CLASSIFICATION:							
EXHIBIT R-2, RDT&E Budget Item Justification					DATE:		
EATIBIT N-2, NOTAL Budget item Justinication						February 2006	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /	BA-6		R-1 ITEM NOMEN 0605866N Navy S		nic Warfare (SEW)	Support	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	2.321	2.788	2.904	2.943	3.031	2.970	3.164
0706 EMI Reduction and Radio Frequency Mgmt.	1.267	1.832	1.908	1.976	2.031	2.073	2.115
0739 Navy C4I Top Level Requirements	1.054	0.956	0.996	0.967	1.000	0.897	1.049
Quantity of RDT&E Articles							

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

Project 0706, Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management - Develops advanced technology to identify and reduce EMI sources from Navy systems and platforms.

Project 0739, Navy C4I Top Level Requirements - This project provides analysis of both Fleet requirements and development technology, to develop top-level plans and space systems in the Space and Electronic Warfare (SEW) mission area. The Space and Electronic Warfare Studies and Analysis (SEWSAP) program supports analyses of Fleet requirements and research and development technology to develop top-level plans for operating Navy Command, Control, Communications, Intelligence, Surveillance and Reconnaissance (C4ISR) and space systems in the SEW mission area.

(U) JUSTIFICATION FOR BUDGET ACTIVITY:

This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

CLASSIFICATION:									
EXHIBIT R-2a, RDT&E Project Justification								DATE:	
								Februai	ry 2006
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEME	ENT NUMBER AND	NAME		PROJECT NUMBE	R AND NAME		
RDT&E, N / BA-6	0605866N Navy Sp	ace and Electronic	Warfare (SEW) Sup	port		0706 EMI Reduction and Radio Frequency Management			
COST (\$ in Millions)			FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost			1.267	1.832	1.908	1.976	2.031	2.073	2.115
RDT&E Articles Qty									

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

Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management. This project develops tools, processes, and algorithms to identify and reduce EMI sources for Navy systems and platforms. There are several efforts under development to identify and reduce EMI through proper use of the electromagnetic spectrum. Automated capabilities will be developed that reflect research into new operational fleet battle group frequency management processes. They reflect current fleet needs for a communications planning and frequency management tool used to plan communication links and analyze, allocate, and assign communication and radar frequencies for fleet operations. Research also includes EMI models for phased arrays, development of new analysis techniques and technologies to avoid EMI, and development of guidance to harmonize commercial EMI practices.

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME
RDT&E, N / BA-6	0605866N SEW Support	0706 EMI Reduction and Ra	dio Frequency Management

(U) B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
AESOP (Integrated CPM and EMCAP)	0.000	1.171	1.200
Civpers Pay raise rate			0.021
RDT&E Articles Quantity			

(U) FY 2005

Developed interfaces for AESOP (Afloat Electromagnetic Spectrum Operations Program), and other automated tools to interface with evolving network protocols and to ensure currency for web based applications. Developed new algorithms for automated tools for new Navy C4ISR systems for both government and commercial communication systems being used by the Navy.

(U) FY 2006 - FY2007

Develop interfaces for AESOP, and other automated tools to interface with evolving network protocols and to ensure currency of web based applications. Develop new algorithms for automated tools for new Navy C4ISR systems for both government and commercial communication systems being used by the Navy. Implement a set of web-based capabilities utilizing latest technologies (XML) and other data standards to optimize information exchange/usability. Institutionalize frequency management process for operational fleet by developing procedures that can be utilized by all Navy Strike Groups.

	FY 05	FY 06	FY 07
Automated Tools	0.000	0.661	0.687
RDT&E Articles Quantity			

(U) FY 2005

Developed a multi band approach for current probe technology for multiple frequencies (HF, VHF, and UHF) that eliminates many of those legacy antennas and has the potential to drastically reduce shipboard interference effects.

(U) FY 2006 - FY2007

Conduct research, development, testing, evaluation (RDTE), verification, validation, and assessment (VV&A) of afloat spectrum management software and automated tools for all U.S.

Navy surface ships and shore commands. This includes the capability to provide commanders with increased common picture of spectrum situational awareness of friendly and hostile forces and transparently deconflict competing mission requirements for spectrum use. This capability will support transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations and will support the integration of sensors, weapons systems, and software communications architecture for the U.S. Navy.

EXHIBIT R-2a, RDT&E Project Justification			DATE:	
				February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	IAME	
RDT&E, N /BA-6	0605866N SEW Support	0706 EMI Reduction and Ra	dio Frequency Management	

(U) B. Accomplishments/Planned Program

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

(U) FY 2005

Continued development of models to analyze antenna enhancements, and researched the interference for below decks emitters such as wireless LANs to the topside and below decks environments. Researched new technology efforts related to spectrum usage implementation of advanced capabilities that foster the implementation of cutting edge capabilities. Due to congested topside environment, developed recommended enhancements to antennas to reduce incidences of interference.

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

(U) FY 2005

Assisted battle group staffs and COCOMs in developing frequency management process improvements. Institutionalized frequency management process for operational fleet by developing procedures that can be utilized by all Navy battle groups.

EXHIBIT R-2a, RDT&E Project Justification					DATE:	F-1	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	S AND NAME		PROJECT NUMBER AI	ND NAME	February 2006	
RDT&E, N / BA-6		V AND NAME				anay Managamant	
KDIGE, N / BA-0	0605866N SEW Support			0706 EMI Reduction an	u Radio Frequi	епсу мападетені	
(U) C. PROGRAM CHANGE SUMMARY:							
(U) Funding:		FY 2005	FY 2006	FY 2007			
FY06 President's Budget:		0.000	1.859	1.909			
Current BCP/FY07 PRES Budget	_	0.000	1.832	1.908			
Total Adjustments		0.000	-0.027	-0.001			
Summary of Adjustments							
Contract Support Reduction				-0.006			
NWCF Civpers Efficiencies				-0.023			
N7 Respread of Contractor Support				-0.001			
Inflation				0.008			
Sec. 8125: Revised Economic Assum			-0.008				
Congressional Action 1% Reduct			-0.019				
Civpers pay raise rate				0.021			
Subtotal	-	0.000	-0.027	-0.001			
Capicial		0.000	0.027	0.001			
(U) Schedule:							
Not Applicable							
(U) Technical:							
Not Applicable							

CLASSIFICATION:

PROPRIATION/BUDGET ACTIVITY	PROGRAM E	EMENT NUMBER AND NAME	PROJECT NUMBER AND N	AME	
T&E, N / BA-6	0605866N SE	W Support	0706 EMI Reduction and Rad	dio Frequency Management	
(U) D. OTHER PROGRAM FUNDING S	SUMMARY:				
Line Item No. & Name	FY 2005	FY 2006 FY 2007 FY 2008	FY 2009 FY 2010	To Total FY 2011 Complete Cost	
	<u> 2000</u>	<u> </u>	<u> </u>	<u> </u>	
Not Applicable					
(U) E. ACQUISITION STRATEGY: *					
Not Applicable					
(U) F. MAJOR PERFORMERS:					
PERFORMER/RECIPIENT	CITY & STATE	BRIEF DESCRIPTION OF WO	ORK	AWARD DATE	
NSWC Dahlgren	Dahlgren, VA		MCAP Validation, AESOP Supp		
Sentel	Alexandria, VA	Automated Tools Deve		Various	
SSC-SD	San Diego, CA	Electromagnetic Compat	idility (EMC) Support	Various	

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE:		
						February 2006		
APPROPRIATION/BUDGET ACTIVITY					PROJECT NUMBE	R AND NAME		
RDT&E, N / BA-6	0605866N / Navy S	Space & Electronic	Warfare (SEW) Suppo	ort	0739 Navy C4I Top	p Level Requirements		
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
*Project Cost	1.054	0.956	0.996	0.967	1.000	0.897	1.049	
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project provides analysis of both Fleet requirements and research and development technology, to develop top-level plans and space systems in the Space and Electronic Warfare (SEW) mission area. The Space and Electronic Warfare Studies and Analysis (SEWSAP) program supports analyses of Fleet requirements and research and development technology to develop top-level plans for operating Navy Command, Control, Communications, Intelligence, Surveillance and Reconnaissance (C4ISR) and space systems in the SEW mission area.

Performance Metrics: Conduct and report upon studies, plans and analysis of Fleet requirements for operating Navy C4ISR and space systems in the SEW mission area.

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND I	NAME
RDT&E, N / BA-6	0605866N / Navy Space & Electronic Warfare (SEW) Support	0739 Navy C4I Top Level R	equirements

B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.054	0.956	0.996

FY 2005 Accomplishments:

- Studies supported resource and requirement decisions in the Planning, Programming, and Budgeting System; FORCEnet Fleet experiments; FORCEnet Architecture selection; evaluation of Tactics, Techniques, and Procedures (TTP); alignment of Science and Technology (S&T) and Research, Development, Test, and Evaluation (RDT&E) efforts with FORCEnet requirements; evaluation and selection of Modeling and Simulation (M&S) tools and scenarios. SEWSAP (1) applied previously-developed models and analytic methods to identify areas of highest sensitivity in Command, Control, Communications (C3) performance, (2) extended previous architectural work on Naval operational functions and networks to detailed analyses of C3 and network requirements and, (3) extended previous system engineering results to newly emerging implementation issues.
- Conducted analysis of C4ISR and network performance to identify areas of greatest transformational impact on C4ISR performance and newly emerging capabilities and implementation issues.

FY 2006 Plans

- Conduct analysis of C4ISR and network performance to identify areas of greatest transformational impact on C4ISR performance and newly emerging capabilities and implementation issues.

FY 2007 Plans

- Conduct analysis of C4ISR and network performance to identify areas of greatest transformational impact on C4ISR performance and newly emerging capabilities and implementation issues.

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-6	0605866N / Navy Space & Electronic Warfare (SEW) Support				0739 Navy C4I Top Level Requirements	
C. PROGRAM CHANGE SUMMARY:						
Funding:		FY 2005	FY 2006	FY 2007		
FY 2006 President's Budget Submission		1.066	0.970	1.096		
FY 2007 President's Budget Submission		1.054	0.956	0.996		
Total Adjustments		-0.012	-0.014	-0.100		
Summary of Adjustments						
Congressional Undistributed		-0.001	-0.014	0.000		
Execution Adjustment		-0.011	0.000	0.000		
Functional Realignment for OPNAV P	rogram Support Costs	0.000	0.000	-0.019		
Rate Adjustments		0.000	0.000	0.010		
Program Adjustments		0.000	0.000	-0.091		
Subtotal		-0.012	-0.014	-0.100		
Schedule:						
Not applicable.						
Technical:						
Not applicable.						

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-6	0605866N / Navy Space & Electronic Warfare (SEW) Support	0739 Navy C4I Top Level Requirements		
D. OTHER PROGRAM FUNDING SUMMARY:				
Line Item No. & Name				
Not applicable.				
E. ACQUISITION STRATEGY: *				
Not Applicable.				
* Not required for Budget Activities 1,2,3, and 6				