Q		2Q	
Milestone C					1Q			
LRIP					1Q			
Full Rate Production						1Q		1Q-4Q
First Deployment							1Q	
IOC							1Q	
Communication Modes						1Q-4Q	1Q-4Q	1Q-4Q

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: **Feb-05**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	9421 Joint Integrated Systems Technology for Advanced Network Systems (JIST-NET)	

COST ($ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**6.742**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
RDT&E Articles Qty								

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

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 DoD and United States Congress. The project was moved to PEO C4I & Space, PMW 176 from the United States Air Force starting in FY04 to better meet the requirements, deadlines, and funding priorities established for the project.

The planned $6.7M is to conduct the JIST-NET software development and engineering analysis operations with deliverable outputs for FY04. The scope of this effort is in the system and software engineering area. The project will have the necessary system and software engineering support to help the PEO C4I & Space, PMW 176 team define requirements and interface/integrate existing and newly developed SATCOM mission management capabilities into the JIST-NET project. The contractor will update the JIST-NET Software Design for the next JIST-NET prototype using the results of the Software Requirements Analyses. The Software Design Update will build upon the current JIST NET V1S3 prototype software. The contractor will design, implement, and test the next JIST-NET prototype. Also, comprehensive studies of the actual usage of satellite resources in a given Area Of Responsibility (AOR) for a specified period of time will be done. Support will include all requirements analysis and development and interface definition support. The project team will provide all the necessary tools, software, documentation, and support necessary to accomplish the required analysis and integration. The long-term goal of this project is to provide dynamic real time or near real time apportionment, allocation and adjudication of satellite resources for the warfighters based on priorities and requirements as assigned by the Operational Commanders.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **Feb-05**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	9421 Joint Integrated Systems Technology for Advanced Network Systems (JIST-NET)

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Software Development / Systems Engineering	6.742	0.000	0.000	0.000
RDT&E Articles Quantity				

(U) **FY04**: The planned $6.7M is to conduct the JIST-NET software development and engineering analysis operations with deliverable outputs for FY04.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **Feb-05**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	9421 Joint Integrated Systems Technology for Advanced Network Systems (JIST-NET)

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY05 President's Budget	6.923	0.000	0.000	0.000
FY06 OSD Submit	6.742	0.000	0.000	0.000
Total Adjustments	-0.181	0.000	0.000	0.000
Summary of Adjustments				
Economic Assumptions	-0.006			
SBIR Transfer	-0.175			
Subtotal	-0.181	0.000	0.000	0.000

(U) Schedule:

Not Applicable.

(U) Technical:

Not Applicable.

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **Feb-05**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	9421 Joint Integrated Systems Technology for Advanced Network Systems (JIST-NET)

(U) D. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
Not Applicable										

(U) E. ACQUISITION STRATEGY:

Not Applicable

(U) F. MAJOR PERFORMERS:

Not Applicable

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)

DATE: **Feb-05**

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

PROGRAM ELEMENT: PE: 0204163N FLEET TELECOMMUNICATIONS

PROJECT NUMBER AND NAME: 9421 Joint Integrated Systems Technology for Advanced Network Systems (JIST-NET)

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
Systems Engineering	Various	Various	1.873							0.000	1.873	
Software Development	CPFF	NUWC (Newport, RI)	0.680							0.000	0.680	
Software Development	Various	Various	1.873							0.000	1.873	
Subtotal Product Development			4.426	0.000		0.000		0.000		0.000	4.426	

Remarks:

Studies & Analyses	CPFF	NUWC (Newport, RI)	1.020							0.000	0.000	
Studies & Analyses	Various	Various	0.936									
Subtotal Support			1.956	0.000		0.000		0.000		0.000	1.956	

Remarks:

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)

DATE: **Feb-05**

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

PROGRAM ELEMENT: PE: 0204163N FLEET TELECOMMUNICATIONS

PROJECT NUMBER AND NAME: 9421 Joint Integrated Systems Technology for Advanced Network Systems (JIST-NET)

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	WR	SSC SD (San Diego, CA)	0.250							0.000	0.250	
Subtotal T&E			0.250	0.000		0.000		0.000		0.000	0.250	

Remarks:

Program Management Support	Various	Various	0.110							0.000	0.110	
Subtotal Management			0.110	0.000		0.000		0.000		0.000	0.110	

Remarks:

Total Cost			6.742	0.000		0.000		0.000		0.000	6.742	

Remarks:

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: **February 2005**	
APPROPRIATION/BUDGET ACTIVITY **RDT&E, N / BA-2**	PROGRAM ELEMENT NUMBER AND NAME PE: 0204163N FLEET TELECOMMUNICATIONS				PROJECT NUMBER AND NAME 9618 - Programmable Integrated Communication Termnial			
COST ($ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	**0.000**	**1.377**	**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:

Provides a new design that offers additional benifits to enable the warfighters with the ability to change radio frequencies remotely via the Programmable Integrated Communication Terminals (PICTs) using the Digital Modular Radio (DMR)/Joint Tactical Radio System (JTRS).

Integration of the telephone and external communications systems is vital to the timely exchange of information among warfighters aboard ship and prevents unnecessary interoperability problems. The Navy is currently accomplishing the integration of the internal and external communication systems with the Programmable Integrated Communication Terminals (PICTs).

The PICT is the standard, integrated communications terminal used with the Integrated Voice Network (IVN) on amphibs, carriers and other critical weapons platforms. Its function is to provide the warfighter reliable access to all shipboard communications systems as well as secure and non-secure tactical communications channels.

In support of voice communications, the PICT is also filling the need for control of radio channels and encryption equipment. Ongoing PICT design development is enabling the Navy's migration to software defined radios by providing human machine interface for the digital modular radio (DMR), designed to work with the Joint Tactical Radio System (JTRS). Operator positions will become multi-functional and give the operator the ability to adapt to various operational scenarios with access to multiple communications circuits through a single terminal. This capability is needed to enable Naval Forces to interoperate with other US Services.

The PICT upgrade would also allow environmental testing and information assurance testing to ensure the unit and system can meet certification requirements.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N/BA-7	PE: 0204163N FLEET TELECOMMUNICATIONS	9618 - Programmable Integrated Communication Termnial

B. Accomplishments/Planned Program

PICT	FY04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	1.377	0.000	0.000
RDT&E Articles Quantity	N/A	N/A	N/A	N/A

FY05: 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. 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 MIL-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.

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-2	PE: 0204163N FLEET TELECOMMUNICATIONS	9618 - Programmable Integrated Communication Termnial

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY05 President's Budget:	0.000	0.000	0.000	0.000
FY06 President's Budget:	0.000	1.377	0.000	0.000
Total Adjustments	0.000	1.377	0.000	0.000
Summary of Adjustments				
Congressional Increase		1.400		
Congressional Rescissions		-0.023		
Subtotal	0.000	1.377	0.000	0.000

Schedule:

Not Applicable.

Technical:

Not Applicable.

Funding:

Not Applicable.

R-1 SHOPPING LIST - Item No. 171

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: **February 2005**
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-2	PE: 0204163N FLEET TELECOMMUNICATIONS	9618 - Programmable Integrated Communication Termnial

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: *

F. MAJOR PERFORMERS:

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

R-1 SHOPPING LIST - Item No. 171