

DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2008/2009
BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES
FEBRUARY 2007

RESEARCH, DEVELOPMENT, TEST &
EVALUATION, NAVY
BUDGET ACTIVITY 6

Department of Defense Appropriations Act, 2007

Research, Development, Test and Evaluation, Navy

For expenses necessary for basic and applied scientific research, development, test and evaluation, including maintenance, rehabilitation, lease, and operation of facilities and equipment, \$18,673,894,000, to remain available for obligation until September 30, 2008: *Provided*, That funds appropriated in this paragraph which are available for the V-22 may be used to meet unique operational requirements of the Special Operations Forces: *Provided further*, That funds appropriated in this paragraph shall be available for the Cobra Judy program.

"In accordance with the President's Management Agenda, Budget and Performance Integration initiative, this program has been assessed using the Program Assessment Rating Tool (PART). Remarks regarding program performance and plans for performance improvement can be located at the Expectmore.gov website."

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 2008 RDT&E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319N Research, Development, Test & Eval, Navy

Date: 19 JAN 2007

Line No --	Program Element Number -----	Item -----	Act ---	Thousands of Dollars			S E C -
				FY 2006 -----	FY 2007 -----	FY 2008 -----	
135	0605013M	Information Technology Development	05	30,994	14,272	22,181	U
136	0605013N	Information Technology Development	05	114,032	119,972	54,098	U
137	0605172N	Multinational Information Sharing (MNIS)	05	10,631	20,777		U
138	0605212N	CH-53K RDTE	05	251,970	350,322	417,161	U
139	0605500N	Multi-mission Maritime Aircraft (MMA)	05	926,971	1,127,376	880,106	U
140	0304785N	Tactical Cryptologic Systems	05		27,720	39,053	U
		System Development & Demonstration		8,596,597	8,900,172	7,848,516	
141	0604256N	Threat Simulator Development	06	23,444	23,578	23,924	U
142	0604258N	Target Systems Development	06	38,517	47,734	32,376	U
143	0604759N	Major T&E Investment	06	39,746	75,908	37,614	U
144	0605152N	Studies and Analysis Support - Navy	06	8,712	7,066	7,516	U
145	0605154N	Center for Naval Analyses	06	46,798	47,439	49,360	U
146	0605155N	Fleet Tactical Development	06	2,151	2,585		U
147	0605502N	Small Business Innovative Research	06	361,320			U
148	0605804N	Technical Information Services	06	28,324	24,976	694	U
149	0605853N	Management, Technical & International Support	06	41,665	45,126	49,498	U
150	0605856N	Strategic Technical Support	06	3,253	3,334	3,452	U
151	0605861N	RDT&E Science and Technology Management	06	65,278	66,731	68,180	U
152	0605862N	RDT&E Instrumentation Modernization	06	1,571	1,238	1,423	U
153	0605863N	RDT&E Ship and Aircraft Support	06	79,799	82,825	184,541	U

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 2008 RDT&E PROGRAM

EXHIBIT R-1

APPROPRIATION: 1319N Research, Development, Test & Eval, Navy

Date: 19 JAN 2007

Line No --	Program Element Number -----	Item -----	Act ---	Thousands of Dollars			S E C -
				FY 2006 -----	FY 2007 -----	FY 2008 -----	
154	0605864N	Test and Evaluation Support	06	314,372	327,038	336,130	U
155	0605865N	Operational Test and Evaluation Capability	06	12,674	11,831	12,176	U
156	0605866N	Navy Space and Electronic Warfare (SEW) Support	06	3,551	4,127	2,439	U
157	0605867N	SEW Surveillance/Reconnaissance Support	06	12,837	18,098	29,071	U
158	0605873M	Marine Corps Program Wide Support	06	32,671	31,182	20,166	U
159	0305885N	Tactical Cryptologic Activities	06		1,000	1,508	U
160	0804758N	Service Support to JFCOM, JNTC	06	17,698	12,750	5,078	U
161	0909999N	Financing for Cancelled Account Adjustments	06	4,065			U
		RDT&E Management Support		1,138,446	834,566	865,146	
162	0603660N	Advanced Development Projects	07				
163	0604227N	HARPOON Modifications	07		27,894	43,470	U
164	0604402N	Unmanned Combat Air Vehicle (UCAV) Advanced Component and Prototype Development	07		99,622	161,665	U
165	0101221N	Strategic Sub & Weapons System Support	07	87,897	126,691	81,398	U
166	0101224N	SSBN Security Technology Program	07	42,538	42,707	33,109	U
167	0101226N	Submarine Acoustic Warfare Development	07	9,299	2,123	4,149	U
168	0101402N	Navy Strategic Communications	07	38,093	37,317	36,531	U
169	0203761N	Rapid Technology Transition (RTT)	07	26,378	39,326	44,756	U
170	0204136N	F/A-18 Squadrons	07	83,538	39,279	44,891	U
171	0204152N	E-2 Squadrons	07	20,954	9,803	22,691	U

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
Total PE	23,444	23,578	23,924	25,139	25,818	26,336	26,805	27,285
0602 ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)	11,234	11,506	11,690	12,318	12,597	12,834	13,051	13,275
0672 EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)	12,210	12,072	12,234	12,821	13,221	13,502	13,754	14,010

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This is a continuing program that consolidates the design, fabrication and integration of Naval Electronic Warfare (EW) threat simulators for increased managerial emphasis and coordination. These simulator development efforts provide realistic developmental and operational test and evaluation environments to test tri-services EW systems and defensive tactics. These projects develop former Soviet and free-world anti-air and anti-ship weapon systems simulators in accordance with the services' requirements.

The 0602 Project, Electronic Warfare Environment Simulation, directly supports the test and evaluation resource requirements for all Naval air EW development programs to include multi-spectral situational awareness and countermeasures. Programs in development and future programs include: Advanced Anti-Radiation Guided Missile, ALR-67 (v) 2 and (v) 3, Integrated Defensive Electronic Countermeasures suite ALQ-214, AAR-47 (v) 2 and the AAR-47 (v) 3, AVR -2, advanced 6" expendable, Advanced Strategic Tactical Expendable, ALQ-144A, Assault and Strike Directed Infrared Countermeasures, Joint Strike Fighter, EA-18G, EA-6B Improved Capability Program III, LR700 and the Low Band Transmitter. This project also supports joint service EW systems with initial operational capability in the mid to late 2000's.

The 0672 Project, Effectiveness of Navy EW Systems (ENEWS), is a Department of Navy (DON) unique project that supports Test and Evaluation (T&E) of Ships EW efforts. ENEWS provides T&E for surface and subsurface shipboard systems and tactics in digitally modeled battle scenarios at the component, fully integrated single ship, multi-ship and full-up multi-platform battle group levels. ENEWS also provides a secure anechoic closed

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

loop T&E facility specifically designed to test shipboard systems at the stand alone subsystem or fully integrated systems level. The last and largest portion of this project addresses the flyable Infrared and Radio Frequency simulators flown on specially configured NP-3D aircraft to provide at-sea open air T&E for systems and tactics. All ENEWS assets are developed, operated and maintained by the Naval Research Laboratory, Washington, DC.

UNCLASSIFIED

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2007 President's Budget Submission	23,560	23,668	24,540	25,331
Congressional Undistributed Reductions/Rescissions	17	-90	0	0
Execution Adjustments	27	0	0	0
Non-Pay Inflation Adjustments	0	0	-156	145
Program Adjustments	0	0	-489	-463
Rate Adjustments	0	0	29	126
SBIR Assessment	-160	0	0	0
FY 2008/FY 2009 President's Budget Submission	23,444	23,578	23,924	25,139

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

E. PERFORMANCE METRICS:

Performance metrics are discussed within each project (R2a).

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT NUMBER: 0602 PROJECT TITLE: ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0602 ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)	11,234	11,506	11,690	12,318	12,597	12,834	13,051	13,275

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The objective of this project is development of necessary simulation facilities and approaches to allow determination of the effectiveness of EW in real world engagement situations and to support the introduction of modern, effective systems into Naval Aviation. The heavy use of test resources by all Services demonstrates the importance of these assets. The Navy has been very successful in executing all of its major programs, and to date has had no major technical problems.

The EW Environment Simulation (ECHO) project is unique in that it is the only program within the Department of Defense (DoD) which develops and provides Naval anti-air warfare threat assets for Testing and Evaluation (T&E) and is a critical part of the Office of the Secretary of Defense (OSD) Test Resource Master Plan. The OSD Master Plan employs many ECHO project resources for planning, analysis, testing and verification of airborne EW equipment.

This project directly supports the T&E resource requirements for all Naval Air EW development programs, to include multi-spectral situational awareness and countermeasures. Programs in development and future programs include: Advanced Anti-Radiation Guided Missile (AARGM), ALR-67 (v) 2 and (v) 3, Integrated Defensive Electronic Countermeasures (IDECM) Suite ALQ-214, AAR-47 (v) 2 and the AAR-47 (v) 3, AVR -2, Advanced 6" Expendable, Advanced Strategic Tactical Expendable (ASTE), ALQ-144A, Strike and Assault Directed Infrared Countermeasures (DIRCM), Joint Strike Fighter, EA-18G, EA-6B Improved Capability Program (ICAP III), LR700 and the Low Band Transmitter (LBT). This project also supports Joint Service EW systems with initial operational capability in the mid to late 2000's.

This project provides for the development of an Integrated Air Defense T&E capability to be fielded at each of the three sites comprising the Navy's Tri-Center complex: Naval Air Warfare Center Weapons Division, China Lake and Point Mugu in CA, and Naval Air Warfare Center Aircraft Division, Patuxent River, MD.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0602

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
ELECTRO-OPTICAL/INFRA-RED (EO/IR) THREAT CAPABILITIES	3,660	5,083	2,675	2,380

FY 2006 - FY 2009: Provide the test community with the modern threat systems necessary for T&E of airborne Electro-Optic/InfraRed (EO/IR) passive alert systems and airborne EO/IR active response systems. Develop one versus many and many versus many integrated countermeasure assessment systems which provide spectral, power, and temporal systems to test and evaluate missile warning systems and measure the end-game effectiveness of IR expendables and directional IR countermeasures systems by simulating high speed IR missile engagements against airborne targets. Combine the capability of the existing IR seeker vans to enable testing of up to 12 seekers simultaneously to expedite data collection against tier 1 IR Surface to Air Missiles (SAMs). Upgrade the IR sensor stimulator with the capability for IR plume simulators to react to threat missile seeker guidance commands; to enable the plume stimulator to receive immediate feedback from the instrumentation observing the countermeasure's effectiveness; and to relay that "response" to the controlling software that generates the plume signature.

	FY 2006	FY 2007	FY 2008	FY 2009
RADIO FREQUENCY (RF) THREAT CAPABILITIES	5,634	4,242	6,972	7,841

FY 2006 - FY 2009: Provide the test community with the modern threat systems necessary for T&E of airborne RF alert, situation awareness, targeting systems and airborne RF response systems. Upgrade the existing open air range and laboratory threat simulators to provide a new generation, high fidelity double digit threat I-34 (Advanced Threat Simulator). Provide advanced modulation and millimeter wave capability to the advanced multiple environment simulators. Procurement and integration of an advanced threat system through the foreign materials acquisition channels. Continue intel updates to missile, radar, and gun simulations. Upgrade the I-32 open air antenna with side lobe canceling and replace the aging transmitter; provide the I-32 simulator at electronic combat range with a second frequency for multiple-missile launch, side-lobe canceling and improved electronic counter-counter measure capabilities. Develop long range threat systems to simulate double digit SAMs, using recent intelligence and available exploitation data gathered by the Missile and Space Intelligence Center.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0602

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)

	FY 2006	FY 2007	FY 2008	FY 2009
REQUIREMENTS AND VALIDATION	1,940	2,181	2,043	2,097

FY 2006 - FY 2009: Validate and track intel updates of the threat systems necessary for the operation and continuous improvement of Navy laboratories and ranges which provide engineering support, testing and analysis to the developers, integrators, testers and users of systems and technologies that counter or penetrate air defenses. Provide program management and systems engineering support for the development of simulators and the acquisition of foreign material to accurately reflect current and future threat scenarios.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT NUMBER: 0672 PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0672 EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)	12,210	12,072	12,234	12,821	13,221	13,502	13,754	14,010

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The objective of the Effectiveness of Navy Electronic Warfare (EW) Systems (ENEWS) Project is the development and application of necessary simulation assets to determine the effectiveness of EW for navy ships in simulated real-world engagement situations. The project primarily supports the introduction of modern, effective shipboard and offboard EW systems, and tactics for the Surface Navy. The heavy use of ENEWS resources by Naval Sea Systems Command, Operational Test and Evaluation (OT&E) Force, Special Operations, and other EW Research, Development, Test and Evaluation (T&E) agencies speaks to the overall importance of this project. The project provides support for EW system design Engineering Test (ET), Development Test (DT), Operational Test (OT), and the development of utilization tactics. Its quick reaction capabilities have had great impact on crisis situations such as the Lebanon and Libyan crises, Iran Harpoon threat, Persian Gulf crisis, and Operation Desert Shield/Storm. Simulation Display is another ENEWS modeling tool that was developed to support T&E. The display has been adopted by most Department of Defense (DoD) T&E and training ranges to provide visualization of T&E and training scenarios. The primary threat to surface ships is Anti-Ship Capable Missile systems. The ENEWS Project is unique in that it is the only project within DoD dedicated to developing and providing realistic Anti-Ship Capable Missile assets to test and evaluate the effectiveness of shipboard EW systems and tactics against these type threats. The ENEWS Project is a critical part of the Office of the Secretary of Defense Test Resource Master Plan. This plan employs many of the ENEWS assets for planning, analysis, testing, and verification of shipboard and offboard EW systems techniques and tactics. As part of its normal activities, ENEWS provides Development Test and Evaluation (DT&E), OT&E, and Follow-on Operations Test and Evaluation (FOT&E) support to the surface Navy for all ship classes. DT, OT and FOT&E support includes AN/SLQ-32 Surface Electronic Warfare Improvement Program (SEWIP), R17.OX NULKA, Rapid Anti-ship Integrated Defense System, all MK245 Giant tests, advanced InfraRed (IR) decoys, decoy placement, ship IR signature and radar cross section measurement of DDG-51, LPD-17, DD-21 and PC class ships, High Power Microwave program, and other ship self-defense initiatives, including T&E of Future Naval Capability process. In addition, ENEWS assets are regularly employed to test the effectiveness of North Atlantic Treaty Organization ships' EW systems in joint allied exercises.

R1 Line Item 141
Page 7 of 19

UNCLASSIFIED

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT NUMBER: 0672 PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
SIMULATOR HARDWARE UPGRADES	69	77	240	250

Provides simulator upgrades to ENEWS flyable and shore based IR and RF simulators.

The increase between FY 2007 and FY 2008 is due to an increased tempo of operational testing.

FY 2006 Accomplishments:

- Initiated and completed intelligence upgrades to MEIR 3, SUMMIT and FOXTROT 1 Standard Instrumentation Pods (SIP).
- Initiated intelligence upgrades to MIKE 3 SIP, and VICTOR 1 SIP.

FY 2007 Plans:

- Continue all efforts of FY 2006.
- Complete intelligence upgrades to Mike 3 and VICTOR 1 SIPs.
- Initiate intelligence upgrades to FOXTROT 3 and MIKE 4 SIPs.

FY 2008 Plans:

- Continue all efforts of FY 2007 less those noted as completed above.
- Complete intelligence upgrades to FOXTROT 3 and MIKE 4 SIPs.
- Initiate intelligence upgrades to FOXTROT 2 and VICTOR 2 SIPs.

FY 2009 Plans:

- Continue all efforts of FY 2008 less those noted as completed above.
- Complete intelligence upgrades to FOXTROT 2 and VICTOR 2 SIPs.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
SIMULATOR SOFTWARE UPGRADES	60	68	130	100

Provides software upgrades to existing ENEWS flyable and shore based simulations required due to either hardware upgrades or new intelligence information. FY 2006 - FY 2007 focus is on upgrades to existing simulators.

The increase between FY 2007 and FY 2008 is due to an increased tempo of operational testing.

FY 2006 Accomplishments:

- Initiated intelligence upgrades to MIKE 3 and VICTOR 1 SIPs. There will be 2 simulations: visible band and sim 4.
- Completed software intelligence upgrades to MEIR 3, SUMMIT and FOXTROT 1 SIP.

FY 2007 Plans:

- Continue all efforts of FY 2006 less those noted as completed above.
- Complete software intelligence upgrades to MIKE 3 and VICTOR 1 SIPs.
- Initiate software intelligence upgrades to FOXTROT 3 and MIKE 4 SIPs.

FY 2008 Plans:

- Continue all efforts of FY 2007 less those noted as completed above.
- Complete software intelligence upgrades to FOXTROT 3 and MIKE 4 SIPs.
- Initiate software intelligence upgrades to FOXTROT 2 and VICTOR 2 SIPs.

FY 2009 Plans:

- Continue all efforts of FY 2008 less those noted as completed above.
- Complete software intelligence upgrades to FOXTROT 2 and VICTOR 2 SIPs.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
SIMULATOR CHARACTERIZATION	26	29	35	40

Provides characterization of IR and RF simulators as part of the periodic checks on simulator performance and collects performance data for comparison with previously recorded data.

Operational requirements demand that these simulators to be available to support testing events. Simulator baselines must be established, updated and documented in order to ensure the simulators are operating in accordance with their design specifications.

FY 2006 Accomplishments:

- Initiated and completed characterization of INDIA I.

FY 2007 Plans:

- Initiate and complete characterization of NOVEMBER Va, NOVEMBER Vb and 3rd generation INDIA II control panel.

FY 2008 Plans:

- Initiate and complete characterization of KILO, QUEBEC AND TANGO.

FY 2009 Plans:

- Initiate and complete characterization of INDIA III and PAPA.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
SIMULATOR MAINTENANCE	1,100	1,071	992	1,176

Provides required simulator maintenance to ensure that the hardware simulators are available for customer testing. Preventative maintenance, troubleshooting, and repairs are performed as required.

Operational requirements demand that these simulators be available to support testing events. Maintenance is the key to having them available.

FY 2006 Accomplishments:

- Continued annual maintenance on 21 simulators - 15 RF and 6 IR simulators to support 15 flight/shore based tests.
- Initiated and completed transition of the INDIA II and TANGO simulators into the Naval Research Laboratory (NRL) Learjet Electronics Pod (LEP).

FY 2007 Plans:

- Continue all efforts of FY 2006.
- Initiate and complete transition of NOVEMBER and QUEBEC simulators into the NRL LEP.

FY 2008 Plans:

- Continue all efforts of FY 2007.
- Initiate and complete transition of the ROMEO simulator into the NRL LEP.

FY 2009 Plans:

- Continue all efforts of FY 2008.
- Initiate and complete transition of the INDIA III into the NRL LEP.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
SIMULATOR CONTROL PANELS	253	244	217	270

Supports the development and maintenance of all simulator control panels.

Operational requirements demand that these simulator control panels be available to support testing events.

FY 2006 Accomplishments:

- Completed FOXTROT 1 SIP and INDIA I simulator control panels with 10 assemblies.
- Initiated INDIA II simulator control panel.

FY 2007 Plans:

- Continue all efforts of FY 2006 less those noted as completed above.
- Complete INDIA II simulator control panel.

FY 2008 Plans:

- Continue all efforts of FY 2007 less those noted as completed above.
- Initiate QUEBEC control panel.

FY 2009 Plans:

- Continue all efforts of FY 2008.
- Complete QUEBEC control panel.
- Initiate and complete VICTOR 1 SIP control panel.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
LABORATORY FACILITIES	1,022	1,027	900	940

Provides maintenance and upgrades to the indoor laboratory and outdoor land based facilities required to perform testing of surface EW systems.

Change reflects slowdown of upgrades and increased tempo of operational testing.

FY 2006 Accomplishments:

- Initiated and completed upgrades to the mobile IR simulator van, adding 400 cycle power and 27 volt DC to support 5 simulators.

FY 2007 Plans:

- Initiate maintenance and upgrades to shore based test facilities and mobile test vans as required to conduct tests in support of SEWIP, NULKA and multi function EW programs.

FY 2008 Plans:

- Continue all efforts of FY 2007.

FY 2009 Plans:

- Continue all efforts of FY 2008.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
SIMULATION THREAT REPOSITORY	40	43	30	35

Provides management, access, and configuration control of the classified document and simulations library.

Operational requirements demand that these digital simulators be available to support testing events. It requires the most up-to-date and accurate information on threat systems in order to model the realistic simulators.

FY 2006 Accomplishments:

- Continued transitioning NRL Codes 5750 and 5770's environmental, threat and platform simulations to the subversion software configuration management program. Upgraded subversion software library as new releases became available - 100 updates annually.
- Initiated and completed evaluation of subversion database software analyzing new capabilities to improve configuration management.
- Initiated new digital models of Anti-ship Cruise Missile (ASCM) threats as they became available.

FY 2007 Plans:

- Continue all efforts of FY 2006.

FY 2008 Plans:

- Continue all efforts of FY 2007.

FY 2009 Plans:

- Continue all efforts of FY 2008.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
SIMULATION INSTRUMENTATION	482	566	555	670

Provides development and maintenance of flight support instrumentation such as oscilloscopes, global positioning systems, videocassette systems, and monitors.

Operational capabilities demand that these instrumentation systems be available to support testing events.

FY 2006 Accomplishments:

- Continued upgrades and maintenance of flight support systems as necessary to support the IR/RF ENEWS simulators. There are 15 RF and 6 IR simulators.
- Initiated and completed TANGO console for the Learjet to support scheduled fleet testing.
- Initiated and completed installing digital video recorder on INDIA II console.

FY 2007 Plans:

- Continue all efforts of FY 2006.

FY 2008 Plans:

- Continue all efforts of FY 2007.

FY 2009 Plans:

- Continue all efforts of FY 2008.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT NUMBER: 0672 PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
SIMULATION VALIDATION	677	606	530	590

Provides for the validation of hardware simulators and digital models. Develops reports that contain detailed descriptions and parametric data of the threat simulators or digital models and compares the simulator's parametric data to the actual threat parametric data.

DoD and Department of the Navy regulations require validation of all threat simulations used in an OT&E event.

FY 2006 Accomplishments:

- Completed MIKE 2, MEIR 2, QUESTION and NOVEMBER II hardware validation reports. Provided reports to the Simulator Validation Working Group (SVWG).
- Initiated INDIA II, MIKE 3, NOVEMBER III and IV, FOXTROT 1 SIP and QUEBEC hardware validation reports.

FY 2007 Plans:

- Continue all efforts of FY 2006 less those noted as completed above.
- Complete INDIA II, MIKE 3, NOVEMBER III and IV, FOXTROT 1 SIP, and QUEBEC hardware validation reports. Provide reports to SVWG.
- Initiate TANGO, NOVEMBER Va and Vb hardware validation reports.

FY 2008 Plans:

- Continue all efforts of FY 2007 less those noted as completed above.
- Complete NOVEMBER Va and submit report to the SVWG.
- Initiate INDIA I, PAPA and KILO hardware validation reports.

FY 2009 Plans:

- Continue all efforts of FY 2008 less those noted as completed above.
- Complete NOVEMBER Vb and TANGO hardware validation reports and submit to the SVWG.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSTEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
ELECTRONIC ATTACK/ELECTRONIC SUPPORT SIMULATIONS	567	571	485	447

Provides improvements and intelligence upgrades to ASCM Digital Models to include fly-out models, NULKA and other off-board decoys including chaff models. Also, supports the maintenance of the Threat Database to provide threat intelligence for the development of T&E digital scenarios.

Operational requirements demand that these digital models and scenarios simulations be available to support testing events.

FY 2006 Accomplishments:

- Continued improvements and intelligence upgrades to ALPHA I, INDIA I, II, III, LIMA, NOVEMBER III, QUEBEC, TANGO, and TANGO II. In all, a total of 9 digital models.
- Initiated and completed analysis of NOVEMBER digital model to resolve discrepancies in production runs.
- Initiated upgrade to cruise missile simulation suite to improve capability to model advanced threats by adding graphical user interface (GUI).

FY 2007 Plans:

- Continue all efforts of FY 2006.

FY 2008 Plans:

- Continue all efforts of FY 2007.

FY 2009 Plans:

- Continue all efforts of FY 2008.
- Complete upgrade to cruise missile simulation suite to improve capability to model advanced threats by adding GUI.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

	FY 2006	FY 2007	FY 2008	FY 2009
PROGRAM MANAGEMENT	330	416	400	465

Provides technical management functions in support of the ENEWS project; engineering and technical support required for the overall efforts of ASCM Simulator and Digital Models development to meet DT/OT testing requirements, development of detailed test resource requirements, and provide an interface between N-912, N-433, Office of Naval Research, and other ENEWS oversight activities. Also, provides technical leadership to the Navy Surface ASCM Threat SVWG.

Needed operational capabilities require increased effort towards these simulators and simulations to be available for testing of critical systems for future deployment. This results in additional management costs.

FY 2006 Accomplishments:

- Continued management of the SVWG.
- Initiated and completed update of FY 2006 Program Management Plan.
- Initiated and completed FY 2006 quarterly reports, earned value management analysis, and progress tracking and analysis.

FY 2007 Plans:

- Continue all efforts of FY 2006.
- Initiate and complete update of FY 2007 Program Management Plan.
- Initiate and complete FY 2007 quarterly reports, earned value management analysis, progress tracking and analysis.

FY 2008 Plans:

- Continue all efforts of FY 2007.
- Initiate and complete update of FY 2008 Program Management Plan.
- Initiate and complete FY 2008 quarterly reports, earned value management analysis, progress tracking and analysis.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

FY 2009 Plans:

- Continue all efforts of FY 2008.
- Initiate and complete update of FY 2009 Program Management Plan.
- Initiate and complete FY 2009 quarterly reports, earned value management analysis, progress tracking and analysis.

	FY 2006	FY 2007	FY 2008	FY 2009
CLASSIFIED PROGRAM	7,584	7,354	7,720	7,838

Details about this program are classified.

FY 2006 Accomplishments:

- Details are of a higher classification.

FY 2007 Plans:

- Details are of a higher classification.

FY 2008 Plans:

- Details are of a higher classification.

FY 2009 Plans:

- Details are of a higher classification.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6						R-1 ITEM NOMENCLATURE 0604258N, TARGET SYSTEMS DEVELOPMENT			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	38.517	47.734	32.376	52.338	41.188	42.487	57.701	56.234	
0609 AERIAL TARGET SYSTEMS DEV	26.007	30.043	13.178	20.215	13.229	9.571	9.635	9.830	
9999 CONGRESSIONAL ADD	.958	2.241							
0610 WPN SYS T&E TRG DEV/PRC	8.594	14.239	17.953	29.762	25.739	31.491	46.619	44.934	
0612 SURFACE TARGETS DEVELOPMENT	2.958	1.211	1.245	2.361	2.220	1.425	1.447	1.470	

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

This program element funds the development and procurement of aerial targets, surface targets, and associated Target Augmentation and Auxiliary Systems (TA/AS) necessary to duplicate or simulate threat characteristics. This requirement is necessary to support weapons systems test and evaluation as well as training. This program element includes the development of: Subsonic Subscale Aerial Target (SSAT), various TA/AS, Supersonic Sea Skimming Target (SSST), Navy Full Scale Aerial Target (FSAT) for conversions, the FSAT follow-on Air Superiority Target (AST), surface targets for test and evaluation, surface towed targets, improved control systems, and an anti-radiation missile target. This program element also includes procurement of TA/AS Vector Scoring.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
FY07 President's Budget:	40.759	45.666	42.532	47.149
FY08 President's Budget:	38.517	47.734	32.376	52.338
Total Adjustments	-2.242	2.068	-10.156	5.189

Summary of Adjustments

Congressional Reductions				
Congressional Rescissions				
Congressional Undistributed Reductions	-0.786	-0.182		
Congressional Increases	0.140	2.250		
Economic Assumptions			0.143	0.546
Miscellaneous Adjustments	-1.596		-10.299	4.643
Subtotal	-2.242	2.068	-10.156	5.189

Schedule: Not Applicable

Technical: Not Applicable

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0604258N, TARGET SYSTEMS DEVELOPMENT			PROJECT NUMBER AND NAME 9999 CONGRESSIONAL ADD				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
9999 CONGRESSIONAL ADD		.958	2.241						
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
Congressional Add.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

0609C	FY 2006	FY 2007	FY 2008	FY 2009
Air Coyote	.958	2.241		
RDT&E Articles Qty				

Air Coyote supersonic sea skimming development.

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E,N / BA-6		0604258N, TARGET SYSTEMS DEVELOPMENT			0609, AERIAL TARGET SYSTEMS DEV				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0609 AERIAL TARGET SYSTEMS DEV		26.007	30.043	13.178	20.215				
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Aerial Target Systems and associated target augmentation and auxiliary systems are developed to test and provide training for Joint Strike and Littoral Warfare Systems required to defend fleet surface and air units in a hostile environment. The threat envelope covered extends from the surface to 100K feet for speeds in the low subsonic range to MACH 4. This project includes:

- Subsonic Subscale Aerial Target (SSAT) development (including pre-planned product improvements to the existing recoverable, remote-controlled subsonic target - upgraded engine, fuselage, swept wing configuration). The SSAT emulates subsonic anti-ship cruise missile threats in support of test & evaluation of major defensive weapon system programs in development and fleet training.
- Supersonic Sea Skimming Target (SSST) development. The SSST emulates supersonic anti-ship cruise missile threats in support of test & evaluation of major defensive weapon system programs in development.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Supersonic Sea Skimming Target	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	4.976	22.229	2.938	5.918
RDT&E Articles Qty				

- Continue GQM-163A Supersonic, Sea-Skimming Target (SSST) upgrades/evolutionary development to keep pace with evolving threat and associated ORD requirements. Efforts include: (1) Continue development of high-diver capability. (2) Continue efforts to establish operational capability at Pacific Missile Range Facility (PMRF). (3) Continue efforts to establish a GQM-163A air-launch capability. (4) Upgrade GQM-163A to support integration of ULQ-21. (5) Initiate booster enhancement study.
- Continue efforts to meet Threat D requirements including analyzing and validating suitable alternatives, modeling and simulation capabilities, performing risk reduction efforts for an acquisition approach and potential competitive solicitation.

Subsonic Aerial Target	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	15.142	1.747	4.044	5.977
RDT&E Articles Qty				

Continue Subsonic Subscale Aerial Target (SSAT) development. To include:

- Product improvements to the existing SSAT (upgraded engine, swept wing configuration and fuselage upgrades) to meet requirements.
- Evaluation of alternate subsonic subscale aerial targets to meet evolving subsonic threat emulation requirements.

Target Augmentation and Auxiliary Systems	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	5.889	6.067	6.196	8.320
RDT&E Articles Qty				

Continue Target Augmentation and Auxiliary Systems (TA/AS) development.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N, TARGET SYSTEMS DEVELOPMENT	PROJECT NUMBER AND NAME 0609, AERIAL TARGET SYSTEMS DEV

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
228000 Aerial Target System	91.636	82.964	66.311	90.067						
612020 Spares and Repair Parts (WPN B.A. 6)	4.273	1.471	1.159	1.228						

D. ACQUISITION STRATEGY:
Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E,N / BA-6		0604258N, TARGET SYSTEMS DEVELOPMENT			0610, WPN SYS T&E TRG DEV/PRC				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0610 WPN SYS T&E TRG DEV/PRC		8.594	14.239	17.953	29.762				
RDT&E Articles Qty		2	4	5	6				

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project provides for the development and procurement of Aerial Targets used exclusively for test and evaluation of Naval Weapons Systems which closely replicate current and projected threats to fleet units in the Joint Strike and the Littoral Warfare environments. This replication must include characteristics related to size, performance envelope, and electromagnetic and infrared signatures. As threats change, changes must be made to keep the targets as threat representative as possible. This is done in response to changes in the requirements of the developers of Naval weapons.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Air Superiority Target	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.817	1.421	1.454	8.429
RDT&E Articles Qty				

The Air Superiority Target (AST) is being developed as the follow-on to the current FSAT. AST will be a supersonic, high altitude, remote-controlled aerial target. This target will have full command and control capability through normal flight maneuvers. Continue support of the follow-on FSAT development

QF-4 Full Scale Aerial Target	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	6.086	10.644	15.530	20.288
RDT&E Articles Qty	2	4	5	6

The Full Scale Aerial Target is a supersonic, high altitude, remote-controlled aerial target. This target has full command and control capability through normal flight maneuvers. Continued program, engineering and logistics support for the Full Scale Aerial Target (FSAT), including Aviation Depot Level Repairables (AVDLR), procurement of kit material and conversion of F-4 aircraft into FSAT targets. The Navy began joint procurement of QF-4 T&E assets with USAF in FY03. FY08 QF-4 procurements deliver FSATs in FY10 supporting JSF, AIM-9X, AMRAAM and SM-6.

TASS Vector Scorer	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	1.691	2.174	.969	1.045
RDT&E Articles Qty				

Target Augmentation and Auxiliary Systems items allow each target to be uniquely configured for specific mission profiles. TAAS configured targets are used for radar acquisition test, electronic countermeasures (jamming) evaluation, infrared measurement/test, radar cross section evaluation, decoy effectiveness, maneuver analysis, electronic warfare, warhead effectiveness and evaluation of fleet tactics, readiness and effectiveness. Continue T&E Target Augmentation and Auxiliary Systems (TA/AS) Vector Scorer development/procurement/support.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
228000 Aerial Target System	91.636	82.964	66.311	90.067						
612020 Spares and Repair Parts (WPN B.A. 6)	4.273	1.471	1.159	1.228						

D. ACQUISITION STRATEGY:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		February 2007
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E N / BA-6	0604258N, TARGET SYSTEMS DEVELOPMENT	0610, WPN SYS T&E TRG DEV/PRC

D. ACQUISITION STRATEGY:

Not
Applicable.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development			PROJECT NUMBER AND NAME 0612/Surface Targets Development			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	2.958	1.211	1.245	2.361				
RDT&E Articles Qty	1			1				
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project develops seaborne targets systems and their related target augmentation systems in support of air-to-surface and surface-to-surface weapons test and evaluation and fleet training.</p>								

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development	PROJECT NUMBER AND NAME 0612/Surface Targets Development		
B. Accomplishments/Planned Program				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.231	0.249	0.272	0.281
RDT&E Articles Quantity				
<ul style="list-style-type: none"> -Continued requirements Study/Analysis of target requirements in response to weapons systems development and upgrades. -Continued testing of real-time surface target scoring systems, including shift to seaborne platform based vector scorer. -Continued command and control upgrade development including LEO uplink/downlink. -Continued Weapons System/Emitter, Target Augmentation System (TAS) upgrade. -Continued Target/Threat Characterization and Validation. 				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	2.727	0.962	0.973	2.080
RDT&E Articles Quantity	1			1
<ul style="list-style-type: none"> -Complete technical effort for 40M MST T&E platform procurement -Integration of on-board control system for 40M MST -Refine performance spec based on prototype FACT results prior to follow-on FY08 procurement -Finalize reports and prepare procurement recommendations to sponsors. -Prepare TDP with updated design package for FY09 procurement of 40M MST platform -Conduct testing of improved EO/IR augmentation on powered platforms -Adapt augmentation for use on tow platforms to enhance powered vessel survivability -Development of performance platforms for advanced sea-state testing 				

CLASSIFICATION:											
EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development				PROJECT NUMBER AND NAME 0612/Surface Targets Development				
C. OTHER PROGRAM FUNDING SUMMARY:											
		<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	To Complete	Total Cost
	OPN Line 545500 ASW Range Spt Equipment	7.136	7.159	8.935	9.325						
D. ACQUISITION STRATEGY:											
Not applicable											

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE			
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6						0604759N, MAJOR T&E INVESTMENT			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	39.746	75.908	37.614	44.602	48.135	50.350	51.157	52.248	
2195 T & E INVESTMENT	38.366	67.092	37.614	44.602	48.135	50.350	51.157	52.248	
9999 CONGRESSIONAL ADDS	1.380	8.816							

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project improves visibility and commonality of Test and Evaluation (T&E) resources across the Service for Major T&E investment funding. These funds correct major deficiencies, improve T&E capabilities, and increase T&E support effectiveness. The T&E Investment project provides improved test capabilities at the following test facilities: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTECE), Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division Keyport (NAVUNSEAWARCENDIV Keyport), Keyport, WA; the Sea Range, Land Range, Electronic Combat Range, Targets, Ordnance T&E Facility, Test Wing Pacific, and the Air Vehicle Modification and Instrumentation facility located at the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point Mugu, CA and China Lake, CA; and the Atlantic Test Range, Air Combat Environment T&E Facility, Electromagnetic Environmental Effects, Test Wing Atlantic, Targets, and the Propulsion Systems Evaluation Facility (PSEF) located at the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD; and the test capabilities located at the Pacific Missile Range Facility, Kauai, HI.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
FY 2007 President's Budget:	40.486	39.750	41.938	44.053
FY 2008/2009 President's Budget:	39.746	75.908	37.614	44.602
Total Adjustments	-0.740	36.158	-4.324	0.549
Summary of Adjustments				
Congressional Adjustments	0.010	8.666		
Economic Assumptions			-0.024	1.015
Program Adjustments	-0.750		-4.300	-0.466
Spectrum Relocation		27.492		
Subtotal	-0.740	36.158	-4.324	0.549

Schedule:

Project Unit 2195. Not Applicable.
 Project Unit 9999. Not Applicable.

Technical:

Project Unit 2195. Not Applicable.
 Project Unit 9999. Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6			PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT			PROJECT NUMBER AND NAME 2195, T & E INVESTMENT				
COST (\$ in Millions)			FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2195 T & E INVESTMENT			38.366	67.092	37.614	44.602	48.135	50.350	51.157	52.248
RDT&E Articles Qty			Not Applicable.							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project improves visibility and commonality of Test and Evaluation (T&E) resources across the Service for Major T&E investment funding. These funds correct major deficiencies, improve T&E capabilities, and increase T&E support effectiveness. The T&E Investment project provides improved test capabilities at the following test facilities: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTE C), Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division Keyport (NAVUNSEAWARCENDIV Keyport), Keyport, WA; the Sea Range, Land Range, Electronic Combat Range, Targets, Ordnance T&E Facility, Test Wing Pacific, and the Air Vehicle Modification and Instrumentation facility located at the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point Mugu, CA and China Lake, CA; and the Atlantic Test Range, Air Combat Environment T&E Facility, Electromagnetic Environmental Effects, Test Wing Atlantic, Targets, and the Propulsion Systems Evaluation Facility (PSEF) located at the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD and the test capabilities located at the Pacific Missile Range Facility, Kauai, HI.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Undersea Range Investments	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	6.178	4.050	7.794	12.923
RDT&E Articles Qty				

Undersea Range Investments - This effort funds the modernization, upgrades, and new test capabilities required at the Navy's Major Range Test Facility Base (MRTFB) undersea ranges (Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTE C), Andros Island, Bahamas; the Nanoose and Dabob ranges of the Naval Undersea Warfare Center Division Keyport (NAVUNSEAWARCENDIV Keyport), Keyport, WA.

AUTE C - The development of new range control center software and modernized hardware; the installation of improved lightning protection and grounding systems at the AUTE C main sites and downrange sites one and two; the replacement and extension of the AUTE C range classified and unclassified local area networks; the installation and integration a hydrophone string to regain 90 square nautical miles of the AUTE C deep water range; the modernization of the deep water hydrophone acoustic signal processors; the modernization of communication links from AUTE C's main site to its downrange sites two, three and four; the modernization and upgrade of voice and data communications links to submarines on the range; the development of new range post-processing software and modernized hardware; the upgrade of shallow water range voice communications and procurement/integration of data communications links; and the upgrade of aircraft sonobuoy simulation/stimulation radio frequency emission capability.

Nanoose and Dabob - The procurement and integration of additional hydrophone arrays; the addition of broadband capable bottom mounted targets to the Nanoose and Dabob ranges; the upgrade and addition of countermeasure threat emulator units; the modernization of acoustic acquisition and processing systems; the replacement of acoustic data acquisition recorders; and the upgrade of Nanoose and Dabob range microwave communications

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2007

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME
RDT&E,N / BA-6		0604759N, MAJOR T&E INVESTMENT				2195, T & E INVESTMENT
Open Air Range Investments	FY 2006	FY 2007	FY 2008	FY 2009		
Accomplishments / Effort / Sub-total Cost	25.128	28.978	25.871	23.747		
RDT&E Articles Qty						

Open Air Range Investments - This effort funds the modernization and upgrades of existing capabilities and the development of new test capabilities required at the MRTFB open air ranges :

Sea Range - The modernization of the fifth tracking radar; the development of target launch, airborne telemetry, optics, flight termination capabilities for the range support aircraft; the upgrade of video capabilities; the replacement of Very High Frequency (VHF), Ultra High Frequency (UHF), and High Frequency (HF) radio transmitters; the modernization of the mobile radio communications system; the modernization of range timing and sensor interface; the addition of enhanced flight termination system; the modernization of the telemetry antenna systems; the modernization of the post flight analysis system; the upgrade of telemetry instrumentation recorders; the modernization of Global Positional System (GPS) tracking systems; the replacement of Link-16 tactical data link terminal; development of a Range Condition Assessment (RCA) report; the development of a Range Capabilities Master Plan (RCMP); the replacement of fiber terminal equipment to upgrade communications links from San Nicolas Island to the mainland; the procurement of a doppler radar system; and the modernization of sea surface surveillance radars.

Land Range - The upgrade of video capabilities; the replacement of VHF and UHF radio transmitters; the modernization of the mobile radio communications system; the modernization of range timing and sensor interface; the addition of enhanced flight termination system; the modernization of the telemetry antenna systems; the modernization of the post flight analysis system; the upgrade of the Infra-Red camera capability; the upgrade of telemetry instrumentation recorders; the modernization of Global Positional System (GPS) tracking systems; the replacement of Link-16 tactical data link terminal; the development of a Range Condition Assessment (RCA) report; and the development of a Range Capabilities Master Plan (RCMP).

Electronic Combat Range -The upgrade of video capabilities; the replacement of VHF and UHF radio transmitters; the modernization of the mobile radio communications system; the modernization of range timing and threat system interface; the modernization of the Post Test Data Warehouse system; the modernization of two tracking radars; the modernization of the telemetry processing system; the replacement and upgrade of telemetry instrumentation recorders; the modernization of Global Positional System (GPS) tracking systems; the upgrade of voice and data communications links; development of a Range Condition Assessment (RCA) report; the development of a Range Capabilities Master Plan (RCMP);

Air Vehicle Modification and Instrumentation - The procurement of solid state recorders; the procurement and integration of Advanced Range Telemetry (ARTM) spectrum efficient transmission and reception equipment; and the procurement of aircraft machining equipment.

Atlantic Test Range - The modernization of the radar cross section emitters pedestals; the modernization and addition of telemetry antennas; the upgrade of the Infra-Red signature measurement system; the replacement and upgrade of telemetry instrumentation recorders; the modernization of Global Positional System (GPS) tracking systems; the development and integration of new range computation and control system the replacement of a microwave voice, data and video communications link from the Atlantic Test Range to the Wallops facility ; the modernization and upgrade of the Multiple Target Tracking Radar ("MIR"); the development of a Range Condition Assessment (RCA) report; and the development of a Range Capabilities Master Plan (RCMP);

APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT				PROJECT NUMBER AND NAME 2195, T & E INVESTMENT	
Test Facilities Investments	FY 2006	FY 2007	FY 2008	FY 2009			
Accomplishments / Effort / Sub-total Cost	7.060	6.572	3.949	7.932			
RDT&E Articles Qty							

Test Facilities Investments - This effort funds the modernization and upgrades of existing capabilities and the development of new test capabilities required at the MRTFB test facilities (Air Combat Environment Test and Evaluation Facility (ACETEF), Electromagnetic Environmental Effects (E3), Propulsion Systems Evaluation Facility (PSEF), Ordnance T&E Facility).

ACETEF - The development and integration of an advanced radar environment stimulator; the procurement of fiber channel bus monitoring and stimulation capability; the modernization of threat simulation transmitters; the modernization of manned flight simulator computer systems and software; the upgrade of identification friend/foe (IFF) test set capability to include Mode 5 and Mode S simulations; the development of a simulation environment visualization and debriefing system and software; the procurement of new Internet Protocol Version 6 (IPV6) network routing and security boundary equipment; the development, installation, and certification of carts to amplify and radiate high power radio frequency electronic warfare simulation signals in the anechoic chambers; the upgrade of manned flight simulator cockpit simulation stations' image generators, projectors, projection screens and software.

E3 - The modernization of the tempest certification systems; the modernization of Electromagnetic Environmental Effects (E3) laboratory test equipment; and the procurement and integration of wide pulse microwave source E3 generating systems.

PSEF - The upgrade of the Helicopter Transmission Test Facility (HTTF) to support greater horsepower/torque and provide quicker setup time; and the upgrade of the drive turbines, thermal gradient system, crack detection system, data acquisition and command and control systems of the Rotor Spin Facility.

Ordnance T&E - The procurement and integration of camera pads, power lines, and data acquisition and firing lines as part of developing an ordnance test arena at the Desert Duck area, and upgrading the CT-1, CT-4 and Burro Canyon sites; site preparation of the Desert Duck site; and installation of a secure miniature magazine in the Skytop complex.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT				PROJECT NUMBER AND NAME 2195, T & E INVESTMENT	
Spectrum Relocation	FY 2006	FY 2007	FY 2008	FY 2009			
Accomplishments / Effort / Sub-total Cost		27.492					
RDT&E Articles Qty							

Spectrum Relocation - This effort funds the modification or replacement of range instrumentation in order to vacate the 1710-1755 magahertz band recently auctioned off for commercial use.

Patuxent River, MD - Procurement and integration of transmitter and receiver systems for all land and airborne video, telemetry, and microwave systems.

Point Mugu and China lake, CA - Procurement and integration of transmitter and receiver systems for all land and airborne video and telemetry systems.

Keyport, WA - Procurement and integration of transmitter and receiver systems for the land based microwave systems.

Panama City, FL - Procurement and integration of transmitter and receiver systems for the land based video and telemetry systems.

Kittery, ME - Procurement and integration of transmitter and receiver systems for the land based microwave systems.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
Not Applicable										

D. ACQUISITION STRATEGY: Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E,N / BA-6		0604759N, MAJOR T&E INVESTMENT			9999, CONGRESSIONAL ADDS				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost		1.380	8.816						
RDT&E Articles Qty		Not Applicable.							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Congressional Adds.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

2195C, Upgrade Range Instrumentation to Support Network Centric Operations	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		2.590		
RDT&E Articles Qty				

This project will upgrade the tactical data links, communication networks, tracking systems, and electronic warfare system at the Atlantic Test Range to provide more realistic test and training for the Navy's warfighters and their systems.

9776N, Integrating Navy RDT&E and Training Resources	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	1.380			
RDT&E Articles Qty				

This project augments and improves existing Test and Evaluation instrumentation located at Naval Warfare Center Aircraft Division, Patuxent River, MD in order to better support fleet training requirements. The project will acquire and upgrade both mobile capabilities and fixed capabilities at the Atlantic Test Range including: the upgrade of portable surface threat emitter capabilities and those installed aboard Training Support Vessel (TSV) Prevail; the development of new prototype plastic model molds (Stryker, HUMVEE weapons (Avenger and 50 Cal), and SA-5 Missile Shape) with multi-spectral cue capabilities; the replacement of the remote emitter system pedestal at Point Lookout; the procurement of a threat representative XM-18 Portable Air Defense System Integrated Threat Simulator/Stimulator (MANPADS, MITSS); the procurement of a high power L-band traveling wave tube transmitter; and a radio frequency environment monitor/measurement system and an emitter positioning remote control system for the Fleet Mobile Sea Range (MSR) Vessel.

9A60N, Low Cost Coyote Ramjet Demonstration	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		.996		
RDT&E Articles Qty				

Research design options to lower the production cost for the Coyote Ramjet Engine.

9A61N, Network Expansion & Integration of Navy/NASA RDT&E Ranges and Facilities	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		3.238		
RDT&E Articles Qty				

This project designs and develops (including environmental permits) fiber optic replacement of some of the existing microwave links between NASA instrumentation and the Atlantic Test Range.

9A62N, Network Expansion of RDT&E Ranges	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		1.992		
RDT&E Articles Qty				

This project modernizes and extends existing microwave and fiber optic networks between the Atlantic Test Range, Pt. Lookout, St. Inigoes (Webster Field), and other test facilities on Naval Center Aircraft Division.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
Not Applicable										

D. ACQUISITION STRATEGY: Not applicable

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE			
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6						0605152N, STUDIES AND ANALYSIS SUPPORT - NAVY			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	8.712	7.066	7.516	8.139	8.722	9.240	9.397	9.559	
0133/NATL ACAD SCI/STUD BRD	1.803	1.785	1.691	1.646	1.770	1.751	1.768	1.786	
2092 NAVAL WARFARE STUDIES	3.933	5.002	5.537	6.200	6.653	7.183	7.318	7.455	
2097 MANPOWER PERSONNEL & TRAINING	.287	.279	.288	.293	.299	.306	.311	.318	
9999 CONGRESSIONAL ADD	2.689								

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides analytical support to the Secretary of the Navy and the Chief of Naval Operations as a basis for major policy, planning and acquisition program execution decisions. It supports research and development strategy development and planning. It supports studies in the areas of manpower, personnel, training, and aviation. It also develops analytical tools for evaluating effectiveness of U.S. weapons against potential foreign threat ships and submarines.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget:	8.855	7.093	7.693	8.277
Current BES:	8.712	7.066	7.516	8.139
Total Adjustments	-0.143	-0.027	-0.177	-0.138

Summary of Adjustments

Congressional Reductions				
Congressional Rescissions				
Congressional Undistributed Reductions	-0.120	-0.027		
Congressional Increases	0.010			
Economic Assumptions			0.045	0.126
Miscellaneous Adjustments	-0.033		-0.222	-0.264
Subtotal	-0.143	-0.027	-0.177	-0.138

Schedule: N/A

Technical: N/A

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		0605152N / STUDIES AND ANALYSIS SUPPORT, NAVY			PROJECT NUMBER AND NAME 0133 NATIONAL ACAD SCI/STUD BOARD			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0133 NATIONAL ACAD SCI/STUD BOARD	1.803	1.785	1.691	1.646	1.770	1.751	1.768	1.786
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project supports the core program for the Naval Studies Board. As agreed upon between the Chief of Naval Operations (CNO) and the President of the National Academy of Sciences and with appropriate attention to the influence of the domestic economy, national objectives, social imperatives and anticipated military requirement, the Naval Studies Board will conduct and report upon surveys, investigations, and analyses in the field of scientific research and development applicable to the operation and function of the Navy. Reports consist of a briefing to the Assistant Secretary of the Navy (Research Development and Acquisition) (ASN (RD&A)) and the CNO and staff, and written technical reports.

Performance Metrics:

Conduct and report upon surveys, investigations, and analyses in the field of scientific research and development applicable to the operations and function of the Navy in a timely manner.

R-1 SHOPPING LIST - Item No. 144

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	-------------------------------

PROGRAM ELEMENT NUMBER AND NAME 0605152N / STUDIES AND ANALYSIS SUPPORT, NAVY	PROJECT NUMBER AND NAME 0133 NATIONAL ACAD SCI/STUD BOARD
----------------------------------------------------------------------------------	--------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	1.803	1.785	1.691	1.646

FY 2006 ACCOMPLISHMENTS:

- Continued research efforts and investigations in areas of interest to the Navy.
- Continued to support annual Navy authorized activities of importance, such as the Weinblum Memorial Lecture Series.
- Continued, through the Naval Studies Board, to work on the two studies initiated in FY 2005: The Role of Naval Forces in the Global War on Terrorism and Distributed Remote Sensing for Naval Undersea Warfare. These studies will be completed in September 2006.
- Initiated new studies, selected by the CNO during FY06. The studies identified are: (1) 1000-ship Navy - A Distributed and Global Maritime Network and (2) Manpower and Personnel Needs for a Transformed Naval Force.

FY 2007 PLANS:

- Complete studies for 1000-ship Navy - A Distributed and Global Maritime Network and Manpower and Personnel Needs for a Transformed Naval Force.
- Continue research efforts and investigations in areas of interest to the Navy.
- Continue to support annual Navy authorized activities of importance, such as the Weinblum Memorial Lecture Series.
- Initiate new studies to be selected by the CNO during FY07.

FY 2008 PLANS:

- Continue research efforts and investigations in areas of interest to the Navy.
- Continue to support annual Navy authorized activities of importance, such as the Weinblum Memorial Lecture Series.
- Initiate new studies to be selected by the CNO during FY08

FY 2009 PLANS:

- Continue research efforts and investigations in areas of interest to the Navy.
- Continue to support annual Navy authorized activities of importance, such as the Weinblum Memorial Lecture Series.
- Initiate new studies to be selected by the CNO during FY09.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
PROGRAM ELEMENT NUMBER AND NAME 0605152N / STUDIES AND ANALYSIS SUPPORT, NAVY	PROJECT NUMBER AND NAME 0133 NATIONAL ACAD SCI/STUD BOARD	
<p>D. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Navy Related RDT&E: Not applicable. Non-Navy Related RDT&E: Not applicable.</p> <p>E. ACQUISITION STRATEGY:</p> <p>Not applicable.</p>		

EXHIBIT R-2a, RDT&E Project Justification						DATE:				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E,N / BA-6			0605152N, STUDIES AND ANALYSIS SUPPORT - NAVY			2092, NAVAL WARFARE STUDIES				
COST (\$ in Millions)			FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2092 NAVAL WARFARE STUDIES			3.933	5.002	5.537	6.200	6.653	7.183	7.318	7.455
RDT&E Articles Qty										

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports detailed mission, capability and technical analysis of future naval warfighting requirements. This work provides the analytic basis for integration and prioritization of overall military capability requirements and acquisition programs in support of executing the Naval Capability Development Process and development/delivery of MCP, NCP and ISCP briefs for CNO. This project replaces warfare analysis efforts (other than system-level Analyses of Alternatives) previously funded separately by all sponsors within N6/N7.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Naval Warfighting Capability Assessments	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	3.933	5.002	5.537	6.200
RDT&E Articles Qty				

This project supports future Naval warfighting capability assessments, including cost-to-capability assessments; mission level Modeling & Simulation (M&S); analysis integration across all warfare areas; and assessments of legacy and future Programs of Record contribution to future warfighting requirements. These efforts include support for the alignment of Science & Technology (S&T) and Future Naval Capability (FNC) programs to future warfighting capability gaps and integration of Naval warfighting requirements into the Joint Capability Integration and Development System (JCIDS) process. This work provides the analytic underpinning for N6/N7 investment recommendations to CNO; serves as the analytic basis to integrate and prioritize overall warfighting capability requirements and acquisition programs to support the Naval Capability Development Process; and supports the development of Mission Capabilities Packages (MCPs), Naval Capability Packages (NCPs), Integrated Strategic Capability Plans (ISCPs), and a capabilities-based and balanced Integrated Sponsor's Program Proposals (ISPPs). This project replaces warfare analysis efforts (other than system-level Analyses of Alternatives) previously funded separately by all sponsors within N6/N7.

C. OTHER PROGRAM FUNDING SUMMARY:

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
Not Applicable										

D. ACQUISITION STRATEGY: Not Applicable

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605152N, Studies and Analysis Support, Navy				PROJECT NUMBER AND NAME 2097/Manpower, Personnel, and Training			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2097/Manpower, Personnel, and Training	0.287	0.279	0.288	0.293	0.299	0.306	0.311	0.318
RDT&E Articles Qty	3	4	4	3	4	4	4	4

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The Chief of Naval Personnel has a continuing need for studies and analyses of manpower and personnel (M&P) policies and programs and critical M&P issues that have Navy-wide implications. This project provides an essential management tool to: (a) assess the effectiveness of existing M&P policies and programs; (b) identify needs for new policies and programs; (c) determine the required manpower and training mix relative to changing demographic, societal and legislative/regulatory actions, and to evolving strategic and geopolitical factors; (d) study the impact of M&P programs on Navy accession, attrition, retention, and performance; and, to (e) develop, validate and/or refine a broad range of M&P forecasting models. The program permits Navy to more effectively utilize Research and Development expertise to respond to emergent M&P issues on a continuing basis.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E operational systems development because it encompasses engineering and development of new end-items prior to production approval decision.

R-1 SHOPPIN LIST - Item No.144

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605152N Studies and Analysis Support - Navy	PROJECT NUMBER AND NAME 2097/Manpower, Personnel, and Training

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.287	0.279	0.288	0.293
RDT&E Articles Quantity	3	4	4	3

(U) FY 2006 ACCOMPLISHMENTS:

- (U) (\$184K) Tested and evaluated Enlisted and Officer Dashboards
- (U) (\$55K) Evaluated Return on investment for Immediate Graduate Education and Voluntary Graduate Education Programs
- (U) (\$52K) Evaluated Web application for data analysis and visulaization of AFCT scores

(U) FY 2007 ACCOMPLISHMENTS:

- (U) (\$75K) Assessed Return on Investment (ROI) for Assignment Incentive Pay (AIP) programs/pilots
- (U) (\$80K) Assessed impact of Individual Augmentation on enlisted and officer retention
- (U) (\$64K) Assessed Return on Investment (ROI) of JPME Phase I programs (NWC, NPS, Distance Learning, Seminar)
- (U) (\$70K) Assessed the potential use and determine appropriate areas to employ Smart Card/CAC Technology.

(U) FY 2008 PLAN:

- (U) (\$75K) Assess Return on Investment (ROI) and workload impacts of Intregrated Learning Environment (ILE)
- (U) (\$75K) Assess Return on Investment (ROI) of Officer Bonus Programs - ACCP and SWOCP
- (U) (\$63K) Evaluate and recommend alternate enlisted and officer bonus programs and schema
- (U) (\$75K) Assess Return on Investment (ROI) for CIVSUB of Headquarters Officer billets from 2000-2007

(U) FY 2009 PLAN:

- (U) (\$128K) Conduct a cost-benefit analysis of NPS vs. CIVINS for graduate degrees
- (U) (\$85K) Assess effectiveness of Active and Reserve Recruiting merger
- (U) (\$80K) Assess manpower/personnel growth of DDG-51 and CG-47 mid-life upgrade programs

R-1 SHOPPING LIST - Item No. 144

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2007				
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N / BA6		0605152N, STUDIES AND ANALYSIS SUPPORT, NAVY			9999 Congressional Add				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
9999 Congressional Add		2.689							
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Congressional Add

B. Accomplishments/Planned Program

9784	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	2.689			
RDT&E Articles Quantity				

Warfare Analysis Environment

Funding for the Warfare Analysis Environment (WAE) is provided for development of a composite of specific stand-alone tools, and a composable federation of certain models required to assess naval aviation capabilities across a broad spectrum of naval and joint warfare areas. The intent of developing the WAE is to retain naval aviation platform and system program-specific validated performance data for engagement, mission and campaign level analysis; ensure traceability of data and calibration of models through the modeling hierarchy from engineering to engagement to mission and to campaign; support programs in identifying gaps and prioritize their investment strategies in the context of Naval Aviation Enterprise (NAE) and in the joint warfighting construct; establish baseline mission and engagement level modeling capabilities consistent with N81 campaign modeling of the 3 Major Campaign Operation (MCO) scenarios, Global War on Terrorism and Homeland Defense; and provide a single, shared collaborative environment for quick-turn NAE related analytic questions.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605154N
PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
Total PE	46,798	47,439	49,360	45,867	47,609	48,407	48,971	49,590
0031 MARINE CORPS OPERATIONS ANALYSIS GROUP (MCOAG)	6,188	7,041	7,845	7,927	8,055	8,135	8,313	8,544
0148 CENTER FOR NAVAL ANALYSES, NAVY	40,610	40,398	41,515	37,940	39,554	40,272	40,658	41,046

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Center for Naval Analyses (CNA) is the Department of the Navy's (DoN) only Federally Funded Research and Development Center (FFRDC). CNA provides independent, objective, and expert analyses based on its unique access to sensitive data and hands-on exposure to fleet operations gained through its world-wide field program. CNA's research program is centrally funded by this program element and is primarily concentrated along one Marine Corps category and twelve Navy categories of study called product areas. These product areas are structured to enhance CNA's focus of research and analysis upon the major present and future needs and issues of the Navy and the Marine Corps. Because of rapid advances in technology, changes in the fleet, the increasing complexity of weapon systems, and reductions in manpower, force structure, budgets, the current security environment, and Department of Defense (DoD) transformation, the Navy and Marine Corps have a greater need for analyses that are sophisticated, relevant, and timely. CNA is highly qualified to meet that need.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605154N
PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2007 President's Budget Submission	48,024	48,900	50,056	51,057
Congressional Adjustment	43	-1,461	0	0
Execution Adjustments	-565	0	0	0
Functional Realignment for OPNAV Program Support Costs	-704	0	0	0
Program Adjustments	0	0	-215	-3,728
Program Realignment	0	0	-481	-1,462
FY 2008/FY 2009 President's Budget Submission	46,798	47,439	49,360	45,867

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

E. PERFORMANCE METRICS:

The CNA is reviewed throughout the research year on several different levels to ensure that research produced is not duplicated elsewhere. The primary (and most effective) method of review for duplication is the Contracting Officer's Technical Representative (COTR) review and approval of each and every project proposal submitted by CNA. This method is highly effective in providing the necessary oversight to ensure that duplication of effort does not occur. The Marine Corps Studies System (MCSS) maintains a comprehensive listing of all CNA studies performed for the USMC. The MCSS ensures there are no duplicate analytical efforts within the USMC. Additionally, the Studies and Analysis Division of Marine Corps Combat Development Command (MCCDC) provides analytical review of all CNA products for the USMC and integrates the results and recommendations into a quarterly newsletter and an annual plan for research and analysis. Other evaluation processes are as follows:

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605154N
PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

- A) DoN Contract Status Meetings - As part of the CNA oversight process, the ONR Contracting Officer chairs a monthly meeting with the COTR, the USMC, and members of the CNA Business Support Group to provide guidance regarding contract management. Issues range from reviewing the Defense Technical Information Center (DTIC) database requirements to emphasize the contractual requirement that all ongoing research be submitted to DTIC to ensure against duplication to reviewing CNA's cost effectiveness and efficiency.
- B) Award Fee Evaluation Process - As required by CNA's contract with DoN, CNA is evaluated on a semi-annual basis by the government throughout the entire five-year performance period of Contract N00014-05-D-0500. Over 200 sponsors of CNA deliverables provide input regarding CNA's value to their respective organizations. CNA's support to DoN leadership and management, their timeliness and quality of research, as well as their cost effectiveness and efficiency are evaluated. CNA's overall performance rating is the primary basis for determining the amount, if any, of the available award fee earned by CNA.
- C) Two-Star Flag Officers and VCNO Corporate Board Meetings. DoN Two- and Three-Star Flag officers and their equivalent civilian counterparts meet several times a year to review the current fiscal year's research and provide guidance to CNA regarding their future research for DoN. These high-level meetings are essential to provide CNA with DoN's guidance to ensure that the research conducted is of the greatest value to DoN. The meetings also serve as the catalyst for the formation of the CNA Annual Plan, CNA's roadmap for research during the upcoming fiscal year. The CNA Annual Plan is then submitted to the VCNO Corporate Board for their final review and acceptance.
- D) CNA Comprehensive Review - Prior to contract renewal, CNA, as a FFRDC, must be evaluated to ensure that the DoN wants to renew their contract for an additional five-years. DoN recently completed an exhaustive review of sponsors' technical needs and mission requirements; DoN's consideration of alternative sources; CNA's efficiency and effectiveness; CNA's management and cost effectiveness, as well as the establishment criteria and sponsorship agreement. The CNA Comprehensive Review was approved by ASN (RDA) and accepted by OSD (AT&L).

UNCLASSIFIED

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605154N PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES
 PROJECT NUMBER: 0031 PROJECT TITLE: MARINE CORPS OPERATIONS ANALYSIS GROUP (MCOAG)

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0031 MARINE CORPS OPERATIONS ANALYSIS GROUP (MCOAG)	6,188	7,041	7,845	7,927	8,055	8,135	8,313	8,544

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the Marine Corps portion of the DoN CNA Research Program, and is managed as an element of the Marine Corps Studies System. This program provides the Marine Corps with independent and objective research and analysis of specific issues/topics appropriately performed by a FFRDC. As a result of the findings and recommendations of the Fiscal Year 1997 Defense Science Board, the Marine Corps refocused the type of support CNA provides. The CNA maintains a varied number of field representatives for the Operational Forces Commanders and eight (8) program areas for CNA to establish and maintain. The program areas are linked to the Marine Corps Advocacy (prepotency), which are: (1) Policy and Operations; (2) Systems and Tactics; (3) Research, Development and Acquisition; (4) Infrastructure and Readiness; (5) Manpower, Medical and Training; (6) Resources, Planning and Assessments; (7) Capabilities, Force Structure and Systems and (8) Intelligence, Surveillance and Reconnaissance. Scientific Analyst support provides six scientific analysts for the following six focus areas: Deputy Commandant (DC), Plans, Policies and Operations; DC Aviation; DC Installation and Logistics; DC Programs and Resources; DC Manpower Reserve Affairs; and Director, Manpower Plans (MP) - Manpower and Reserve Affairs (M&RA). The program continues analytical support for field exercises, Ad Hoc and Quick Response study requirements.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
MARINE CORPS OPERATIONS AND ANALYSIS GROUP	6,188	7,041	7,845	7,927

FY 2006 Accomplishments:

- Initiated and completed the following efforts from the FY06 Marine Corps Studies System Master Plan (MCSSMP): Military-Civilian Billet Conversion/Appropriate Ratio, Marine Logistics Group (MLG) Standardization and Analysis, Marine Forces North (MARFORNORTH) Roles, Missions and Organizations, Adapting Roles for Future

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT NUMBER: 0031

PROJECT TITLE: MARINE CORPS OPERATIONS ANALYSIS GROUP (MCOAG)

Marine Expeditionary Units (MEU), Effect of Operational Tempo on Reserve Retention and Marine Forces North (MFN) Roles and Missions.

- Completed the following efforts: (1) USMC in Global War on Terrorism (GWOT)/Distribution Operation, (2) Review of Officer Manpower System and (3) Medical and Dental Manpower Requirements.
- Provided six scientific analysts for direct analytical support to Marine Corps Headquarters staff elements: Deputy Commandant Marine Corps (DCMC) Plans, Policies, and Operations; DCMC Installations and Logistics; DCMC Manpower and Reserve Affairs; DCMC Aviation; DCMC Programs and Resources and Commanding General (CG), Marine Corps Combat Development Command.
- Provided six Field Representatives for direct analytical support to the Commander Marine Forces Pacific (COMMARFORPAC), Commander Marine Forces Atlantic (COMMARFORLANT), Commanding General I Marine Expeditionary Force (CG I MEF), Commanding General II Marine Corps Expeditionary Force (CG II MEF), Commanding General III Marine Expeditionary Force (CG III MEF), and Commanding General, Marine Air Weapons Training Squadron (MAWTS).
- Provided analysis support to operating forces exercises, ad hoc support for immediate analytical requirements, and other support functions which included: general concept development, quick response studies, CNA self-initiated analysis efforts, administrative support, liaison, travel, and contract award fee.

FY 2007 Plans:

- Provide formal study and analysis support to the operating forces and headquarters elements included in the annual MCSSMP.
- Initiate the following study and analysis projects approved in FY07 MCSSMP: Stress on the Force - Assistant Commandant of the Marine Corps (ACMC), Headquarters Alignment (ACMC), USMC Force Posture in the Pacific (ADMC), Seabasing (ACMC), Functional Overlap - Marine Forces (MARFORs), Marine Expeditionary Forces (MEFs), and Military Sealift Commands (MSCs), Marine Expeditionary Unit/Marine Special Operations Capable (MEU/MSOC) Interoperability, Analysis of Career Paths for Special Ops Marines, Analysis of Entry Level Training, Marine Air Ground Task Force (MAGTF) Electronic Warfare Requirements, Distributed Operations (DO) Implementation Analysis, and Next Generation Enterprise Network/Navy Marine Corps Intranet (NGEN/NMCI) Follow on Requirements.
- Continue all efforts of FY06 less those noted as completed above.

FY 2008 Plans:

- Initiate high priority study and analysis projects approved in FY08 MCSSMP.
- Continue all efforts of FY07 less those noted as complete above.

R1 Line Item 145

Page 5 of 8

UNCLASSIFIED

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROJECT NUMBER: 0031

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT TITLE: MARINE CORPS OPERATIONS ANALYSIS GROUP (MCOAG)

FY 2009 Plans:

- Initiate high priority study and analysis projects approved in FY09 MCSSMP.
- Continue all efforts of FY08 less those noted as complete above.

C. OTHER PROGRAM FUNDING SUMMARY:

NAVY RELATED RDT&E:

PE 0605873M (Marine Corps Program Wide Support)

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT NUMBER: 0148

PROJECT TITLE: CENTER FOR NAVAL ANALYSES, NAVY

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0148 CENTER FOR NAVAL ANALYSES, NAVY	40,610	40,398	41,515	37,940	39,554	40,272	40,658	41,046

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the Navy's portion of the CNA Research Program, which is primarily concentrated along twelve Navy categories of study called product areas. These product areas include the following: 1) Policy and Operations; 2) Resources, Planning, and Assessments; 3) Research, Development, and Acquisition; 4) Infrastructure and Readiness; 5) Manpower, Medical, and Training; 6) Systems and Tactics; 7) Capabilities, Force Structure, and Systems; 8) Intelligence, Surveillance, and Reconnaissance; 9) Navy Field Program; 10) Navy Scientific Analyst Program; 11) Navy Quick Response Projects; and (12) CNA Initiated Projects. CNA's analyses have resulted in substantial improvements in force structure, fleet effectiveness, and significant cost avoidance.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
CENTER FOR NAVAL ANALYSES, NAVY	40,610	40,398	41,515	37,940

FY 2006 Accomplishments:

- Continued to address issues of major importance to Navy leadership in the above research areas. CNA's Research Program will be continually updated to support the Navy efficiently and effectively. Support for the CNA field program, which assigns analysts to thirty four locations around the world, including at sea, will continue to comprise approximately 20% of the funding.

FY 2007 Plans:

- Continue all efforts of FY 2006.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROJECT NUMBER: 0148

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT TITLE: CENTER FOR NAVAL ANALYSES, NAVY

FY 2008 Plans:

- Continue all efforts of FY 2007.

FY 2009 Plans:

- Continue all efforts of FY 2008.

C. OTHER PROGRAM FUNDING SUMMARY:

NAVY RELATED RDT&E:

PE 0605152N (Studies and Analysis Support-Navy)

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605155N
PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT AND EVALUATION

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
Total PE	2,151	2,585	0	0	0	0	0	0
0151 INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION	2,151	2,585	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element develops and updates tactics, techniques, and procedures (TTP) for new and existing weapons systems that directly improve the fleet's use of the Navy's weapon systems. Due to the evolving force structures and changing threat scenarios of 21st century warfare, the Navy faces a growing and continuous need to update fleet operational tactics. Through technical and analytical evaluations of fielded weapon systems, the Fleet Tactical Development and Evaluation (TAC D&E) Program funds the development and updating of fleet tactical procedures to better employ current and new weapon systems.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605155N
PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT AND EVALUATION

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2007 President's Budget Submission	2,233	2,595	2,689	2,747
Congressional Undistributed Reductions/Rescissions	0	-10	0	0
Functional Realignment for OPNAV Program Support Costs	-41	0	0	0
Program Adjustments	0	0	-2,689	-2,747
SBIR Assessment	-41	0	0	0
FY 2008/FY 2009 President's Budget Submission	2,151	2,585	0	0

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

E. PERFORMANCE METRICS:

Tactical Development and Evaluation Projects are submitted by fleet commands and Warfare Centers of Excellence to the Numbered Fleet Commanders on an annual basis. The Numbered Fleets vet and prioritize shortfalls for Tactical Memorandum (TACMEMO) development. Once prioritized by the Expeditionary Strike Group (ESG), Navy Warfare Development Command (NWDC) competes each TAC D&E project through qualified subject matter expert (SME) contractors or Navy laboratories using performance based contracting. This process ensures the best value by targeting industry SMEs for short-term contracts while minimizing unnecessary or duplicative government infrastructure. Milestones are based on completed TACMEMOs and their use in fleet/unit operations. Currently we have 100% completion rate of projects funded over the last 5 years. Additional milestones are based on validation of TACMEMOs and their incorporation into operational doctrine.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: 0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT AND EVALUATION

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0151 INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION	2,151	2,585	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project develops and updates TTPs for new and existing weapons systems that directly improve the fleet's use of the Navy's weapon systems. Due to the evolving force structures and changing threat scenarios of 21st century warfare, the Navy faces a growing and continuous need to update fleet operational tactics. Through technical and analytical evaluations of fielded weapon systems, the Fleet TAC D&E Program funds the development and updating of fleet tactical procedures to better employ current and new weapon systems.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
CHANGING THREAT SCENARIOS TO IMPROVE AND MEASURE FORCE READINESS	674	430	0	0

The current asymmetric mode of warfare, as evidenced by the attacks on USS Cole and other U.S. interests, requires a detailed look at development of tactics and procedures to provide Naval forces protection, afloat and ashore. These projects provide a tactical advantage to Naval forces enabling continuous operation from an expanded and secure maneuver area on both land and sea. Additionally, these TTPs provide the means to accomplish this advantage thereby assuring freedom of access throughout the battle space.

FY 2006 Accomplishments:

- Developed TTP for Unmanned Air Vehicle (UAV) into Close Air Support (CAS).
- Developed TTP for Threat Specific SSK Diesel Submarine Tactical Memorandum (TACMEMO).
- Developed TTP for Submarine Mast Radar Vulnerability.
- Developed TTP for MK 234 NULKA Protection in vicinity of High Value Units (HVU).

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: 0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT AND EVALUATION

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION

FY 2007 Plans:

- Develop TTP for Ship Stationing Tactical Decision Aid.
- Develop TTP to employ Air related Nontraditional Intelligence, Surveillance and Reconnaissance (NTISR).
- Develop TTP to maximize Mine Hunting Sonar's.
- Develop TTP to develop tactics for Jamming Coordination and Control.
- Establish TTP from a detailed analysis of multiple target motion analysis (TMA) algorithms which are currently utilized to support submarine tactical and sonar systems.
- Establish TTP for Integrating Naval Special Warfare and Information Operations.

FY 2008 Plans:

Program Terminated

	FY 2006	FY 2007	FY 2008	FY 2009
NEWLY EVOLVING FORCE STRUCTURES	672	1,019	0	0

The TTPs being developed around evolving force structures provide the operational construct and architectural framework for Naval Warfare in the Information Age. They integrate warriors, sensors, networks, command and control, platforms and weapons into a distributed combat system scalable across the spectrum of conflict from seabed to space and sea to land.

FY 2006 Accomplishments:

- Developed TTP for Cross Track Error and Channel Width Determination.
- Developed TTP for Maritime Interdiction Operations (MIO) Crisis Response Plan.
- Developed TTP for Integrated Hard Kill and Soft Kill Planning.
- Developed TTP for P-3C Aircraft Diesel Anti-Submarine Warfare (ASW) Tactics and Performance Validation.

FY 2007 Plans:

- Develop TTP to Optimize Joint Forces Maritime Component Commander Airspace Control Authority.
- Develop TTP for SSN (Nuclear Submarine) Mine Susceptibility.

R1 Line Item 146

Page 4 of 6

UNCLASSIFIED

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: 0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT AND EVALUATION

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION

- Develop TTP to determine effectiveness of precision ammunition from a MK45 5"54 Light Weight Gun Mount, against small homing Unmanned Air Vehicles (UAVs) in vertical terminal dives.
- Develop TTP for Information Operations Tactics across all Warfare Areas.
- Develop TTP for Fusing Electronic Warfare (EW) and Automatic Identification System (AIS) Data to Enhance Maritime Domain Awareness.
- Develop TTP for Coordinated Airborne EW in a Campaign Scenario.
- Develop TTP to optimize against FA-18 Infrared-Red (IR) Vulnerabilities and Counter-Attack.

FY 2008 Plans:

Program Terminated

	FY 2006	FY 2007	FY 2008	FY 2009
NEW AND EXISTING WEAPON SYSTEMS EMPLOYMENT	805	1,136	0	0

The emerging development and updating of advanced sensors and weapons systems requires continuous revision and promulgation of advanced tactics and procedures to assure that the Navy can project decisive and persistent offensive power anywhere in the world. TACMEMO's, i.e. TTP, that are developed maximize the Navy's Sea Strike capability through Network Centric Warfare and Navy Fires Networks.

FY 2006 Accomplishments:

- Developed TTP for Standoff Land Attack Missile Expanded Response (SLAM-ER) Platform Specific Surface Warfare (SUW) Tactics.
- Developed TTP for SLAM-ER call for fires.
- Developed TTP MK-50/54 Torpedo Surface Mode Modeling.
- Developed TTP MK-50/54 Torpedo Re-Attack Guidance.
- Developed TTP for Threat Specific Torpedo Evasion TACMEMO.

FY 2007 Plans:

- Develop TTP for Air ASW Tactics to counter sprint and drift Submarines.
- Develop TTP to employ MK 54 Lightweight Hybrid Torpedo.
- Develop TTP for the Analysis of preferred Aircraft placement of MK 54 Torpedoes.

R1 Line Item 146

Page 5 of 6

UNCLASSIFIED

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT AND EVALUATION

PROJECT NUMBER: 0151

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION

- Develop TTP to conduct Reevaluation of Mine Warfare Bottom Types employment.
- Develop TTP for Tactical use of Kingfisher to detect torpedoes, low Doppler (hovering/bottomed) and 'midget' submarines.
- Establish TTP for Torpedo Selection and Employment in a specified geographic area to support the current Operations Plan.
- Establish TTP for Launch Platform Mission Planning (LPMP) Supporting Time Sensitive Targeting (TST).
- Establish TTP for preemptive launch of IR decoys in a hostile landing zone.

FY 2008 Plans:

Program Terminated

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605502N
PROGRAM ELEMENT TITLE: SMALL BUSINESS INNOVATIVE RESEARCH

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
Total PE	361,320	0	0	0	0	0	0	0
1812 NAVAIR SBIR PROGRAM	145,973	0	0	0	0	0	0	0
1813 SPAWAR SBIR PROGRAM	23,465	0	0	0	0	0	0	0
1814 NAVSEA SBIR PROGRAM	65,155	0	0	0	0	0	0	0
1824 CMC SBIR PROGRAM	12,115	0	0	0	0	0	0	0
1862 SSPO SBIR PROGRAM	2,285	0	0	0	0	0	0	0
1863 NAVSUP SBIR PROGRAM	500	0	0	0	0	0	0	0
1864 CNR SBIR PROGRAM	50,891	0	0	0	0	0	0	0
1865 SBIR ADMINISTRATION	4,309	0	0	0	0	0	0	0
2016 NAVFAC SBIR PROGRAM	500	0	0	0	0	0	0	0
2204 SMALL BUSINESS TECH TRANSFER PROGRAM	36,739	0	0	0	0	0	0	0
2240 NAVY DUAL USE TECHNOLOGY PROGRAM	752	0	0	0	0	0	0	0

R1 Line Item 147

Page 1 of 3

UNCLASSIFIED

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605502N
PROGRAM ELEMENT TITLE: SMALL BUSINESS INNOVATIVE RESEARCH

2241 NATCMS									
	953	0	0	0	0	0	0	0	0
2242 JASSM									
	4,047	0	0	0	0	0	0	0	0
2243 SBIR ADMIN - NAVAIR									
	9,299	0	0	0	0	0	0	0	0
2244 SBIR ADMIN - NAVFAC									
	20	0	0	0	0	0	0	0	0
2245 SBIR ADMIN - NAVSUP									
	24	0	0	0	0	0	0	0	0
2248 ADV LIGHTWEIGHT GROUND WEAPONRY									
	143	0	0	0	0	0	0	0	0
2813 SBIR - NSMA									
	4,000	0	0	0	0	0	0	0	0
2814 SBIR ADMIN - NSMA									
	150	0	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Small Business Technology Transfer Program Reauthorization Act of 2001 (Section 9(n)(1) of 15 U.S.C. 638(n)(1)), requires "...each Federal agency that has an extramural budget for research or research and development, in excess of \$1,000,000,000..." "shall expend with small business concerns not less than the percentage of that extramural budget specified in subparagraph (B)...". This Program Element is funded in accordance with the Small Business Technology Transfer Program Reauthorization Act of 2001.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605502N
PROGRAM ELEMENT TITLE: SMALL BUSINESS INNOVATIVE RESEARCH

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR Assessment	361,320	0	0	0
FY 2008/FY 2009 President's Budget Submission	361,320	0	0	0

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

E. PERFORMANCE METRICS:

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605804N
PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
Total PE	28,324	24,976	694	708	741	751	755	761
0835 TECHNICAL INFORMATION SERVICES	919	667	694	708	741	751	755	761
2296 FEDERAL LAB CONSORTIUM	384	0	0	0	0	0	0	0
9999 CONGRESSIONAL PLUS-UPS	27,021	24,309	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Technical Information Services program provides support to achieve affordability in the development of Navy systems by reducing life-cycle costs through the facilitation of advanced technology associations between U.S. industry and the Navy. Warfighting effectiveness is enhanced through strategic relationships with industry to commercialize the science and technology developed by the Naval Research Enterprise and to gain: strategic understanding of industry Independent Research and Development Programs and plans; access concepts and technologies; and access to business practices within the civil sector.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605804N
PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2007 President's Budget Submission	28,904	670	703	723
Congressional Action	0	24,400	0	0
Congressional Undistributed Reductions/Rescissions	-403	-94	0	0
Execution Adjustments	226	0	0	0
Federal Technology Transfer	384	0	0	0
Non-Pay Inflation Adjustments	0	0	-7	3
Program Adjustments	0	0	2	3
Program Realignment	0	0	-8	-24
Rate Adjustments	0	0	4	3
SBIR Assessment	-787	0	0	0
FY 2008/FY 2009 President's Budget Submission	28,324	24,976	694	708

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

E. PERFORMANCE METRICS:

Demonstrate support for technological transitions from the Naval Research Enterprise into industrial and commercial enterprises supporting Navy programs of record and warfighter needs, by being responsive to Office of Technology Research Applications focal points for technology transfer in their development of Cooperative

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605804N
PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

Research and Development Agreements, reducing transaction/information exchange timeframes by 25%.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605804N PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES
 PROJECT NUMBER: 0835 PROJECT TITLE: TECHNICAL INFORMATION SERVICES

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0835 TECHNICAL INFORMATION SERVICES	919	667	694	708	741	751	755	761

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The goal for this project is to enhance warfighter effectiveness by: leveraging industry independent R&D science and technology base; strategic partnerships with industry to transition private sector technology; and the transfer of appropriate Navy-developed innovative concepts and inventions to the private sector for purposes of commercialization. (Public Law 96-480, Federal Technology Transfer Act of 1986)

This project also provides the Department of the Navy (DoN) interface to the Office of the Deputy Under Secretary of Defense for Science and Technology, Office of Technology Transition, and to the Assistant Secretary of Commerce for Technology Policy for matters relating to policy and reporting requirements for technology transfer.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
LEVERAGE OF INDUSTRY R&D	582	0	0	0

This activity area supports the Technology Transfer Program initiated in FY 2005. Funds are realigned starting in FY 2007 to the "Technical Information Services" activity to consolidate management of on-going programs into one activity.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROJECT NUMBER: 0835

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT TITLE: TECHNICAL INFORMATION SERVICES

FY 2006 Accomplishments:

- Continued naval/industry collaboration for industrialized "Cymbal" technology to support improved mine identification.
- Continued Technology Transfer Program to support commercialized transitions into DoN acquisition programs, engineering development programs, and to support emergent warfighter needs identified as a DoN priority.

FY 2007 Plans:

- Continue FY 2006 efforts under 'Technical Information Services' activity.

	FY 2006	FY 2007	FY 2008	FY 2009
TECHNICAL INFORMATION SERVICES	337	667	694	708

Technical Information Services supports the spin-in and spin-out of research and development performed by Navy laboratories and industry. This program develops the tools and provides management oversight of the DoN Domestic Technology Transfer (T2) Program.

Increase in FY 2007 and out is due to realignment of funds and efforts from the "Leverage of Industry R&D" activity.

FY 2006 Accomplishments:

- Continued to assist small companies to participate in the NPCP and other naval programs.
- Continued on-line job performance support and training tools for DoN technology transfer professionals.
- Continued to maintain the network tracking of technology transfer efforts required for Congressional reporting.
- Completed support to NARDIC as the primary outreach resource to the private sector.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROJECT NUMBER: 0835

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT TITLE: TECHNICAL INFORMATION SERVICES

FY 2007 Plans:

- Continue all Technical Information Services efforts of FY 2006 with the exception of the NPCP & NARDIC Programs which have been cancelled.
- Revision of 2002 Navy CRADA Handbook and update standard CRADA template.
- Initiate two new pilot programs.
- Increase outreach and marketing efforts.
- Complete Technology Transfer program efforts (Realigned from 'Leverage of Industry R&D' activity) under this consolidated activity area.
- Complete collaboration for industrialized "Cymbal" technology applicable to mine identification support. (Realigned from "Leverage of Industry" activity.)

FY 2008 Plans:

- Continue all Technical Information Services efforts of FY 2007.

FY 2009 Plans:

- Continue all Technical Information Services efforts of FY 2008.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605804N PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES
 PROJECT NUMBER: 2296 PROJECT TITLE: FEDERAL LAB CONSORTIUM

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
2296 FEDERAL LAB CONSORTIUM	384	0	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Federal Laboratory Consortium operates in accordance with P.L. 104-113, the National Technology Transfer and Advancement Act of 1995.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
FEDERAL LABORATORY CONSORTIUM	384	0	0	0

The Federal Laboratory Consortium for Technology Transfer (FLC) was established by Congress under the Federal Technology Transfer Act of 1986 (P.L. 99-502, 20 October 1986, as amended). The FLC, in cooperation with federal laboratories and the private sector, provides services to enhance the transfer of federally-developed technology to include activities such as: developing and administering technology transfer training courses and materials; assisting Federal agencies and laboratories in their technology transfer programs; and providing a clearinghouse for technology transfer requests.

FY 2006 Accomplishments:

- Funded the Federal Laboratory Consortium for Technology Transfer in compliance with the Federal Technology Transfer Act of 1986. (P.L. 99-502, 20 October 1986, as amended)

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605804N PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES
 PROJECT NUMBER: 9999 PROJECT TITLE: Congressional Plus-Ups

CONGRESSIONAL PLUS-UPS:

	FY 2006	FY 2007
COMMERCIALIZATION OF ADVANCED TECHNOLOGY (CAT)	4,789	4,782

The Center for Commercialization of Advanced Technology (CCAT) facilitates the development of commercial and alternative applications of government-sponsored technologies and develops high-tech solutions using advances in technology from academia and the private sector for use in government defined priority issues. CCAT executes product development awards and provides business development expertise and market identification and analysis to small businesses.

	FY 2006	FY 2007
HTDV	3,834	3,985

Hawaii Technology Development Venture (HTDV): provided 15-25 grants awarded in a competitive proposal process to support continued investment in local technology companies research on UAV sensor packages, robotics applications, force protection and IED detection, prevention and threat elimination; conducted workshops on project management, business enterprise and proposal preparation; and initiated a mentoring program linking large DoD contractors with local small businesses.

	FY 2006	FY 2007
ILLINOIS TECHNOLOGY TRANSITION CENTER	958	1,644

The Illinois Technology Transition Center being managed by the Illinois Technology Development Alliance (ITDA) provides technology transition and commercialization services by identifying technology needs within the Navy, identifying small businesses and technologies with possible solutions to these needs, performing technology transition and commercialization assistance to these companies, and administering an award program where ITDA will bridge the resource gap between technology development and commercialization.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROJECT NUMBER: 9999

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT TITLE: Congressional Plus-Ups

	FY 2006	FY 2007
INTEGRATED MANUFACTURING ENTERPRISE	2,875	1,644

The Integrated Manufacturing Enterprise program will continue to significantly impact the cost quality and schedule of Navy ships through the implementation of state-of-the-art best practices, across a wide spectrum of disciplines, including information processing, business practices, manufacturing process controls and supply chain management and planning. The Louisiana Center of Manufacturing Sciences (LCMS) and its membership of commercial manufacturers will continue and extend the benefits previously demonstrated by the exploitation of previous investment in best practices and technologies by their organizations for application to the Navy's shipbuilding program. The processes implemented in this program will be readily transferable to other ship construction and overhaul activities, both public and private, multiplying the benefit to the Navy several-fold.

	FY 2006	FY 2007
JOINT INFORMATION TECHNOLOGY CENTER	7,375	4,782

The Joint Interoperability Test Command (JITC) project funded early stage development to directly link the current and projected Service / Defense Agency information systems, applications and capabilities to Global Command Support System requirements; identified the Joint Decision Support Tool that will provide for mission analysis and operational collaboration capabilities; and identified those data elements that will provide for a Common Data Representation.

	FY 2006	FY 2007
PACIFIC-BASED JOINT INFO TECH CENTER	7,190	7,472

The Pacific-Based Joint Information Technology Center supported research and development of theater medical surveillance networks and the joint medical logistics web site development for DoD asset visibility. Both programs were jointly funded by ONR and the Defense Medical Logistics project. In support of the J4 Staff, Joint Chiefs of Staff funds continued research and development for developing cross domain solutions capable of sharing information between networks of differing security levels for both U.S. and coalition network environments. Supported research and development of methods for the extraction of information from U.S. logistics information systems to develop a comprehensive supply chain management tool for the Joint Staff and

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT NUMBER: 9999

PROJECT TITLE: Congressional Plus-Ups

Combatant Commanders. Supported educational outreach K-12 in Hawaii to engage students in emerging technology applications.

EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE 0605853N Management, Technical and International Support			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	41.665	45.126	49.498	50.311	51.061	52.200	53.353	54.329
0149 International Cooperative RDT&E	1.652	3.715	4.861	4.944	5.005	5.062	5.156	5.251
1767 Naval War College/Center for Naval Warfare Studies	3.223	3.074	3.661	4.164	4.220	4.299	4.376	4.455
2221 Assessment Program	21.225	21.532	22.167	22.672	22.840	23.396	24.040	24.495
3025 Capital Asset Management System	1.951	1.520	1.609	1.581	1.644	1.675	1.691	1.707
3039 CHENG	13.614	15.285	17.200	16.950	17.352	17.768	18.090	18.421
Quantity of RDT&E Articles	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>International Cooperative RDT&E: This project provides program management, execution, and support to implement a broad range of cooperative Naval Research and Development, Test and Evaluation (RDT&E) initiatives to harmonize U.S. Navy requirements with allied and friendly nations, identify cooperative international opportunities, and improve coalition interoperability. In addition, it develops coherent approaches, in coordination with Combatant Commanders (COCOMs), Chief of Naval Operations (OPNAV(N3/N5)), Office of Naval Research (ONR) and appropriate Partner nations, to sea-based missile defense, command, control, communications, computers and intelligence (C4I), cooperative acquisition programs, and identifying technology to complement Sea Power 21. The project scope in FY06 has been recently expanded from primarily North Atlantic Treaty Organization (NATO)-centric to include a Global War on Terrorism (GWOT) and Maritime Domain Awareness (MDA) emphasis. Relationships are being initiated with a greatly expanded group of countries, particularly those with nascent and littoral navies located in new regions critical to U.S. security. The project was restructured internally to both maintain ongoing international relationships and projects while preparing to facilitate support for a global network of maritime nations under MDA and increase GWOT-related support requirements. Beginning in FY 2007, additional funding will support evolving cooperative RDT&E exchanges and projects contributing to GWOT and MDA. In cooperation with allied and friendly maritime nations, various low risk projects will be funded in areas such as coastal and harbor surveillance and patrol, maritime tracking, C4I, surveillance and reconnaissance (C4ISR), and other technologies that meet emergent security requirements. The funds will be used to fill capability gaps in the near-term and develop promising MDA, GWOT and related RDT&E technologies while longer-term funding is pursued in coordination with resource sponsors through normal budget processes.</p> <p>Naval War College/Center for Naval Warfare Studies: Naval War College (NWC) research, analysis and gaming activities serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, Joint and Interagency communities. These efforts generate strategic and operational alternatives, quantitative analysis, and political military assessments, and provide recommendations to the Chief of Naval Operations (CNO) and Fleet Commanders regarding the formulation and execution of options for the President of the United States.</p>								

EXHIBIT R-2, RDT&E Budget Item Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY BA-6	R-1 ITEM NOMENCLATURE 0605853N Management, Technical and International Support	
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION (Cont.):</p> <p>Assessment Program: Provides capability based planning assessment for Joint Capabilities Integration and Development System (JCIDS), conducts analysis to affect warfighting capability trades and enterprise resources, identifies needs, gaps, and overlaps, and assesses alternative solutions to Joint needs. Manages Office of the Chief of Naval Operations (OPNAV) support to Office of the Secretary of Defense (OSD)/Navy's analytic agenda. Provides overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance for Planning, Programming and Budgeting Execution (PPBE) which provides gap analysis and investment strategy and Total Obligation Authority (TOA) allocation. Provides independent capability analysis directly to Chief of Naval Operations (CNO) and assists in structuring follow-on OPNAV analyses. The program coordinates Navy's position for the Enhanced Planning Process and conducts Net Assessments. This program serves as the lead campaign analysis for Office of the Chief of Naval Operations (OPNAV) and supports Concept of Operations (CONOPS) analysis and Chief of Naval Operations Investment Strategy assessments, all of which prove analytical underpinnings/basis for programmatic decisions of the Navy's top leadership regarding the integration of all Navy warfare and support requirements. This program is dual-hated as the head of CNO's Capability Analysis Group and serves the CNO directly as an independent assessor providing a broad-view perspective across the Navy staff apart from resource sponsors, with an integrated look at both warfighting and warfighting support programs. Program supports the world class modeling efforts to attain a level of modeling and simulation capability that is world class and establishes OPNAV as a leader in the DoD modeling and simulation community. Provides the CNO alternatives in assessing the implications imbedded within resource decisions in a quantified context of costs versus capability versus risk. This program provides independent analytic support to Navy leadership in conjunction with various executive level decision forums. The Assessment Program develops tools and analytical methodologies that assist in evaluating Navy programs and provides technical leadership for the analysis functional area of Naval Modeling and Simulation.</p> <p>Capital Asset Management System: This project supports the RDT&E,N and Office of Naval Research (ONR) portion of the larger DoD and Navy-wide effort to implement the Financial Improvement Plan (FIP). Corrective actions required to resolve known deficiencies and determine resource requirements (people and systems) have been identified. Funding beyond FY 2007 is for the sustainment of the clean and auditable statements for RDT&E,N/ONR.</p> <p>CHENG: funds the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN RD&A) Chief Engineer (RDA CHENG) to develop and implement architecture-based systems engineering processes, methods and tools that assure integrated and interoperable systems are delivered to the fleet. This project provides the mission-oriented technical basis for implementing capability-based acquisition management within the Department of Navy (DON) to engineer and field Navy and Marine Corps combat systems, weapon systems, and command, control, communication, computer and intelligence (C4I) programs that must operate as family-of-systems (FoS) or system-of-systems (SoS) . The focus of this project is on identifying the functions, relationships, and connections between systems at both the force and unit level and across warfare mission areas, and encompasses three key elements: Systems Engineering to provide the framework for making engineering decisions by warfighting capability at the FoS/SoS level and supports consistent engineering and investment decision-making across Navy and Marine Corps programs within capability-based acquisition portfolios. Naval Collaborative Engineering Environment development and implementation as a DON enterprise resource for Naval integration and interoperability information to enable collaboration and decision support among Fleet organizations, Program Executive Offices, Program Managers, Systems Commands, prime contractors, Resource/Warfare Sponsors and Comptroller organizations. Standards, Policies and Guidelines engineering and technical staff to implement DON, OSD and Joint integration and interoperability and Anti-Tamper requirements. Program increase in FY 2007 implements DON Anti-Tamper program to protect critical technology investments.</p>		

Exhibit R-2 RDTE Budget Item Justification

EXHIBIT R-2 RDT&E Budget Item Justification	DATE: February 2007
---------------------------------------------	----------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	R-1 ITEM NOMENCLATURE 0605853N Management, Technical and International Support
-------------------------------------------------------------	-----------------------------------------------------------------------------------

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
FY07 President's Budget	42.611	47.213	48.998	49.206
FY08/09 President's Budget Submit	41.665	45.126	49.498	50.311
Total Adjustments	-0.946	-2.087	0.500	1.105
 Summary of Adjustments				
Navy Miscellaneous Adjustments	-0.905			
Functional Realignment for OPNAV Prog. Support Costs	-0.041			
BRAC Adjustment				0.002
CIVPERS/CS Adjustment			-0.244	-0.241
Rate Adjustment			0.034	0.041
Federally Funded R&D Center		-0.115		
Congressional Adjustment		-1.972		
Non-Purchase Inflation Adjustment			-0.082	0.056
Program Adjustments	-0.946	-2.087	0.792	1.247
Subtotal	-0.946	-2.087	0.500	1.105

Schedule:

Not Applicable

Technical:

Not Applicable

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2007				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support			PROJECT NUMBER AND NAME 0149 INTERNATIONAL COOP RDT&E				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
*Project Cost		1.652	3.715	4.861	4.944	5.005	5.062	5.156	5.251
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project provides program management, execution, and support to implement a broad range of cooperative Naval Research and Development, Test and Evaluation (RDT&E) initiatives to harmonize U.S. Navy requirements with allied and friendly nations, identify cooperative international opportunities, and improve coalition interoperability. In addition, it develops coherent approaches, in coordination with Combatant Commanders (COCOMs), Chief of Naval Operations (OPNAV (N3/N5)), Office of Naval Research (ONR) and appropriate Partner nations, to sea-based missile defense, command, control, communications, computers and intelligence (C4I), cooperative acquisition programs, and identifying technology to complement Sea Power 21.

The project scope in FY06 has been recently expanded from primarily North Atlantic Treaty Organization (NATO)-centric to include a Global War on Terrorism (GWOT) and Maritime Domain Awareness (MDA) emphasis. Relationships are being initiated with a greatly expanded group of countries, particularly those with nascent and littoral navies located in new regions critical to U.S. security. The project was restructured internally to both maintain ongoing international relationships and projects while preparing to facilitate support for a global network of maritime nations under MDA and increase GWOT-related support requirements.

On-going cooperative RDT&E programs, projects and exchanges are pursued to identify cooperative acquisition programs, enhance GWOT efforts and MDA development, fill capability gaps, improve U.S./coalition interoperability, and set standardization with international partners. Such efforts have resulted in:

1. Negotiating and developing approximately 50 International RDT&E Agreements annually with allied and friendly nations;
2. Executing over 300 Information Exchange Annexes (IEAs) with foreign partners;
3. Improving IEA information dissemination with allied and friendly countries and within Department of the Navy (DoN);
4. Leading Office of the Chief of Naval Operations (OPNAV) input to Office of the Under Secretary of Defense (OUSD) Acquisition, Technology, and Logistics (AT&L) Foreign Comparative Test (FCT) Program, Coalition Warfare Program, and Technology Transfer Security Assistance Review Boards (TTSARB).
5. Participating in Office of the Secretary of Defense (OSD)-directed Armaments Cooperation Forums, including the Conference of NATO Armaments Directors' groups (NATO Naval Armaments Group (NNAG), and Senior National Representative-Maritime (SNR-M));

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 0149 INTERNATIONAL COOP RDT&E

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

- 6. Funding of various international RDT&E support databases including Technical Project Officer (TPO), International Agreement Generators, Information/Data Exchange Agreements, and Project Agreements/Memorandums of Understanding;
- 7. Leading the Engineering and Scientist Exchange Program (ESEP);
- 8. Overseeing OPNAV input to Foreign Comparative Testing (FCT) Program and OSD Coalition Warfare Program (CWP).

Performance Metrics:

The Navy International Cooperative RDT&E Project 0149 supports the implementation of many international cooperative program activities throughout the Department of the Navy (DoN) RDT&E communities. The project funds DoN participation in NATO and OSD-lead Armaments Cooperation and as well as DoN-lead international cooperation that promote coalition interoperability, and set standards with international partners. The focused activities under Project 0149 maximize the DoN's efforts by leveraging international technologies and funding to fulfill capabilities gaps, gain access to foreign research and testing data at no cost, and avoid duplicate research and development activities. The performance goal is to obtain foreign technologies and financial contribution that reduce the requirement for DoN funding.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
-------------------------------------------	--	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 0149 INTERNATIONAL COOP RDT&E
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	----------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
International Coop	1.652	3.715	4.861	4.944

FY 2006 ACCOMPLISHMENTS:

As directed by the CNO's FY2005-2006 Maritime Security Guidance and in coordination with combatant commands (COCOMs) and N6/7:

- Defined Combined Enterprise Regional Information Exchange System (CENTRIX) - like net architectures and open standards to enhance joint and coalition interoperability;
- Developed a sea-based missile defense mission roadmap;
- Identified partner nation technologies that support Sea Power 21 required capabilities; and
- Developed a security cooperation roadmap addressing command, control, communications, computers and intelligence (C4I) with maritime partner nations.

Continued cooperative programs and added new emphasis on acquisition of Global War on Terrorism (GWOT) and Maritime Domain Awareness (MDA) technologies with friendly nations and new allies. Worked with DoD, U.S. State Department and other agencies to assess and prioritize potential new partners for RDT&E cooperative programs while supporting existing programs with long-established allies.

- Conducted an in-depth review of International Agreements and cooperative programs with the United Kingdom (U.K.)
- Provided support to Acquisition Integrated Product Teams (IPTs) in evaluation of international cooperative alternatives for development of DoN programs as well as support to the OSD International Cooperation Office.
- Incorporated RDT&E project awareness into OPNAV Resource Sponsors to enhance Navy Capabilities Development Process (NCDP).
- Initiated new DoN database planning for the drafting, negotiating, managing and tracking of proposed International Agreements (IAs) for R & D technology projects with key allies and friendly nations. Set up a new database on IAs between friendly countries and other US military/ government agencies to reduce duplication of effort and development costs.
- Refocused international activities within OPNAV departments to obtain foreign technologies and capabilities that improve U.S. Navy war fighting capabilities through collaboration and cooperative development. Conducted harmonization of requirements with critical allies to identify common areas of interest, particularly in GWOT, MDA, littoral operations, anti-submarine warfare and non-conventional threats.
- Increased level of Navy participation in the Engineer and Scientist Exchange Program (ESEP) to four. Initiated assignment analysis of scientist/engineers to better target future opportunities for emerging technologies and programs at foreign research establishments.
- Reprioritized cooperative programs with foreign navies to focus on technology, techniques and equipment that improve coalition capability. Led OPNAV participation in OSD(AT&L) FCT Program and the CWP to speed fielding of war fighting capabilities.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N / Management, Technical and International Support	PROJECT NUMBER AND NAME 0149 INTERNATIONAL COOP RDT&E

CONTINUATION:

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

FY 2007 PLANS:

FY07 plans will see a continuation of FY06's new mission efforts. In coordination with Combatant Commanders (COCOMS), US State Department, Office of Defense Coordination, Office of Naval Research and Navy International Programs Office, Senior National Representative (SNR) will assess, identify, prioritize and engage in cooperative projects and exchanges with friendly and allied countries particularly in Global War on Terrorism (GWOT) and Maritime Domain Awareness (MDA) areas. Actively support approved Quadrennial Defense Review (QDR) recommendations in international arenas including technology development, acquisition and programs to meet US Navy requirements. In conjunction with international partners, continue to focus on coalition interoperability across the operational spectrum from stability operations, homeland security/defense, and anti-terrorism to major combat operations. Continue to support NATO Naval Armaments Group (NNAG) and Five Power Groups on cooperative programs while adapting to new security requirements.

- Increase participation in OUSD AT&L's Foreign Comparative Test (FCT) Program and the Coalition Warfare Program (CWP) to improve program selection and meet emerging military capability requirements.
- Improve and maintain DoN international databases for drafting, negotiating, managing and tracking of proposed International Agreements (IAs) for R&D technology projects with key allies and friendly nations. Functionally integrate DoN international databases across OPNAV departments to improve leveraging of program dollars, fielding of better products, and speeding delivery.
- Provide support to Acquisition Integrated Product Teams (IPTs) in evaluating international cooperative alternatives for development of DoN programs as well as support to the OSD International Cooperation Office.
- Continue execution of over 300 Information Exchange Agreements.
- Evaluate foreign research establishments and emerging technologies to determine best placement of US Navy Engineers and Scientists overseas under the Engineer and Scientist Exchange Program (ESEP) program. Conduct competitive screening for scientist and engineer selection to improve Navy ESEP participation. Conduct post-assignment analysis of scientists/engineers to better integrate the technologies assimilated while on assignment at a foreign research establishment.
- Conduct harmonization of requirements with critical allies to improve coalition operations while developing interoperability with new allies and friendly nations. Focus on CNO-directed key countries in regional areas to obtain and support foreign technologies and capabilities through collaboration and/or cooperative development that improve USN joint and coalition war fighting capabilities .
- Beginning in FY 2007, additional funding will support evolving cooperative exchanges and projects contributing to GWOT and MDA. International relationships have been initiated with a greatly expanded group of countries, particularly those with nascent and littoral navies located in new regions critical to US security. In cooperation with allied and friendly maritime nations, various low risk projects will be funded in areas such as coastal and harbor surveillance and patrol, maritime tracking, Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR), and other technologies that meet emergent security requirements. The funds will be used to fill capability gaps in the near-term and develop promising MDA, GWOT and related RDT&E technologies while longer-term funding is pursued in coordination with resource sponsors through normal budget processes.

FY 2008 PLANS:

- Continue all efforts of FY 2007 less those noted as completed above.

FY 2009 PLANS:

- Continue all efforts of FY 2008 less those noted as completed above.

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 0149 INTERNATIONAL COOP RDT&E
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	----------------------------------------------------------

C. OTHER PROGRAM FUNDING SUMMARY:

Not Applicable

D. ACQUISITION STRATEGY:

Not Applicable

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support			PROJECT NUMBER AND NAME 1767 NAVAL WAR COL STRATEGIC STUDIES SUPT				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost		3.223	3.074	3.661	4.164	4.220	4.299	4.376	4.455
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Naval War College (NWC) research, analysis and gaming activities serve as a focal point, stimulus, and major source of strategic and operational thought within the Navy, Joint and Interagency communities. These efforts generate strategic and operational alternatives, tactical imperatives, quantitative analysis, political-military assessments, and provide recommendations to the Chief of Naval Operations (CNO), Fleet Commanders and numbered Fleet Commanders regarding the formulation and execution of maritime options for the President of the United States.

Performance Metrics:

This is a level of effort project to provide research, analysis and war gaming to meet the needs of the Secretary of the Navy, the Chief of Naval Operations, and Fleet Commanders. Performance is measured in terms of both the quantity and quality of war games, and the extent to which demand for war games and research products can be accommodated within level of effort funding. Results of research products and war games are evaluated through customer feedback and the extent to which findings are incorporated into follow-on research and practical applications such as Navy doctrine, operational tactics, and programming decisions made during the Planning, Programming, Budgeting & Execution (PPBE) process.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
-------------------------------------------	--	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 1767 NAVAL WAR COLLEGE STRATEGIC STUDIES SUPT
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
Strategic Studies	1.275	1.426	1.721	1.871

Naval War College (NWC) conducts research in strategic studies in response to tasking from the Secretary of the Navy (SECNAV), Chief of Naval Operations (CNO), Fleet Commanders, numbered Fleet Commanders, and Combatant Commanders (COCOMS). NWC also hosts the activities of the CNO's Strategic Studies Group (SSG). The CNO SSG is a select group of senior naval officers handpicked by the CNO, who report to him in the development of revolutionary warfighting and operational concepts, such as Sea Strike and FORCEnet.

FY 2006 ACCOMPLISHMENTS:

- Completed SSG XXV tasking from CNO to "operationalize the Free Form Force."
- Conducted research and analysis projects and provided supporting events for OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Projects are focused on direct research and analysis support for Commander Fifth Fleet (C5F), Commander Sixth Fleet (C6F) and Commander Seventh Fleet (C7F), as well as on the Proliferation Security Initiative (PSI) in support of the OPNAV Staff and Chinese maritime developments in support of C7F, Office of Naval Intelligence (ONI) and Commander, Mine Warfare Command (COMMINEWARCOM). The College has also directly supported Commander Second Fleet (C2F) and Commander Third Fleet (C3F) on the subject of Maritime Missile Defense and Maritime Domain Awareness. Other projects deal with Iraqi counter-insurgency, naval transformation, and mine and submarine warfare.
- Initiated SSG XXVI tasking from the CNO to generate revolutionary warfighting concepts for "fighting in cyberspace in 2030."

FY 2007 PLANS:

- Continue to conduct research and analysis projects and provide supporting events for OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Projects in direct support of numbered fleet commanders will be expanded to include C7F with particular focus on India and the Indian Ocean.
- Continue to support the OPNAV Staff on the PSI and support ONI on Chinese maritime developments.
- Complete tasking from the CNO to SSG XXVI to address "fighting in cyberspace in 2030."

FY 2008 PLANS:

- Continue to conduct research and analysis projects and provide supporting events for OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Projects in direct support of numbered fleet commanders will reach steady state.
- Continue to support the OPNAV Staff on the PSI and support ONI on Chinese maritime developments.
- Continue to generate revolutionary operating and warfighting concepts for 2035 and beyond under CNO tasking.

FY 2009 PLANS:

- Continue all efforts of FY08 less those noted as completed above.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
-------------------------------------------	--	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 1767 NAVAL WAR COLLEGE STRATEGIC STUDIES SUPT
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
Naval War Gaming Support	1.114	0.907	1.085	1.118

Naval War College (NWC) conducts strategic and operational war gaming and research for OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Each year, 50 - 60 major war games and associated events provide support to efforts that explore and analyze military, political, informational and economic aspects of differing strategic and operational scenarios and tactical imperatives.

FY 2006 ACCOMPLISHMENTS:

- Conducted 50-55 major war games and related events in support of OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders.
- Developed networked warfare war gaming system in order to support research on networked Command and Control (C2).
- Conducted operational research and experimentation for Joint Forces Maritime Component Commander (JFMCC) concept development.
- Continued analytical research on key operational challenges such as theater Anti Submarine Warfare (ASW), submarine payloads, seaborne maritime missile defense, global maritime security, maritime homeland defense, maritime domain awareness, and Sea Basing.
- Conducted research supporting war games co-sponsored with Naval Warfare Development Command (NWDC) and US Joint Forces Command.
- Developed advanced war gaming analytical methods and tools.
- Continued analytic research on effects based operations and systems thinking for Naval Forces Europe (NAVEUR) and Navy Component for Central Command (NAVCENT).
- Continued research in advanced adaptive C2 for Office of Naval Research (ONR).
- Developed educational materials for Naval Operations Planners Course (NOPC).
- Conducted high level policy analytic research and gaming addressing Proliferation Security Initiatives for OSD.

FY 2007 PLANS:

- Continue to conduct 55-60 major war games and related events in support of OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders.
- Continue to conduct operational research and experimentation for JFMCC concept development via JFMCC Center of Excellence.
- Continue analytical research on key operational challenges such as theater ASW, submarine payloads, seaborne maritime missile defense, global maritime security, maritime homeland defense, maritime domain awareness, and Sea Basing.
- Continue to conduct research supporting war games co-sponsored with NWDC and US Joint Forces Command.
- Continue to develop advanced war gaming analytical methods and tools.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
-------------------------------------------	--	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 1767 NAVAL WAR COLLEGE STRATEGIC STUDIES SUPT
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM: Continued

	FY 06	FY 07	FY 08	FY 09
Naval War Gaming Support				

FY 2007 PLANS (CONTINUED):

- Continue to conduct analytic research on effects based operations and systems thinking for NAVEUR and NAVCENT.
- Continue to conduct research in advanced adaptive C2 for ONR.
- Continue to develop educational materials for Naval Operations Planners Course (NOPC).
- Continue to conduct high level policy analytic research and gaming addressing Proliferation Security Initiatives for OSD.

FY 2008 PLANS:

- Continue all efforts of FY07 less those noted as completed above.
- Conduct Maritime Operations Training for officer and enlisted personnel.

FY 2009 PLANS:

- Continue all efforts of FY08 less those noted as completed above.
- Continue Maritime Operations Training for officer and enlisted personnel to raise throughput.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
-------------------------------------------	--	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 1767 NAVAL WAR COLLEGE STRATEGIC STUDIES SUPT
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
Warfare Analysis and Research	0.407	0.266	0.414	0.424

Naval War College (NWC) supports senior decision-makers from the Department of Defense, Department of the Navy, the numbered Fleets, Fleet Commanders and Combatant Commanders in reaching well-informed, objective decisions on strategic, operational and programmatic issues through collaborative research which integrates traditional research and analysis with advanced decision support tools. Each year, 30 - 40 events provide support to efforts that explore and analyze a wide range of issues and their associated factors which address future needs of the Service. These issues and decisions can then be further tested and evaluated in conjunction with our wargaming center.

FY 2006 ACCOMPLISHMENTS:

- Conducted 25-30 major decision events in support of OPNAV staff, Naval Undersea Warfare Center, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Major efforts included studies in support of research for Minewarfare Capabilities Study, Unmanned Surface Vehicle (USV) Master Plan, Unmanned Vehicle Command and Control, Maritime Ballistic Missile Defense Concept Study, Nuclear Guided Missile Submarines; Converted Ballistic Missile Submarines Joint Command Alternatives, Maritime Domain Awareness and a globally-networked Maritime Operations Headquarters.
- Provided direct support to NWC student research groups and wargaming.

FY 2007 PLANS:

- Continue to conduct 30-40 major decision events in support of OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders.
- Continue analytical research on key strategic and operational challenges such as maritime ballistic missile defense, unmanned vehicles, global maritime security, maritime domain awareness, and multi-service force deployment.
- Continue to conduct additional evaluation of concepts and decision events in conjunction with wargaming center.
- Continue to provide direct support to NWC student research groups and wargaming.

FY 2008 PLANS:

- Continue all efforts of FY07 less those noted as completed above.

FY 2009 PLANS:

- Continue all efforts of FY08 less those noted as completed above.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
-------------------------------------------	--	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 1767 NAVAL WAR COLLEGE STRATEGIC STUDIES SUPT
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
NWC Student Research Projects	0.077	0.150	0.149	0.152

Selected, top performing Naval War College (NWC) students to conduct focused research and analysis of current and future strategic and operational challenges and tactical imperatives. These students are organized under the supervision of the Mahan Scholars Program and the Halsey Group Program.

FY 2006 ACCOMPLISHMENTS:

- Conducted focused research, analysis, and free-play war gaming of current and future operational challenges under the Halsey Group program.
- Completed projects presented to the CNO and theater operational commanders which included concepts of operations for Theater Anti-Submarine Warfare (ASW), Theater Anti-Air Warfare (AAW), Theater Strike Warfare, Maritime Interdiction, Mine Warfare, Theater Ballistic and Cruise Missile Defense, and Sea Basing. All represented real world operational challenges of concern to the CNO and senior theater commanders. The Halsey Groups have provided direct warfighting support to the Commander Pacific Fleet and C7F.
- Initiated focused research and analysis of current and future operational challenges centered on joint operational concepts for countering a range of emerging challenges to assured theater access, to include: Theater Anti-Submarine Warfare (ASW), Theater Anti-Air Warfare (AAW), Theater Strike Warfare, Maritime Interdiction and Theater Missile Defense. All represented real world operational challenges of concern to the CNO and senior theater commanders in the Central Command area of responsibility (AOR).

FY 2007 PLANS:

- Continue to conduct focused research, analysis and war gaming of current and future strategic operational challenges and tactical imperatives by the Halsey Group and Mahan Scholars programs.
- Research groups will continue to conduct focused research, analysis and free-play war gaming of current and future operational challenges and tactical imperatives arising from access denial efforts at the high end of the conflict spectrum in the Pacific and Central Command (CENTCOM) AOR. Research and analysis efforts will continue in those areas above, and will be expanded to include a detailed focus on counter-targeting, operational deception, and countering information denial at the theater joint operational level.

FY 2008 PLANS:

- Continue all efforts of FY07 less those noted as completed above.

FY 2009 PLANS:

- Continue all efforts of FY08 less those noted as completed above.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
-------------------------------------------	--	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 1767 NAVAL WAR COLLEGE STRATEGIC STUDIES SUPT
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
JFMCC/Worldwide Naval Component	0.000	0.000	0.292	0.599
Commanders (WNCC)				

Naval War College (NWC) conducts research and analysis at the operational level of war, including direct support for the Maritime Headquarters (MHQ) with Maritime Operations Center (MOC) and Combined/Joint Forces Maritime Component Commander (C/JFMCC) activities. These activities include support for concept and doctrine development of numbered fleet war games, exercises, education, research and analysis. NWC is responsible for development of Professional Military Education for Naval Component Commanders and Numbered Fleet Staff personnel, and the Numbered Fleet Commander, including education and research initiatives in support of concept of operations development, training and C/JFMCC advisory and assist team.

FY 2006 ACCOMPLISHMENTS: Not Applicable

FY 2007 PLANS: Not Applicable

FY 2008 PLANS:

- Conduct research and analysis projects and provide support of MHQ with MOC and C/JFMCC activities and direct support for the numbered Fleet Commanders. Efforts include assist team visits in support of analysis and definition of maritime operational processes, including execution battle management, tasking subordinates, operational level planning and operational/effects assessment and further development of Maritime Task Planning tool.

FY 2009 PLANS:

- Continue all efforts of FY08 less those noted as completed above.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
-------------------------------------------	--	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 1767 NAVAL WAR COLLEGE STRATEGIC STUDIES SUPT
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	--------------------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
Maritime Strategy	0.350	0.325	0.000	0.000

Naval War College (NWC) has been directed by OPNAV N3/5 to support the development of a new maritime strategy, as called for by the CNO. NWC will serve as the lead organization to coordinate the efforts of the Naval Postgraduate School, the US Naval Academy and to integrate the results of workshops and conferences held by a range of outside agencies.

FY 2006 ACCOMPLISHMENTS:

- Conducted process building and held two workshops, one to develop geostrategic planning factors for subsequent use in following workshops and games, and a strategy development lessons learned conference that featured discussions by key players in the development of the 1980s maritime strategy. In addition, NWC commissioned several papers in conjunction with these events, that are meant to be published in the Naval Wall College *Review* or in an edited volume on maritime strategy. NWC also contracted for project support and key subject matter experts to support Red Team (potential adversaries and other players of strategic significance) strategy development.

FY 2007 PLANS:

-Conduct at least two major wargames and two conferences to support the research and analysis effort. In addition, NWC will carry out a program of national and international outreach as an integral part of the strategy development process. Included in this process is a series of 10 public seminars around the nation, and several high-level executive conferences to vet and socialize the maritime strategy process and to seek additional ideas from key policy makers, industry, the American public and selected elements of the international community.

FY08 PLANS:

- Upon adoption of a new maritime strategy, NWC will undertake a continuing program of research, analysis and gaming to gain greater insight into its strategic, operational and programmatic implications. This work is unfunded. NWC will submit an issue paper to address this shortfall. NWC will support similar efforts by other Navy commands through focused wargaming.

FY09 PLANS:

- Upon adoption of a new maritime strategy, NWC will undertake a continuing program of research, analysis and gaming to gain greater insight into its strategic, operational and programmatic implications. This work is unfunded. NWC will submit an issue paper to address this shortfall. NWC will support similar efforts by other Navy commands through focused wargaming.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 1767 NAVAL WAR COLLEGE STRATEGIC STUDIES SUPT
<p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Not Applicable</p> <p>D. ACQUISITION STRATEGY:</p> <p>Not Applicable</p>		

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support			PROJECT NUMBER AND NAME 2221 Assessment Program				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011	FY2012	FY2013
Project Cost		21.225	21.532	22.167	22.672	22.840	23.396	24.040	24.495
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Project 2221, Assessment Program, provides capability based planning assessment for Joint Capabilities Integration and Development System (JCIDS), conducts analysis to affect warfighting capability trades and enterprise resources, identifies needs, gaps, and overlaps, and assesses alternative solutions to Joint needs. Manages Office of the Chief of Naval Operations (OPNAV) support to Office of the Secretary of Defense (OSD)/Navy's analytic agenda. Provides overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance for Planning, Programming and Budgeting Execution (PPBE) which provides gap analysis and investment strategy and Total Obligation Authority (TOA) allocation. Provides independent capability analysis directly to Chief of Naval Operations (CNO) and assists in structuring follow-on OPNAV analyses. The program coordinates Navy's position for the Enhanced Planning Process and conducts Net Assessments. This program serves as the lead campaign analysis for Office of the Chief of Naval Operations (OPNAV) and supports Concept of Operations (CONOPS) analysis and Chief of Naval Operations Investment Strategy assessments, all of which prove analytical underpinnings/basis for programmatic decisions of the Navy's top leadership regarding the integration of all Navy warfare and support requirements. This program is dual-hated as the head of CNO's Capability Analysis Group and serves the CNO directly as an independent assessor providing a broad-view perspective across the Navy staff apart from resource sponsors, with an integrated look at both warfighting and warfighting support programs. Program supports the world class modeling efforts to attain a level of modeling and simulation capability that is world class and establishes OPNAV as a leader in the DoD modeling and simulation community. Provides the CNO alternatives in assessing the implications imbedded within resource decisions in a quantified context of costs versus capability versus risk. This program provides independent analytic support to Navy leadership in conjunction with various executive level decision forums. The Assessment Program develops tools and analytical methodologies that assist in evaluating Navy programs and provides technical leadership for the analysis functional area of Naval Modeling and Simulation

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Navy Standard Scenarios	1.330	1.451	1.485	1.520

FY 2006 ACCOMPLISHMENTS:

Developed, updated and maintained detailed level Navy Standard scenarios based on Defense Planning Guidance. Developed alternative scenarios in support of Quadrennial Defense Review (QDR), Joint studies, and Navy resource analyses. Developed analytic baseline for Major Combat Operations-2 scenario in the 2020 timeframe consistent with the concept of operations and assumptions for the Operations Availability - 06.

FY 2007 PLAN:

Continue to develop, update and maintain detailed level Navy Standard scenarios based on Defense Planning Guidance. Continue to develop alternative scenarios in support of Quadrennial Defense Review (QDR), Joint studies, and Navy resource analyses. Continue to develop, update and maintain analytic baselines for the Major Combat Operations (MCO) based on Defense Planning Guidance.

FY 2008 PLAN:

Continue to develop, update and maintain detailed level Navy Standard scenarios based on Defense Planning Guidance. Continue to develop alternative scenarios in support of Quadrennial Defense Review (QDR), Joint studies, and Navy resource analyses. Continue to develop, update and maintain analytic baselines for the Major Combat Operations (MCO) based on Defense Planning Guidance.

FY 2009 PLAN:

Continue to develop, update and maintain detailed level Navy Standard scenarios based on Defense Planning Guidance. Continue to develop alternative scenarios in support of Quadrennial Defense Review (QDR), Joint studies, and Navy resource analyses. Continue to develop, update and maintain analytic baselines for the Major Combat Operations (MCO) based on Defense Planning Guidance.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Capability Based Assessments	2.506	2.732	2.797	2.864

FY 2006 ACCOMPLISHMENTS:
 Performed collaborative assessments with capability sponsors of their products. Proactively participated in Capability Sponsors' Integrated Processing Teams (IPTs). Presented opposing analytically-based points of view. Provided analytically-based decision recommendations to the Chief of Naval Operations (CNO) for both warfighting and support areas. Developed CNO Investment Strategy recommendations and conducted assessments for Program Review (PR)-07 and Program Objective Memorandum (POM)-08. Assessed capability sponsors' products for senior leadership decision forums. Conducted Verification, Validation & Accreditation (VV&A) of warfare, performance, and pricing models. Conducted Global War on Terrorism (GWOT) Capabilities-Based Assessment that provided a rapid and scalable process to utilize a Concept of Operations (CONOPS) and developed investment strategy and a capability roadmap. Conducted Tactical Aircraft (TACAIR) Recapitalization alternatives and Theater Ballistic Missile Defense (TBMD) cost capability trade off assessments. Conducted independent assessment of Anti-Submarine Warfare (ASW) . Conducted weapons safety and sea basing capabilities assessments. Conducted Intelligence-Surveillance-Reconnaissance (ISR) and Meteorological and Oceanographic (METOC) assessment to determine the optimal mix of naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support Major Combat Operations (MCOs), the GWOT, and intelligence preparation of the environment for both MCOs and GWOT.

FY 2007 PLAN:
 Continue to assess capability sponsors' products for Navy senior leadership decision forums. Continue to perform collaborative assessment with capability sponsors. Continue to proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Continue to present opposing analytically-based points of view to the CNO and Navy senior leadership. Continue to provide analytically-based decision recommendations to CNO for both warfighting and support areas. Continue to develop CNO Investment strategy recommendations and perform assessments for Program Review-09. Continue to assess capability sponsor's products for senior leadership decision forums. Continue to Conduct Verification, Validation & Accreditation (VV&A) of warfare, performance, and pricing models. Continue to conduct Global War on Terrorism (GWOT) Capabilities-Based Assessment that provided a rapid and scalable process to utilize a Concept of Operation (CONOPS) and develop investment strategy and a capability roadmap. Continue to conduct Tactical Aircraft (TACAIR) Recapitalization alternatives and Theater Ballistic Missile Defense (TBMD) cost capability trade off assessments. Continue to conduct independent assessment of Anti-Submarine Warfare (ASW) . Continue to conduct weapons safety and sea basing capabilities assessments. Continue to conduct Intelligence-Surveillance-Reconnaissance (ISR) and Meteorological and Oceanographic (METOC) assessment to determine the optimal mix of naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support Major Combat Operations (MCOs), the GWOT, and intelligence preparation of the environment for both MCOs and GWOT. Perform Capabilities-Based Assessments (CBAs) to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Capability Based Assessments (continued)				

FY 2008 PLAN:
 Continue to assess capability sponsors' products for Navy senior leadership decision forums. Continue to perform collaborative assessment with capability sponsors. Continue to proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Continue to present opposing analytically-based points of view to the CNO and Navy senior leadership. Continue to provide analytically-based decision recommendations to CNO for both warfighting and support areas. Continue to develop CNO Investment strategy recommendations and perform assessments for Program Review-09 and POM-10. Continue to assess capability sponsor's products for senior leadership decision forums. Continue to conduct Verification, Validation & Accreditation (VV&A) of warfare, performance, and pricing models. Continue to conduct Global War on Terrorism (GWOT) Capabilities-Based Assessment that provided a rapid and scalable process to utilize a Concept of Operation (CONOPS) and develop investment strategy and a capability roadmap. Continue to conduct Tactical Aircraft (TACAIR) Recapitalization alternatives and Theater Ballistic Missile Defense (TBMD) cost capability trade off assessments. Continue to conduct independent assessment of Anti-Submarine Warfare (ASW) . Continue to conduct weapons safety and sea basing capabilities assessments. Continue to conduct Intelligence-Surveillance-Reconnaissance (ISR) and Meteorological and Oceanographic (METOC) assessment to determine the optimal mix of naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support Major Combat Operations (MCOs), the GWOT, and intelligence preparation of the environment for both MCOs and GWOT. Continue to perform Capabilities-Based Assessments (CBAs) to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework.

FY 2009 PLAN:
 Continue to assess capability sponsors' products for Navy senior leadership decision forums. Continue to perform collaborative assessment with capability sponsors. Continue to proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Continue to present opposing analytically-based points of view to the CNO and Navy senior leadership. Continue to provide analytically-based decision recommendations to CNO for both warfighting and support areas. Continue to develop CNO Investment strategy recommendations and perform assessments for Program Review-11 and POM-12. Continue to assess capability sponsor's products for senior leadership decision forums. Continue to conduct Verification, Validation & Accreditation (VV&A) of warfare, performance, and pricing models. Continue to conduct Global War on Terrorism (GWOT) Capabilities-Based Assessment that provided a rapid and scalable process to utilize a Concept of Operation (CONOPS) and develop investment strategy and a capability roadmap. Continue to conduct Tactical Aircraft (TACAIR) Recapitalization alternatives and Theater Ballistic Missile Defense (TBMD) cost capability trade off assessments. Continue to conduct independent assessment of Anti-Submarine Warfare (ASW) . Continue to conduct weapons safety and sea basing capabilities assessments. Continue to conducted Intelligence-Surveillance-Reconnaissance (ISR) and Meteorological and Oceanographic (METOC) assessment to determine the optimal mix of naval ISR and METOC sensors, platforms, and processing, analysis and fusion disposition to support Major Combat Operations (MCOs), the GWOT, and intelligence preparation of the environment for both MCOs and GWOT. Continue to perform Capabilities-Based Assessments (CBAs) to meet the requirements of current and future scenarios, and make strategic decisions within a constrained economic framework.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program

	FY 06	FY07	FY08	FY09
Campaign Analysis - Modeling and Simulation	6.700	6.415	6.690	6.825

FY 2006 ACCOMPLISHMENTS:

Developed and maintained common baselines from which campaign excursions and mission-level analyses were executed. Identified, developed, and improved data and modeling. Led Navy's participation in Office of the Secretary of Defense (OSD)/Joint Staff analytic agenda, baseline development, and collection of data. Provided path and structure for coordination across the Navy. Broker agreed upon assumptions, Concept of Operations (CONOPS), scenarios and data. Lead campaign analysis for Office of the Chief of Naval Operations (OPNAV). Conducted modeling and simulation support for ongoing OPNAV missile defense analysis requirements. Established and managed authoritative data repository by locating best quality data for Modeling and Simulation (M&S) for use by Office of the Chief of Naval Operations (OPNAV) and Navy-Wide organizations.

FY 2007 PLAN:

Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. Identify, develop, and improve data and modeling. Continue to lead Navy's participation in Office of the Secretary of Defense (OSD)/Joint Staff analytic agenda, baseline development, and collection of data. Continue to provide coordination across the Navy. Continue to broker agreed upon assumptions, Concept of Operations (CONOPS), scenarios and data. Continue to lead campaign analysis for Office of the Chief of Naval Operations (OPNAV). Continue to conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements.

FY 2008 PLAN:

Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. Identify, develop, and improve data and modeling. Continue to lead Navy's participation in Office of the Secretary of Defense (OSD)/Joint Staff analytic agenda, baseline development, and collection of data. Continue to provide coordination across the Navy. Continue to broker agreed upon assumptions, Concept of Operations (CONOPS), scenarios and data. Continue to lead campaign analysis for Office of the Chief of Naval Operations (OPNAV). Continue to conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements.

FY 2009 PLAN:

Continue to develop and maintain common baselines from which campaign excursions and mission-level analyses are executed. Identify, develop, and improve data and modeling. Continue to lead Navy's participation in Office of the Secretary of Defense (OSD)/Joint Staff analytic agenda, baseline development, and collection of data. Continue to provide coordination across the Navy. Continue to broker agreed upon assumptions, Concept of Operations (CONOPS), scenarios and data. Continue to lead campaign analysis for Office of the Chief of Naval Operations (OPNAV). Continue to conduct modeling and simulation support for ongoing OPNAV missile defense analysis requirements.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program (Cont.)

	FY 06	FY 07	FY 08	FY 09
OSD/Joint Staff Study Analysis & Assessment	1.629	1.772	1.814	1.857

FY 2006 ACCOMPLISHMENTS:

Coordinated/led Office of the Secretary of Defense (OSD)/ Navy's analytic agenda in Defense Planning Scenario (DPS), Multi-Service Force Deployment (MSFD), Enhanced Planning Process (EPP), Strategic Planning Guidance (SPG), and participated in Capability Sponsors Integrated Processing Teams (IPTs). Provided overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Provided analytically-based decision recommendations to Chief of Naval Operations (CNO) for Joint warfighting and support areas. Conducted net assessments and provided independent analytic support to Navy's leadership in conjunction with various executive level decision forums. Served as the Navy's lead to Joint Requirements Oversight Council (JROC), Joint Capabilities Board (JCB), and Functional Capabilities Board (FCB). Provided the lead requirements and acquisition for Office of the Chief Naval Operations (OPNAV). Coordinated/led Navy role in Defense Planning Guidance (DPG), Program Decision Memoranda (PDM), Quadrennial Defense Review (QDR), and Defense Science Board (DSB) studies. Participated in Office of the Secretary of Defense (OSD) and Joint Staff analysis assessment and provided structure for coordination across the Navy. Coordinated and supported Joint Analytical Model Improvement Program (JAMIP).

FY 2007 PLAN:

Continue to coordinate/lead Office of the Secretary of Defense (OSD)/Navy's Analytic Agenda in Defense Planning Scenario (DPS), Multi-Service Force Deployment (MSFD), Enhanced Planning Process (EPP), Strategic Planning Guidance (SPG), and participate in Capability Sponsors' Integrated Processing Teams (IPTs). Continue to provide overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Continue to provide analytically-based decision recommendations to Chief of Naval Operations (CNO) for Joint warfighting and support areas. Continue to conduct net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums. Continue to serve as the Navy's lead to Joint Requirements Oversight Council (JROC), Joint Capabilities Board (JCB), and Functional Capabilities Board (FCB). Continue to provide the lead requirements and acquisition for Office of the Chief Naval Operations (OPNAV). Continue to coordinate/lead Navy role in Defense Planning Guidance (DPG), Program Decision Memoranda (PDM), Quadrennial Defense Review (QDR), and Defense Science Board (DSB) studies. Continued to participate in Office of the Secretary of Defense (OSD) and Joint Staff analysis assessment and provide structure for coordination across the Navy. Continued to coordinate and support Joint Analytical Model Improvement Program (JAMIP).

FY 2008 PLAN:

Continue to coordinate/lead Office of the Secretary of Defense (OSD)/Navy's Analytic Agenda in Defense Planning Scenario (DPS), Multi-Service Force Deployment (MSFD), Enhanced Planning Process (EPP), Strategic Planning Guidance (SPG), and participate in Capability Sponsors' Integrated Processing Teams (IPTs). Continue to provide overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Continue to provide analytically-based decision recommendations to Chief of Naval Operations (CNO) for Joint warfighting and support areas. Continue to conduct net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums. Continue to serve as the Navy's lead to Joint Requirements Oversight Council (JROC), Joint Capabilities Board (JCB), and Functional Capabilities Board (FCB). Continue to provide the lead requirements and acquisition for Office of the Chief Naval Operations (OPNAV). Continue to coordinate/lead Navy role in Defense Planning Guidance (DPG), Program Decision Memoranda (PDM), Quadrennial Defense Review (QDR), and Defense Science Board (DSB) studies. Continued to participate in Office of the Secretary of Defense (OSD) and Joint Staff analysis assessment and provide structure for coordination across the Navy. Continued to coordinate and support Joint Analytical Model Improvement Program (JAMIP).

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program (Cont.)

	FY 06	FY 07	FY 08	FY 09
OSD/Joint Staff Study Analysis & Assessment (continued)				

FY 2009 PLAN:

Continue to coordinate/lead Office of the Secretary of Defense (OSD)/Navy's Analytic Agenda in Defense Planning Scenario (DPS), Multi-Service Force Deployment (MSFD), Enhanced Planning Process (EPP), Strategic Planning Guidance (SPG), and participate in Capability Sponsors' Integrated Processing Teams (IPTs). Continue to provide overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Continue to provide analytically-based decision recommendations to Chief of Naval Operations (CNO) for Joint warfighting and support areas. Continue to conduct net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums. Continue to serve as the Navy's lead to Joint Requirements Oversight Council (JROC), Joint Capabilities Board (JCB), and Functional Capabilities Board (FCB). Continue to provide the lead requirements and acquisition for Office of the Chief Naval Operations (OPNAV). Continue to coordinate/lead Navy role in Defense Planning Guidance (DPG), Program Decision Memoranda (PDM), Quadrennial Defense Review (QDR), and Defense Science Board (DSB) studies. Continued to participate in Office of the Secretary of Defense (OSD) and Joint Staff analysis assessment and provide structure for coordination across the Navy. Continued to coordinate and support Joint Analytical Model Improvement Program (JAMIP).

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program (Cont.)

	FY 06	FY 07	FY 08	FY 09
World Class Modeling, Simulation, and Capability Analysis	9.060	9.162	9.381	9.606

FY 2006 ACCOMPLISHMENTS:

Supported the effort to take the Navy to the next level of achieving a "World Class" modeling, simulation, and analysis capability and represents a major move in the direction of integrating all department of the Navy Modeling and Simulation (M&S) activities to support the Office of the Chief of Naval Operations (OPNAV) staff and the Joint Analytic Agenda. Initiated development of new models in new mission areas which included Expeditionary Warfare (EXWAR), Command, Control, Communications, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR), Force Protection/Anti-Terrorism (FP/AT), Information Operations (IO), and Global War on Terrorism (GWOT). Conducted assessments of current model and made recommendation for improvements that better reflect Navy's developing capabilities. Conducted Verification, Validation, and Accreditation (VV&A) for selected Navy models. Provided the Navy with concise and innovative analyses and assessments of Navy models that help optimize Navy programs and investment decisions. Conducted research that emphasized combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasized the development of pricing performance models that related investments and manpower to output performance and readiness. Evaluated new models that were able to capture Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR) interaction with sea based forces and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Supported Fleet Readiness and Logistics modeling and simulation. Conducted Joint mission warfare M&S in the Sea Strike, FORCEnet Sea Shield, and Sea Basing mission areas. Conducted mission level warfare M&S of Joint Capability Areas.

FY 2007 PLAN:

Continue to provide the Navy with concise and innovative M&S analyses and assessment to help optimize Navy Programs and investment decisions. Continue to support next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Continue to evaluate new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR) interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Continue to support Fleet readiness and logistics M&S. Continue to conduct Verification, Validation, and Accreditation (VV&A) of select Navy models. Continue to improve the ability to model emerging security challenges and operations concepts (Irregular, Catastrophic, Disruptive challenges). Continue to develop optimization models that work across multiple warfare areas. Continue to improve the traceability of data through the modeling hierarchy. Continue to refine the linkages between cost and mission performance in performance-modeled acquisition programs. Continue to conduct Joint mission warfare M&S in the Sea Strike, FORCEnet Sea Shield, and Sea Basing mission areas. Continue to conduct mission level warfare M&S of Joint Capability Areas.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program (Cont.)

	FY 06	FY 07	FY 08	FY 09
World Class Modeling, Simulation, and Capability Analysis (continued)				

FY 2008 PLAN:

Continue to provide the Navy with concise and innovative Modeling and Simulation (M&S) analyses and assessment to help optimize Navy Programs and investment decisions. Continue to support next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Continue to evaluate new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR) interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Continue to support Fleet readiness and logistics M&S. Continue to conduct Verification, Validation, and Accreditation (VV&A) of select Navy models. Continue to improve the ability to model emerging security challenges and operations concepts (Irregular, Catastrophic, Disruptive challenges). Continue to develop optimization models that work across multiple warfare areas. Continue to improve the traceability of data through the modeling hierarchy. Continue to refine the linkages between cost and mission performance in performance-modeled acquisition programs. Continue to conduct Joint mission warfare M&S in the Sea Strike, FORCEnet Sea Shield, and Sea Basing mission areas. Continue to conduct mission level warfare M&S of Joint Capability Areas.

FY 2009 PLAN:

Continue to provide the Navy with concise and innovative M&S analyses and assessment to help optimize Navy Programs and investment decisions. Continue to support next generation research that emphasizes combat modeling, simulation, war gaming, and analysis in support of strategic, operational, and resource decision making and emphasizes the development of pricing performance models that relate investments and manpower to output performance and readiness. Continue to evaluate new models that are able to capture Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR) interaction with sea based forces, and the challenges of new form of threat including terrorist, disruptive, and catastrophic. Continue to support Fleet readiness and logistics M&S. Continue to conduct Verification, Validation, and Accreditation (VV&A) of select Navy models. Continue to improve the ability to model emerging security challenges and operations concepts (Irregular, Catastrophic, Disruptive challenges). Continue to develop optimization models that work across multiple warfare areas. Continue to improve the traceability of data through the modeling hierarchy. Continue to refine the linkages between cost and mission performance in performance-modeled acquisition programs. Continue to conduct Joint mission warfare M&S in the Sea Strike, FORCEnet Sea Shield, and Sea Basing mission areas. Continue to conduct mission level warfare M&S of Joint Capability Areas.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 2221 Assessment Program

C. OTHER PROGRAM FUNDING SUMMARY:

Not Applicable.

D. ACQUISITION STRATEGY:

Not Applicable.

E. MAJOR PERFORMERS:

Science Applications International Corporation (SAIC), McLean, VA, supports the Chief of Naval Operations (CNO) assessment program, mission capability packages processes, and modeling and simulation and analytically based warfare analyses that provides the basis for decision making with respect to alternative weapons systems; Concept of Operations (CONOPS) and force packages; Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems, FORCEnet; warfare systems (Sea Strike, Sea Shield, and Sea Basing); integration and force structure; and warfighting support.

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support			PROJECT NUMBER AND NAME 3025 MID-RANGE FINANCIAL IMPROVEMENT PLANS			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	1.951	1.520	1.609	1.581	1.644	1.675	1.691	1.707
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

One of DoD's and Navy's priority goals is to gain a clean and auditable financial statement by FY 2007. The OSD Comptroller, in his 8 August 2003 memorandum, directed the Military Departments and Defense Agencies, in coordination with the Defense Finance and Accounting Service (DFAS), to prepare a comprehensive mid-range financial improvement plan to identify measurable steps to ensure each material line is auditable, and ensure all major deficiencies are resolved.

This project supports the Research, Development, Test and Evaluation, Navy (RDT&E,N) and Office of Naval Research (ONR) portion of the larger DoD and Navy-wide effort to implement the Financial Improvement Plan (FIP). Corrective actions required to resolve known deficiencies and determine resource requirements (people and systems) have been identified. Funding beyond FY 2007 is for the sustainment of the clean and auditable statement for RDT&E,N.

Performance Metrics:

Financial records must become compliant in accordance with the Chief Financial Officers Act.

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3025 MID-RANGE FINANCIAL IMPROVEMENT PLANS
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	-----------------------------------------------------------------------

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 06	FY 07	FY 08	FY 09
Financial Improvements	1.951	1.520	1.609	1.581

FY 2006 ACCOMPLISHMENTS:

- Posted obligations within the reporting period in which they were incurred.
- Expanded the practice of having major contracting activities post awards electronically to Standard Accounting and Reporting System (STARS).
- Performed obligation validations to ensure that posted obligations were accurate. With the sheer volume of obligation documents to validate, this was a labor intensive effort requiring follow-up work to electronically requested validations.
- Revised accounts receivable process to more accurately record collections. Utilized the Overnight Collections History special reports available via the East Coast Computer Associates (CA) -View region.
- Manually recorded accounts payable (AP) when materials or services were received and accepted. When a functional AP input screen in the accounting system (STARS-HCM) was available, developed a process to gather receipt/acceptance data from logistical operations side of the house and/or contractors.
- Monitored duplication in vendor pay accounting system, STARS One Pay, as invoices were settled.
- Eliminated problem disbursements older than 120 days, narrowing to 60 days and potentially narrowing even further.

FY 2007 PLANS:

- Continue all efforts of FY06 less those noted as completed above.

FY 2008 PLANS:

- Continue all efforts of FY07 less those noted as completed above.

FY 2009 PLANS:

- Continue all efforts of FY08 less those noted as completed above.

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3025 MID-RANGE FINANCIAL IMPROVEMENT PLANS
-------------------------------------------------------------	---------------------------------------------------------------------------------------------	-----------------------------------------------------------------------

C. OTHER PROGRAM FUNDING SUMMARY:

Navy Related RDT&E:

PE 0605013N (Information Technology Development)

PE 0605861N (RDT&E Science and Technology Management)

Non-Navy Related RDT&E:

Not Applicable

D. ACQUISITION STRATEGY:

Not Applicable

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support			PROJECT NUMBER AND NAME 3039 CHENG			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	13.614	15.285	17.200	16.950	17.352	17.768	18.090	18.421
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Project 3039 funds the Assistant Secretary of the Navy (ASN) for Research, Development and Acquisition (RD&A), ASN RD&A Chief Engineer (RDA CHENG) to develop and implement architecture-based systems engineering processes, methods and tools that assure integrated and interoperable systems are delivered to the fleet. This project provides the mission-oriented technical basis for implementing capability-based acquisition management within the Department of Navy (DoN) to engineer and field Navy and Marine Corps combat systems, weapon systems, and command, control, communications, computers and intelligence (C4I) programs that must operate as family-of-systems (FoS) or system-of-systems (SoS). The focus of this project is on identifying the functions, relationships, and connections between systems at both the force and unit level and across warfare mission areas, and encompasses three key elements: Systems Engineering to provide the framework for making engineering decisions by warfighting capability at the FoS/SoS level and supports consistent engineering and investment decision-making across Navy and Marine Corps programs within capability-based acquisition portfolios. Naval Collaborative Engineering Environment development and implementation as a DON enterprise resource for Naval integration and interoperability information to enable collaboration and decision support among Fleet organizations, Program Executive Offices, Program Managers, Systems Commands, prime contractors, Resource/Warfare Sponsors and Comptroller organizations. Standards, Policies and Guidelines engineering and technical staff to implement DoN, OSD and Joint integration and interoperability and Anti-Tamper initiatives. Program increase in fiscal year 2007 implements DoN Anti-Tamper program to protect critical technology investments.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Standards, Policy, and Guidelines	3.433	4.227	5.008	5.030

FY 2006 ACCOMPLISHMENTS:

- Continued alignment of standards, policy, and guidelines across the Naval Enterprise and with OSD and Joint Service organizations. Develop the data structure, process and collaborative engineering tools.
- Provided an integrated quick reference roadmap for acquisition programs on how the policies and programs fit together and provide a comprehensive summary of standards, policy, and guidelines, known issues, processes and specific engineering products for Global Information Grid (GIG) Systems Engineering, Joint Theater Air and Missile Defense Office (JTAMDO), DOD Information Technology Standards Registry (DISR), Information Support Plan (ISP) and Net Enabled Command Compatibility (NECC).
- Initiated technical alignment of Navy FORCEnet (now Naval Power 21) and Open Architecture (OA) standards with DISR standards.
- Continued to represent ASN RD&A in the OSD Systems Engineering Forums to address the impact of System-of-Systems (SOS) engineering policy in acquisition.
- Developed Naval Power 21 Integration and Interoperability Management Plan and update SECNAV Instruction 5000.2 and DISR standards.
- Conducted ISP and Net-Ready Key Performance Parameter (NR-KPP) assessments.

FY 2007 PLAN:

- Continue alignment of standards, policy, and guidelines across the Naval Enterprise and with OSD and Joint Service organizations. Continue data structure, process and collaborative engineering tools for specified initiatives.
- Continue the integrated quick reference roadmap for acquisition programs on how the policies and programs fit together and provide a comprehensive summary of standards, policy, and guidelines, known issues, processes and specific engineering products for GIG Systems Engineering, JTAMDO, DISR, ISP and NECC.
- Continue technical alignment of Navy Naval Power 21 and OA standards with DISR standards. Establish technical warrant holder roles and responsibilities for information technology standards.
- Continue to represent ASN RD&A in the OSD Systems Engineering Forums to address the impact of SOS engineering policy in acquisition.
- Complete Naval Power 21 Integration and Interoperability Management Plan development. Update SECNAV Instruction 5000.2. Complete Navy Standards Working Group Draft Standard Operating Procedure.
- Complete ISP and NR-KPP assessments.
- Work with the DOD Anti-Tamper Executive Agent on DON policy and Implementation. Select and evaluate anti-tamper technologies in designated areas of interest.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Standards, Policy, and Guidelines - Continued				

FY 2008 PLAN:

- Continue alignment of standards, policy, and guidelines across the Naval Enterprise and with OSD and Joint Service organizations. Continue data structure, process and collaborative engineering tools for specified initiatives.
- Continue the integrated quick reference roadmap for acquisition programs on how the policies and programs fit together and provide a comprehensive summary of standards, policy, and guidelines, known issues, processes and specific engineering products for Global Information Grid (GIG) Systems Engineering, Joint Theater Air and Missile Defense Office (JTAMDO), DOD Information Technology Standards Registry (DISR), Information Support Plan (ISP) and Net Enabled Command Compatibility (NECC).
- Complete technical alignment of Navy Naval Power 21 and OA standards with DISR standards and technical warrant holder roles and responsibilities for information technology standards.
- Continue to represent ASN RD&A in the OSD Systems Engineering Forums to address the impact of SOS engineering policy in acquisition.
- Complete Naval Power 21 Integration and Interoperability Management Plan development and Navy Standards Working Group Draft Standard Operating Procedure.
- Initiate ISP and NR-KPP implementation plans.
- Continue working with the DOD Anti-Tamper Executive Agent on DON policy and Implementation. Select and evaluate anti-tamper technologies in designated areas of interest.

FY 2009 PLAN:

- Continue alignment of standards, policy, and guidelines across the Naval Enterprise and with OSD and Joint Service organizations. Continue data structure, process and collaborative engineering tools for specified initiatives.
- Continue the integrated quick reference roadmap for acquisition programs on how the policies and programs fit together and provide a comprehensive summary of standards, policy, and guidelines, known issues, processes and specific engineering products for GIG Systems Engineering, JTAMDO, DISR, ISP and NECC.
- Develop Naval Power 21 and OA standards policy updates for alignment of Navy with DISR standards and technical warrant holder roles and responsibilities.
- Continue to represent ASN RD&A in the OSD Systems Engineering Forums to address the impact of SOS engineering policy in acquisition.
- Develop Naval Power 21 Integration and Interoperability Management Plan policy updates.
- Continue ISP and NR-KPP implementation plans.
- Continue working with the DOD Anti-Tamper Executive Agent on DON policy and Implementation. Select and evaluate anti-tamper technologies in designated areas of interest.
- Continue work with DOD Institutional Reform & Governance Agent on DOD/DON policy and implementation.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Naval Collaborative Engineering Environment (NCEE)	3.000	3.000	2.922	2.929

FY 2006 ACCOMPLISHMENTS:

- Continued to develop and implement external interfaces to the Naval Collaborative Engineering Environment (NCEE) with authoritative DON data bases: complete pilot to implement Naval Air Systems Command (NAVAIRSYSCOM) - U.S. Marine Corp Command Development Center (MCCDC) - Marine Corps - Naval Collaborative Engineering Environment (MARCOR-NCEE) data integration; participate in the Defense Architecture Repository System (DARS) testing phase on operational data; complete the Acquisition Security Database (ASDB) and ASN RD&A Dashboard proof of concepts.
- Continued Interoperability Data Management and Analysis: update the acquisition milestone document automation process; complete concept definition; initiate a semi-automated capability prototype.
- Continued Integrated Engineering Environment support to System-of-Systems (SOS) System Engineering Integrated Product Team (SE IPTs), Program Offices and Systems Commands: complete Supervisor of Shipbuilding requirement database; continue Anti-Submarine Warfare (ASW) Integrated Product Team (IPT) and NAVAIRSYSCOM Systems Engineering Resource Center (SERC); initiate the Open Architecture (OA) Experiment Team and OA Surface Domain technical support.
- Continued integrated engineering environment tool integration development and updates for Core Architecture Data Model (CADM) eXtensible Markup Language (XML), System Architect, CORE and DOORS plug ins.
- Completed coordination with OA programs on the development of an Open Architecture (OA) Assess Repository (OAAR) with web interface (including industry access) for asset control and OA software reuse test cases. Complete test cases for aircraft carrier Tactical Support Center, Ship Grid System/Auto Correlation, DDX Destroyer, Ship Self Defense System (SSDS) and AEGIS programs.
- Continued to evolve the Decision Support Environment: initiate a Naval Architecture Repository (NAR) prototype to automate the architecture data management process; continue to organize and transition Navy enterprise-wide websites and workspaces.

FY 2007 PLAN:

- Continue to develop and implement external interfaces to the NCEE with authoritative DON data bases: continue DARS testing phase on system data; initiate Program Office interface; complete ASDB and ASN RD&A Dashboard prototypes.
- Continue Interoperability Data Management and Analysis: complete the semi-automated capability and automated capability prototype; initiate deployment to programs of interest.
- Continue Integrated Engineering Environment support to SOS SE IPTs, Program Offices and Systems Commands: complete ASW IPT; continue NAVAIRSYSCOM SERC and OA Experiment Team; complete OA Surface Domain technical support.
- Continue integrated engineering environment tool integration development: complete CADM XML and System Architect; update CORE and DOORS; initiate Visio and Bonapart.
- Continue to evolve the Decision Support Environment: complete NAR prototype and begin NAR capability deployment to Program Managers; continue to organize and transition enterprise-wide websites and workspaces; initiate the Chief Engineer Architect Tool for Engineering Review (CHEATER) prototypes.
- Begin Naval Force Development System (NFDS) implementation support; extend capabilities to other services and agencies to support joint initiatives.
- Continue technical support for building the OAAR and its use by associated OA government and industry stakeholders.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Naval Collaborative Engineering Environment (NCEE)				
(continued)				

FY 2008 PLAN:

- Continue to develop and implement external interfaces to the Naval Collaborative Engineering Environment (NCEE) with authoritative DON data bases: continue Defense Architecture Repository System (DARS) testing phase on technical data; continue Program Office interface; initiate Joint Forces Command database interface.
- Continue Interoperability Data Management and Analysis: update acquisition milestone document automation process and capabilities; complete deployment to programs of interest.
- Continue Integrated Engineering Environment support to Systems Engineering Integrated Product Teams (SE IPTs), Program Offices and Systems Commands: continue Naval Air Systems Command (NAVAIRSYSCOM) Systems Engineering Resource Center (SERC) and Open Architecture (OA) Experiment Team technical support; initiate Naval Sea Systems Command (NAVSEASYSKOM) programs technical support.
- Continue integrated engineering environment tool integration development: complete Visio and Bonapart plug ins; update CADM XML, System Architect, CORE and DOORS plug ins; initiate SLATE plug in.
- Continue to evolve the Decision Support Environment: deploy Naval Architecture Repository (NAR) prototype; complete Chief Engineer Architect Tool for Engineering Review (CHEATER) prototype; continue to organize and transition enterprise-wide websites and workspaces.

FY 2009 PLAN:

- Continue to develop and implement external interfaces to the NCEE with authoritative DON data bases: continue Defense Architecture Repository System (DARS) interface; continue Program Office interface; continue Joint Forces Command database interface.
- Continue Interoperability Data Management and Analysis: monitor and update acquisition milestone document automation capabilities to programs of interest; initiate cross-domains and cross-functional areas interoperability data management.
- Continue Integrated Engineering Environment support to Systems Engineering Integrated Product Teams (SE IPTs), Program Offices and Systems Commands: continue Naval Air Systems Command (NAVAIRSYSCOM) Systems Engineering Resource Center (SERC), Open Architecture (OA) Experiment Team, and NAVSEA programs technical support.
- Continue integrated engineering environment tool integration development: complete SLATE plug in; update CADM XML, System Architect, CORE, DOORS, Visio, and Bonapart plug ins.
- Continue to evolve the Decision Support Environment: continue Naval Architecture Repository (NAR) deployment for enterprise architectures review; deploy Chief Engineer Architect Tool for Engineering Review (CHEATER); continue to organize and transition enterprise-wide websites and workspaces.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Systems Engineering	7.181	8.058	9.270	8.991

FY 2006 ACCOMPLISHMENTS:

- Managed and evolve DON architecture governance process, guidance and relationship with Joint and OSD architecture processes.
- Performed integrated architecture assessments as the basis for representing a Naval architecture for use in Joint and OSD communities.
- Completed Naval Architecture Taxonomy standardization and the integration and validation of Sea Power 21 and Marine Corps Strategy 21 pillar architectures against Joint and Global Information Grid (GIG) integrated architectures.
- Continued Navy technical support to OSD and Joint engineering initiatives: Software Acquisition Process Improvement (Section 804), Software Assurance Tiger Team, and DOD Architecture Framework (DODAF) v2, DOD Acquisition Repository System (DARS) and Executable Architectures development board.
- Developed and promulgate Volume II of the Naval Capabilities Evolution Process Guidebook (now System of Systems (SOS) Systems Engineering Guidebook) to include architecture best practices.
- Continued technical support to on going Wideband Navy Waveform and Anti-Submarine Warfare (ASW) System System-of-Systems (SOS) System Engineering Integrated Product Teams (SE IPTs) and initiate new SE IPTs to support CNO priority capability needs.
- Provided technical support for development of acquisition milestone documentation and Integration and Interoperability Risk Identification assessments in support of DD (X) Destroyer, Advanced Deployable System (ADS), Landing, Helo and Assault (LHA (R)), Deployable Joint Command and Control System (DJC2) and Littoral Combat Ship (LCS) Program Executive Offices.
- Developed and promulgate guidance implementing OSD and DON systems engineering revitalization recommendations.
- Initiated Naval Force Development System (NFDS) assessment finding implementation and associated changes to SECNAVINST 5000.2C acquisition, capabilities, policies and procedures.

FY 2007 PLAN:

- Authenticate Naval Power 21 capabilities-based, Integrated Architecture product assessments; develop the Naval Architecture Repository System (NARS) and technical views to support decision-making; formalize integrated architecture training at the Defense Acquisition University.
- Expand the Naval Architecture Reference Guide to include 12 element lists. Provide an automated architecture alignment check and architecture development guidance for Program Managers. Issue SECNAV architecture policy.
- Continue Software Acquisition Process Improvement (Section 804) initiative and begin pilot project implementation.
- Revise the SOS Systems Engineering Guidebook Volumes I and II to address specialty engineering functions, e.g. Human Systems Integration, Safety.
- Initiate and establish SOS SE IPTs for Battlespace Networks, Mine Warfare and Missile Defense Agency to support CNO priority capability needs.
- Continue acquisition milestone review documentation to assess Integration and Interoperability in Information Support Plans, Systems Engineering Plans and Risk Assessments and incorporate results in the ASN Research, Development and Acquisition Dashboard.
- Deliver the final NFDS assessment report. Assess Department of Navy mission and capability roadmaps for alignment with joint concepts and doctrines. Develop a roadmap reconciliation report.
- Develop and execute the systems engineering section of the NP 21 Integration and Interoperability Management Plan.
- Establish technical warrant holder roles and responsibilities at the mission and capability level.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
Systems Engineering - (continued)				

FY 2008 PLAN:

- Continue to authenticate Naval Power 21 capabilities-based Integrated Architecture product assessments; develop the Naval Architecture Repository System (NARS) and technical views to support decision-making.
- Continue Software Acquisition Process Improvement (Section 804) pilot project implementation.
- Complete System-of-Systems (SOS) Systems Engineering (SE) Guidebook Volumes I and II to address specialty engineering functions to include Human Systems Integration ,Safety, etc.
- Continue SOS SE Integrated Product Team (IPTs) for Battlespace, Mine Warfare and Missile Defense Agency to support CNO priority capability needs.
- Continue acquisition milestone review documentation to assess Integration and Interoperability in Information Support Plans, Systems Engineering Plans and Risk Assessments and incorporate results in the ASN Research, Development and Acquisition Dashboard.
- Develop and promulgate integrated architecture roadmap with Mission Capability Package System View 8 and Capability Evolution Document.
- Continue NP 21 Integration and Interoperability Management Plan implementation.
- Complete mission and capability technical warrant holder roles and responsibilities.

FY 2009 PLAN:

- Continue to authenticate Naval Power 21 capabilities-based Integrated Architecture product assessments; complete the Naval Architecture Repository System (NARS) and technical views to support decision-making.
- Continue Software Acquisition Process Improvement (Section 804) implementation.
- Continue SOS SE Integrated Product Team (IPTs) for Battlespace, Mine Warfare and Maritime Defense Awareness or any other high priority mission, capability, and/or platform oriented integration to support CNO priority capability needs.
- Continue acquisition milestone review documentation to assess Integration and Interoperability in Information Support Plans, Systems Engineering Plans and Risk Assessments and incorporate results in the ASN Research, Development and Acquisition Dashboard.
- Implement Naval process for aligning and reusing ISP architecture information, approve ACAT 1C and 2 ISP's, act as lead agency for review of ISPs received via OSD/JCIDS
- Continue development and promulgation of integrated architecture roadmap with Mission Capability Package System View 8 and Capability Evolution Document.
- Continue NP 21 Integration and Interoperability Management Plan (I&IMP) implementation.
- Conduct annual Capability Planned Assessment (CPA).
- Review all Engineering Change Proposals which may impact systems across functional areas.
- Develop and disseminate M&S executable modeling process for System of Systems.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHENG

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name: Not Applicable

D. ACQUISITION STRATEGY: Not Applicable

E. MAJOR PERFORMERS:

Anteon Corporation, Fairfax, VA - Primary professional and technical support services contract.
 Naval Surface Warfare Center, Dahlgren, VA - Conduct Navy enterprise-wide open architecture experiment to identify metrics and enable component testing for interoperability.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605856N
PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
Total PE	3,253	3,334	3,452	3,621	3,710	3,791	3,862	3,935
0128 MANAGEMENT AND TECHNICAL STRATEGIC SUPPORT	1,222	1,250	1,310	1,350	1,386	1,418	1,444	1,471
1038 ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT	2,031	2,084	2,142	2,271	2,324	2,373	2,418	2,464

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element supports technical studies and analyses as directed by the Director for Submarine Warfare to support major policy and procurement decisions. This program is divided into two elements to support decision making in the areas of submarine and antisubmarine warfare and undersea surveillance.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605856N
PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2007 President's Budget Submission	3,400	3,347	3,453	3,614
Congressional Adjustments	2	-13	0	0
Functional Realignment for OPNAV Program Support Costs	-62	0	0	0
Non-Pay Inflation Adjustments	0	0	0	1
Program Adjustments	0	0	-1	5
Rate Adjustments	0	0	0	1
SBIR Assessment	-87	0	0	0
FY 2008/FY 2009 President's Budget Submission	3,253	3,334	3,452	3,621

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

E. PERFORMANCE METRICS:

This program element supports studies in the area of undersea surveillance missions, sensor system, payloads, force employment, communications, acoustic performance prediction systems, environmental and medical effects of acoustics systems including installations/removals, operational security and future threat analysis. Program success is measured through analytical results and constant interaction with the contractors that enable the Director for Submarine Warfare to make his decisions effectively. In addition, it provides research and reports necessary to support Surveillance Towed Array Sonar Systems (SURTASS) Low Frequency Active (LFA) sonar compliance with Federal, State and Local environmental laws required for continued SURTASS LFA operations, analysis of undersea technology for application for future undersea surveillance capabilities,

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605856N
PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

and assessment of current and future Integrated Undersea Surveillance System (IUSS) warfare areas and potential allied Navy contributions. To this goal, research is conducted by educational and research institutions renown for their expertise in the area, and by marine mammal biologists with extensive background in specific areas of underwater acoustics. This approach is deemed the most cost effective and efficient course of action for the Navy.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605856N PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT
 PROJECT NUMBER: 0128 PROJECT TITLE: MANAGEMENT AND TECHNICAL STRATEGIC SUPPORT

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0128 MANAGEMENT AND TECHNICAL STRATEGIC SUPPORT	1,222	1,250	1,310	1,350	1,386	1,418	1,444	1,471

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides analytical support to the Director, Submarine Warfare Division as a basis for major policy, planning and acquisition program decisions. It supports the development of the Submarine Force strategic vision to guide research and development investment strategy and future planning. Additionally, this line supports studies in the area of submarine and undersea surveillance missions, force structure, payloads and sensors and force employment.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
MANAGEMENT AND TECHNICAL SUPPORT, STRATEGIC	1,222	1,250	1,310	1,350

FY 2006 Accomplishments:

- Continued to examine specific applications for submarine mine countermeasures and develop a strategy for ensuring submarine access to contested areas of the world.
- Continued to assess the strategic deterrence (conventional and nuclear) force structure, security, and capability in the Navy.
- Continued to perform an in-depth review of undersea warfare research and development requirements, past and present, and propose an investment strategy to maximize future capabilities.
- Continued to assess implications of current and developing technologies on undersea warfare in both near and far term systems and develop strategic concepts to guide future acquisitions through partnership with the Naval Postgraduate School.
- Continued to assess the submarine forces capabilities in view of emerging technologies and changes in joint and naval strategies. This will be used to develop capability based ideas and concepts to guide research and development and science and technology efforts.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605856N

PROJECT NUMBER: 0128

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

PROJECT TITLE: MANAGEMENT AND TECHNICAL STRATEGIC SUPPORT

- Continued reviews of various submarine operations to assess the safety and security of the ships and missions assigned to identify the problems that require further analysis and study.

FY 2007 Plans:

- Continue all efforts of FY06.

FY 2008 Plans:

- Continue all efforts of FY07.

FY 2009 Plans:

- Continue all efforts of FY08.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605856N PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT
 PROJECT NUMBER: 1038 PROJECT TITLE: ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
1038 ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT	2,031	2,084	2,142	2,271	2,324	2,373	2,418	2,464

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides analytical support to the Director, Submarine Warfare Division and the Integrated Undersea Surveillance System (IUSS) Branch Head as a basis for major policy, planning, and acquisition program decisions. It supports studies in the area of undersea surveillance missions, sensor system, communications, acoustic performance prediction systems, environmental and medical effects of acoustic systems including installations/removals, operational security, and future threat analysis. Supports synthetic mission lay down simulations for IUSS strategic planning and resource allocation. Continues development/documentation of architecture for future undersea surveillance capabilities. Supports studies to determine long-term impact of IUSS active sensors on marine animals and development of Surveillance Towed Array Sonar Systems (SURTASS) Low Frequency Active (LFA) Supplemental Environmental Impact Statement (EIS).

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
ACOUSTIC AND NON-ACOUSTIC ANALYSIS SUPPORT	2,031	2,084	2,142	2,271

FY 2006 Accomplishments:

- Initiated planning and execution of Phase I of deep diving odontocete behavioral response study research strategy; in concert with ONR, oil industry, and United Kingdom (U.K.) support.
- Completed and filed Draft Supplemental EIS for SURTASS LFA.
- Completed and submitted application for 2nd 5-year Rule for SURTASS LFA under the Marine Mammal Protection Act (MMPA).
- Completed and submitted Biological Assessment for consultation under the Endangered Species Act (ESA) for 2nd 5-year Rule for SURTASS LFA.
- Completed field research for possible update to the guidelines for divers' exposure to underwater low frequency (LF) sound.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605856N

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

PROJECT NUMBER: 1038

PROJECT TITLE: ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT

- Completed analysis of and, response to, comments on Draft Supplemental EIS for SURTASS LFA.
- Completed field research to determine the potential physiological and behavioral impacts of LFA on fish.
- Continued preparation of Final Supplemental EIS for SURTASS LFA.
- Continued support for 2nd 5-year rule making under the MMPA and associated ESA consultation for SURTASS LFA.
- Continued analyses to estimate the long-term effects of SURTASS LFA on marine mammals.
- Continued environmental compliance support for issuance of annual Letters of Authorization (LOA) under the MMPA and required quarterly reporting for SURTASS LFA vessels.
- Continued monitoring of undersea technology for application for future undersea surveillance capabilities.
- Continued assessment of current and future IUSS warfare areas and potential allied Navy contributions.

FY 2007 Plans:

- Initiate planning and execution of Phase II of deep diving odontocete behavioral response study research strategy; in concert with ONR, oil industry, and U.K. support.
- Initiate environmental compliance requirements and actions pertinent to Compact Low Frequency Active (CLFA) at-sea testing, training and operations.
- Initiate post-mission engineering analysis of SURTASS acoustic data.
- Initiate and complete review and concurrence on National Marine Fisheries Service (NMFS) biological Opinion and Incidental Take Statements (based on Navy-submitted Biological Assessment).
- Initiate and complete assistance to NMFS for response to comments on the Draft Proposed Rule.
- Complete and file Final Supplemental EIS for SURTASS LFA.
- Complete rule making processes for 2nd 5-year rule and LOAs under the MMPA and associated ESA consultation for SURTASS LFA.
- Complete planning and execution of Phase I of deep diving odontocete controlled exposure experiment research strategy; in concert with ONR, possibly oil industry, and U.K./international support.
- Continue all efforts of FY06 less those noted as completed above.

FY 2008 Plans:

- Complete planning and execution of Phase II of deep diving odontocete behavioral response study research strategy; in concert with ONR, oil industry, and U.K. support.
- Continue all efforts of FY07 less those noted as complete above.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605856N

PROJECT NUMBER: 1038

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

PROJECT TITLE: ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT

FY 2009 Plans:

- Continue all efforts of FY08, less those noted as complete above.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605861N
PROGRAM ELEMENT TITLE: RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
Total PE	65,278	66,731	68,180	69,539	71,106	72,613	74,169	75,769
0135 ONR SCIENCE AND TECHNOLOGY MANAGEMENT	62,464	63,431	64,770	66,134	67,578	69,037	70,563	72,133
2353 R&D DFAS BILLINGS	2,814	3,300	3,410	3,405	3,528	3,576	3,606	3,636

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element (PE) covers Office of Naval Research (ONR) corporate expenses including salaries, utilities, printing, supplies, materials, Information Technology (IT), general support equipment and other day-to-day logistical costs. The vast majority of these items represent fixed costs associated with Scientists and Engineers supporting the Navy's Science and Technology (S&T) Programs.

The Defense Finance and Accounting Service (DFAS) Billings project (2353) funds accounting services provided to ONR and Navy Research and Development (R&D) activities.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605861N
PROGRAM ELEMENT TITLE: RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2007 President's Budget Submission	62,531	67,328	69,735	71,235
Congressional Adjustments	71	-253	0	0
Execution Adjustments	1,216	0	0	0
Functional Realignment for OPNAV Program Support Costs	1,599	0	0	0
Pay Raise Adjustment	0	0	252	355
Program Adjustments	0	-344	-1,043	-1,036
Program Realignment	0	0	-764	-1,015
SBIR Assessment	-139	0	0	0
FY 2008/FY 2009 President's Budget Submission	65,278	66,731	68,180	69,539

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Project 0135 increases in FY07 and out due to functional realignment for OPNAV Program Support Costs and the functional transfer of Office of General Counsel (OGC) Patent Intellectual Property Attorney from Commander Naval Forces Europe.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

E. PERFORMANCE METRICS:

This PE funds operating costs for ONR's mission. Program performance is measured by attaining financial benchmarks for planned obligations vs. actual obligations and planned expenditures vs. actual expenditures.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605861N

PROJECT NUMBER: 0135

PROGRAM ELEMENT TITLE: RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT

PROJECT TITLE: ONR SCIENCE AND TECHNOLOGY MANAGEMENT

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0135 ONR SCIENCE AND TECHNOLOGY MANAGEMENT	62,464	63,431	64,770	66,134	67,578	69,037	70,563	72,133

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports ONR leadership, management and direction for the Naval S&T program. This project funds ONR Corporate salaries, utilities, supplies, and other fixed costs at ONR Headquarters and field offices. ONR sponsors scientific advances, which lead to Future Naval Capabilities (FNC's), supporting the Fleet's ability to operate from a position of technological superiority. Functions performed include (1) scientific and technical direction of the nationwide 6.1 basic research program with colleges, universities, non-profit organizations and Naval Laboratories and Warfare Centers; (2) scientific and technical direction of the 6.2 applied research program through the Naval R&D laboratories and Warfare Centers and industry; (3) scientific and technical direction of the Naval 6.3 advanced technology development program through the Navy's R&D laboratories, Warfare Centers and industry; (4) management, resource formulation, program assessment, and contract negotiation/administration of the Navy basic research, applied research and advanced technology development program; and (5) coordination of the Navy's Technology Base program within the context of total DoD/Government (e.g., National Science Foundation, National Academy of Sciences) R&D initiatives in order to maximize scientific advances. This project also supports ONR management and direction for the following Navy-wide programs: Small Business Innovation Research, Naval Research Advisory Committee, Navy Patent Program, Historically Black Colleges and Universities/Minority Institutions Program, Navy Manufacturing Technology Program and the Ballistic Missile Submarine Nuclear (SSBN) Security Technology Program. In addition, this project supports ONR's Navy-wide responsibilities in the negotiation and establishment of indirect cost rates for DoD-assigned universities and performance of contract administration for all DoD contracts/grants at all colleges and universities.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605861N

PROJECT NUMBER: 0135

PROGRAM ELEMENT TITLE: RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT

PROJECT TITLE: ONR SCIENCE AND TECHNOLOGY MANAGEMENT

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
S&T MANAGEMENT SUPPORT	62,464	63,431	64,770	66,134

• The project provides for all basic costs and support of ONR Headquarters and its field activities in support of the entire Navy S&T program. Almost all the funds in this project are fixed costs, such as salaries, and communications. Specifically, it pays the salaries of Scientific and Engineering personnel who direct the execution of the Navy's basic research, applied research, and advanced technology development programs at the nation's universities/colleges, Navy laboratories, Warfare Centers, and private industry.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605861N

PROJECT NUMBER: 2353

PROGRAM ELEMENT TITLE: RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT

PROJECT TITLE: R&D DFAS BILLINGS

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
2353 R&D DFAS BILLINGS	2,814	3,300	3,410	3,405	3,528	3,576	3,606	3,636

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funding for accounting services provided to the Office of Naval Research and other Navy research and development activities by the Defense Finance and Accounting Service (DFAS).

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
TRANSACTIONS PROCESSED IN SUPPORT OF DON R&D	2,814	3,300	3,410	3,405

- This project funds the DFAS bill for transactions processed in support of Department of the Navy R&D activities. Specific services include payroll, transportation, commercial invoices, travel, maintenance of trial balances, associated accounting and reporting.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

Exhibit R-2, RDT&E,N Budget Item Justification

Date: February 2007

Appropriation/Budget Activity RDT&E,N BA 6				R-1 Item Nomenclature: RDT&E,N Instrumentation Modernization 0605862N				
Cost (\$ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	\$1,571	\$1,238	\$1,423	\$1,483	\$1,530	\$1,567	\$1,596	\$1,627
Medical Force Protection/3047	\$1,571	\$1,238	\$1,423	\$1,483	\$1,530	\$1,567	\$1,596	\$1,627

A. Mission Description and Budget Item Justification:

This program element includes RDT&E,N funds for force protection requirements, equipment, minor construction and other investment and materiel support costs not directly chargeable to RDT&E,N projects. Excludes military manpower and related costs, non-RDT&E,N base operating costs, and military construction costs, which are included in other appropriate programs.

B. Program Change Summary:

	FY 2006	FY 2007	FY 2008	FY 2009
FY 2007 President's Budget	\$1,608	\$1,243	\$1,414	\$1,472
FY 2008 President's Budget	<u>\$1,571</u>	<u>\$1,238</u>	<u>\$1,423</u>	<u>\$1,483</u>
Total Adjustments	-\$37	-\$5	\$9	\$11
 Program Adjustments:				
Small Business Innovation	-\$38	\$0	\$0	\$0
Congressional Action 1%	\$1	\$0	\$0	\$0
Revised Economic Assumptions	\$0	-\$5	\$0	\$0
Program Adjustment	<u>\$0</u>	<u>\$0</u>	<u>\$9</u>	<u>\$11</u>
Total Adjustments	-\$37	-\$5	\$9	\$11

Exhibit R-2a, RDT&E,N Project Justification					Date: February 2007			
Appropriation/Budget Activity RDT&E,N BA 6				RDT&E,N Instrumentation Modernization 0605862N				
Cost (\$ in millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Medical Force Protection/3047	\$1,571	\$1,238	\$1,423	\$1,483	\$1,530	\$1,567	\$1,596	\$1,627
RDT&E,N Articles Quantity								
A. Mission Description and Budget Item Justification:								
<p>This program provides for protection of Navy Installations against terrorist activities by developing and deploying advanced technologies for force protection+A9 capabilities that are cost effective. The Force Protection Ashore PE/Project provides for maintenance, operation and other support costs of laboratories, warfare centers, ranges and supporting activities engaged in shore side force protection. Included is support for advanced test equipment, construction, data acquisition devices/ systems, and software at research activities and supporting installations. The project will conduct studies and analysis of threat, vulnerability and technology (science, technology and systems) tradeoffs over the full range of force protection ashore issues for the purpose of formulating optimum RDT&E investment strategies for the earliest attainment of anti-terrorism/force protection (ATFP) capabilities. Included are funds for force protection requirements at our OCONUS medical research laboratories for the protection of military and civilian employees, facilities, and equipments. This is accomplished through a planned and integrated application of antiterrorism measures, security equipment, facility site improvements and personnel protective services.</p>								
B. Accomplishments/Planned Program								
	FY 2006		FY 2007		FY 2008		FY 2009	
Accomplishment/Effort/Subtotal Cost	\$1,571		\$1,238		\$1,423		\$1,483	
RDT&E,N Articles Quantity								
FY 2006 Accomplishments								
<p>Provided funds for the following Force Protection Requirements at BUMED OCONUS Medical Research Laboratories; Security Specialist; Security Guards; Security Driver Training and Overtime; Maintenance of Non-Tactical Armored Vehicles; Perimeter Upgrades (barriers); alarm Systems; Perimeter Lighting Upgrade; Replacement of Exterior doors (steel); Personal Protective Equipment; Upgrade and Maintenance of Communications Systems/Equipment (radios, cell phones for emergency recall, satellite phones for deployed personnel, and Closed Circuit TV equipment).</p>								
FY 2007 - FY 2009 Plan								
Continue to provide RDT&E,N funds for force protection security requirements.								
C. Other Program Funding Summary: Not Applicable								
D. Acquisition Strategy: Not Applicable								
E. Performance Metrics: Not Applicable								

EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2007																																																																																																					
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE 0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT																																																																																																						
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013																																																																																																			
Total PE Cost	79.799	82.825	184.541	196.719	210.268	119.717	214.363	161.793																																																																																																			
0354 RDT&E Ship Support	10.540	8.124	0.000	0.000	0.000	0.000	0.000	0.000																																																																																																			
0568 RDT&E A/C FLT HOURS	32.353	35.734	32.639	34.342	34.992	36.147	36.739	37.249																																																																																																			
0569 RDT&E A/C SUPPORT	28.751	30.538	36.426	41.627	38.494	39.848	40.385	40.952																																																																																																			
2924 RDT&E SELF DEFENSE TEST SHIP	8.155	8.429	9.083	9.532	9.795	10.060	10.230	10.410																																																																																																			
3186 AIR and MISSILE DEFENSE RADAR	0.00	0.00	106.393	111.218	126.987	33.662	127.009	73.182																																																																																																			
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>This continuing program provides support for ships and aircraft required to accommodate Research, Development, Test and Evaluation (RDT&E) of new systems. The RDT&E ship and aircraft inventory is required to adequately test new and improved weapon systems, stay current with threats, and increase warfighting capability of the fleet. The program provides integrated logistics support for aircraft at selected field activities; provides depot-level rework of aircraft, engines, and components for the Navy inventory of RDT&E aircraft; and provides support for ships and aircraft bailed to contractors for Navy RDT&E projects. Costs covered under this element include aircrew training and proficiency, fuel, supplies, equipment, repair, Aviation Depot Level Repairables (AVDLR), overhaul of ships and aircraft, as well as organizational, intermediate, and depot maintenance of ships and aircraft in the Navy RDT&E inventory.</p>																																																																																																											
<p>B. PROGRAM CHANGE SUMMARY</p> <table border="0"> <tr> <td>Funding:</td> <td>FY 2006</td> <td>FY 2007</td> <td>FY 2008</td> <td>FY 2009</td> <td colspan="4"></td> </tr> <tr> <td>Previous FY07 President's Budget:</td> <td>75.974</td> <td>83.140</td> <td>82.644</td> <td>81.133</td> <td colspan="4"></td> </tr> <tr> <td>Current FY08/09 President's Budget:</td> <td>79.799</td> <td>82.825</td> <td>184.541</td> <td>196.719</td> <td colspan="4"></td> </tr> <tr> <td>Total Adjustments</td> <td>3.825</td> <td>-0.315</td> <td>101.897</td> <td>115.586</td> <td colspan="4"></td> </tr> <tr> <td colspan="9">Summary of Adjustments</td> </tr> <tr> <td>Congressional Adjustments</td> <td>0.023</td> <td>-0.315</td> <td></td> <td></td> <td colspan="4"></td> </tr> <tr> <td>Rate Adjustments</td> <td></td> <td></td> <td>1.311</td> <td>4.266</td> <td colspan="4"></td> </tr> <tr> <td>SBIR Assessment</td> <td>-0.469</td> <td></td> <td></td> <td></td> <td colspan="4"></td> </tr> <tr> <td>Program Realignment</td> <td></td> <td></td> <td>106.300</td> <td>109.800</td> <td colspan="4"></td> </tr> <tr> <td>Program Adjustments</td> <td>4.271</td> <td></td> <td>-5.714</td> <td>1.520</td> <td colspan="4"></td> </tr> <tr> <td>Subtotal</td> <td>3.825</td> <td>-0.315</td> <td>101.897</td> <td>115.586</td> <td colspan="4"></td> </tr> </table>									Funding:	FY 2006	FY 2007	FY 2008	FY 2009					Previous FY07 President's Budget:	75.974	83.140	82.644	81.133					Current FY08/09 President's Budget:	79.799	82.825	184.541	196.719					Total Adjustments	3.825	-0.315	101.897	115.586					Summary of Adjustments									Congressional Adjustments	0.023	-0.315							Rate Adjustments			1.311	4.266					SBIR Assessment	-0.469								Program Realignment			106.300	109.800					Program Adjustments	4.271		-5.714	1.520					Subtotal	3.825	-0.315	101.897	115.586				
Funding:	FY 2006	FY 2007	FY 2008	FY 2009																																																																																																							
Previous FY07 President's Budget:	75.974	83.140	82.644	81.133																																																																																																							
Current FY08/09 President's Budget:	79.799	82.825	184.541	196.719																																																																																																							
Total Adjustments	3.825	-0.315	101.897	115.586																																																																																																							
Summary of Adjustments																																																																																																											
Congressional Adjustments	0.023	-0.315																																																																																																									
Rate Adjustments			1.311	4.266																																																																																																							
SBIR Assessment	-0.469																																																																																																										
Program Realignment			106.300	109.800																																																																																																							
Program Adjustments	4.271		-5.714	1.520																																																																																																							
Subtotal	3.825	-0.315	101.897	115.586																																																																																																							
<p>Schedule: Not Applicable</p>																																																																																																											
<p>Technical: Not Applicable</p>																																																																																																											

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME Program Element (0605863N Ship and Aircraft Support)			PROJECT NUMBER AND NAME Project Unit (0354 RDT&E Ship Support)			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	10.540	8.124	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

S0354, RDT&E Ships Support. This project provides for operation and maintenance of a platform used as Sea Based Test Site in support of the Navy Research, Development, Test and Evaluation (RDT&E) program. This project is for the USS DOLPHIN (AGSS-555). Testing aboard this platform reduces the number of fleet units required to support RDT&E efforts. A major cost of this project is regularly scheduled ship maintenance. The remainder of the funds are used for purchase of supplies and equipment, fuel and petroleum products, repairs, and supporting modifications. Most costs are fixed and are associated with simply having these platforms in the inventory. A lesser portion of the costs varies with the tempo and type of ship operations and provides for systems improvements and replacement planning. The nature of the operations determined by the overall Navy/DoD R&D testing program.

USS DOLPHIN will support software upgrades testing of the MK50 and MK48 Advanced Capability (ADCAP) torpedoes, the "VA Class" Submarine Material Qualification Program, ONR Littoral Warfare Advanced Development (LWAD) Program, Improved Extended Echo Ranging (IEER), Advanced Extended Echo Ranging (AEER), Advanced Deployable System (ADS), Submarine Mast Detection Radar (SMDR), Laser Airborne System - Hyperspectral (LASH), Airborne Low Frequency Sonar (ALFS), Tripartite Technology Cooperation Program (TTCP) and the Advanced Sea /Air/Land (SEAL) Delivery Program. Mobile Inshore Warfare Unit Arrays and the Seabased Weapons and Tactics School (SWATS) are also frequently supported by USS DOLPHIN. USS DOLPHIN provides support for numerous undersea surveillance, sonar, weapons, communications and imaging programs.

This budget reflects the decision after FY07 President's Budget to deactivate the USS DOLPHIN. The FY07 funds will be used for continued operations, then a transition to deactivation.

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	----------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-6	PROGRAM ELEMENT NUMBER AND NAME Program Element (0605863N Ship and Aircraft Support)	PROJECT NUMBER AND NAME Project Unit (0354- RDT&E Ship Support)
------------------------------------------------------------	-----------------------------------------------------------------------------------------	--------------------------------------------------------------------

B. Accomplishments/Planned Program

	FY06	FY 07	FY 08	FY 09
USS DOLPHIN Ship Support	10.540	8.155	0.000	0.000

FY 2006 Plans: Conducted periodic maintenance and continued support operations. FY 2007 Plans: Funds used to deactivate the USS Dolphin

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	-------------------------------

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-6	0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT	0354, RDT&E SHIP SUPPORT

C. OTHER PROGRAM FUNDING SUMMARY:

Not Applicable

D. ACQUISITION STRATEGY:

Not Applicable

E. MAJOR PERFORMERS:

DATE: **February 2007**

Exhibit R-3 Cost Analysis (page 1)

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME								
RDT&E, N / BA-6		Program Element (PE 0605863N Ship and Aircraft Support)				Project Unit (PU 0354 Ship Support)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
RAV	WR	Portsmouth Naval Shipyard	70.750	3.300	10/05	0.000	10/06	0.000		0.000		0.000	74.050	
Planning Yard Support	WR	Portsmouth Naval Shipyard	22.291	3.525	10/05	0.280	10/06	0.000		0.000		0.000	26.096	
Ship Operations	WR	COMSUBPAC	3.021	0.940	10/05	0.000	10/06	0.000		0.000			3.961	
Maintenance/Homeporting	WR	SPAWAR	10.631	1.105	10/05	0.089	10/06	0.000		0.000			11.825	
PMS394	WR	Various	20.502	1.027	10/05	0.000	10/06	0.000		0.000			21.529	
Engineering Services	WR	NSWC Carderock	0.000	0.179	10/05								0.179	
Engineering Services	WR	NUWC Keyport	0.000	0.030	10/05								0.030	
Engineering Services	WR	NUWC Newport	0.000	0.069	10/05								0.069	
Engineering Services	WR	Puget Sound	0.000	0.171	10/05								0.171	
Engineering Services	WR	SUBMEPP	0.000	0.149	10/05								0.149	
Engineering Services/Deactivation		TBD	0.000			7.710	10/06						7.710	
Subtotal Product Development			127.195	10.495		8.079		0.000		0.000		0.000	145.769	

Remarks: This program has existed since 1968. The program management responsibilities were transferred to this office June 1997. Detailed execution data is not available prior to that date. The total prior year costs reflect execution data from FY97 through FY05.

Development Support													0.000	
Software Development													0.000	
Training Development													0.000	
Integrated Logistics Support													0.000	
Configuration Management													0.000	
Technical Data													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	

Remarks:

CLASSIFICATION:

UNCLASSIFIED

DATE:

February 2007

Exhibit R-3 Cost Analysis (page 2)

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME								
RDT&E, N / BA-6		0605863N - RDT&E,N Ship and Aircraft Support				Project Unit (PU 0354 Ship Support)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation													0.000	
Operational Test & Evaluation													0.000	
Live Fire Test & Evaluation													0.000	
Test Assets													0.000	
Tooling													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal T&E			0.000	0.000		0.000		0.000		0.000		0.000	0.000	

Remarks:

Contractor Engineering Support													0.000	
Government Engineering Support													0.000	
Program Management Support													0.000	
Travel				0.045		0.045							0.090	
Labor (Research Personnel)													0.000	
SBIR Assessment													0.000	
Subtotal Management			0.000	0.045		0.045		0.000		0.000		0.000	0.090	

Remarks:

Total Cost			127.195	10.540		8.124		0.000		0.000		0.000	145.859	
------------	--	--	---------	--------	--	-------	--	-------	--	-------	--	-------	---------	--

Remarks:

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT			PROJECT NUMBER AND NAME 0568, RDT&E A/C FLT HOURS				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost		32.353	35.734	32.639	34.342	34.992	36.147	36.739	37.249
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

RDT&E Aircraft Flight Hours. This non-acquisition project supports direct flight hour costs, including organizational and intermediate level maintenance, as well as associated consumables, including petroleum, oil, and lubricants (POL). These flight hours are used for post-maintenance test flights, aircrew training, and the accomplishment of pilot proficiency requirements (approximately 3 hours per pilot per month), in support of Research and Development programs at four Naval Air Systems Command/Naval Surface Warfare Center/Office of Naval Research (NAVAIR/NSWC/ONR) flight activities.

R-1 SHOPPING LIST - Item No. 150

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2007

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT NUMBER AND NAME

PROJECT NUMBER AND NAME

RDT&E, N / BA-6

0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT

0568, RDT&E A/C FLT HOURS

B. Accomplishments/Planned Program

Aircraft Flight Hours	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	32.353	35.734	32.639	34.342
RDT&E Articles Quantity				

Providing organizational and intermediate-level maintenance, supply and Petroleum, Oil and Lubricants (POL) in support of RDT&E aircraft operations.

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	----------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT	PROJECT NUMBER AND NAME 0568, RDT&E A/C FLT HOURS
-------------------------------------------------------------	------------------------------------------------------------------------------	------------------------------------------------------

C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
Not Applicable										

D. ACQUISITION STRATEGY:

Not Applicable

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT			PROJECT NUMBER AND NAME 0569, RDT&E A/C SUPPORT				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost		28.751	30.538	36.426	41.627	38.494	39.848	40.385	40.952
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

RDT&E Aircraft Support. This continuing project funds costs associated with Research, Development, Test and Evaluation (RDT&E) fixed and rotary wing aircraft which accommodate test and evaluation of aircraft/weapon systems. Testing aboard these platforms reduces the number of fleet units required to support RDT&E efforts. Included in these costs are Aviation Depot-Level Repairables (AVDLRs), which are spare and replacement aircraft parts and components to support overhead maintenance related flight operations, aircrew training, and proficiency flight hours. This project also funds airframe Standard Depot Level Maintenance (SDLM), the Integrated Maintenance Concept (IMC) and Phased Depot Maintenance (PDM), in-service repairs, emergency repairs, and engine repair, as well as aircraft material condition and field inspections. Additionally, it funds Individual Material Readiness List (IMRL) tools and support equipment, and other systems for application to and compatibility with RDT&E requirements.

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT	PROJECT NUMBER AND NAME 0569, RDT&E A/C SUPPORT
-------------------------------------------------------------	------------------------------------------------------------------------------	----------------------------------------------------

B. Accomplishments/Planned Program

Aircraft/Engine Maintenance & AVDLR/IMRL Support	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	27.734	29.430	35.084	40.326
RDT&E Articles Quantity				

Continuing the transition from ASPA/SDLM/MCAPP to the IMC/PDM program for depot maintenance requirements, while sustaining the following programs: AVDLR/IMRL, engine repairs, support of aircraft in the RDT&E inventory. Continuing operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities. FY06-FY09 plans are to continue to support these requirements.

In-Service Repairs	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	1.017	1.108	1.342	1.301
RDT&E Articles Quantity				

Providing In-Service Repair (ISR) funds for emergent repair requirements to aircraft performing mission critical test and evaluation projects. FY06-FY09 plans are to continue to support these requirements.

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT	PROJECT NUMBER AND NAME 0569, RDT&E A/C SUPPORT
-------------------------------------------------------------	------------------------------------------------------------------------------	----------------------------------------------------

C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
Not Applicable										

D. ACQUISITION STRATEGY:

Not Applicable

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT			PROJECT NUMBER AND NAME 2924, RDT&E SELF DEFENSE TEST SHIP				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost		8.155	8.429	9.083	9.532	9.795	10.060	10.230	10.410
RDT&E Articles Qty									

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project provides for the maintenance of Hull Mechanical and Electrical (HM&E) and installed Combat Systems of the Self-Defense Test Ship (SDTS) in support of the Navy Research, Development, Test and Evaluation (RDT&E) of ship self-defense systems. Testing aboard this ship reduces the number of fleet units required to support RDT&E efforts. SDTS provides the capability of safely testing self-defense weapon systems within their minimum range. A major cost of this project is regularly scheduled ship and combat system maintenance. The remainder of the funds are used for purchase of expendable supplies and routine equipment, fuel and petroleum products, repairs and supporting services. Most costs are fixed and are associated with simply having this platform in the inventory.

Current and projected Anti-Ship Cruise Missile (ASCM) threats require self-defense weapons systems capable of adequately countering ASCMs. The National Defense Authorization Act for FY87, section 910, "Testing of Certain Weapons Systems and Munitions," requires live-fire lethality testing of manned weapons systems. Operational and safety constraints limit realistic live-fire lethality testing with U.S. Navy ships and thus drive the requirement for having an afloat, unmanned, remotely controlled SDTS. SDTS plan calls for multiple configuration testing including DD(X), CVN 21, LHA 6, LHDs/CVNs, LPD 17, and 2 versions of LCS against realistic threat presentation in an at-sea environment.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	----------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT	PROJECT NUMBER AND NAME 2924, RDT&E SELF DEFENSE TEST SHIP
-------------------------------------------------------------	------------------------------------------------------------------------------	---------------------------------------------------------------

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	8.155	0.000	0.000	0.000
RDT&E Articles Quantity				

NAVSURFWARCENDIV Port Hueneme, CA is at the end of a two year conversion. Additional installations in support of LPD 17, DD(X) and element level programs have been planned and scheduled and will be performed along with the HM&E maintenance onboard SDTS.

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	8.429	0.000	0.000
RDT&E Articles Quantity				

NAVSURFWARCENDIV Port Hueneme, CA will plan, schedule and perform HM&E and CS maintenance onboard SDTS in support of check out and installation and work ups for the testing of LPD 17 and MFR. SDTS will support Probability of Raid Annihilation (PRA) and end to end test efforts for LPD-17 combat system

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	9.083	0.000
RDT&E Articles Quantity				

NAVSURFWARCENDIV Port Hueneme, CA will plan, schedule, and perform maintenance onboard EDD 964 and continue to support testing for LPD 17, LHDs/CVNs and MFR. PHD will also determine the feasibility of multiple configurations in support of the Navy AAW SSD Enterprise Strategy. SDTS priority consists of installing, testing, and executing to the Enterprise TEMP.

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	9.532
RDT&E Articles Quantity				

SDTS priority consists of installing multiple configurations, deinstalling unused equipment, modifying top side and below deck equipment to coincide with appropriate elements and Combat Systems, testing of all systems listed in Enterprise, and executing according to the Enterprise TEMP. SDTS will also plan, schedule, and perform maintenance onboard EDD 964 for HME and CS elements in support of such activities.

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-6	0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT	2924, RDT&E SELF DEFENSE TEST SHIP

C. OTHER PROGRAM FUNDING SUMMARY:

Not Applicable

D. ACQUISITION STRATEGY:

Not Applicable

E. MAJOR PERFORMERS:

Not Applicable

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)						DATE: February 2007									
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME									
RDT&E, N / BA-6			0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT			2924, RDT&E SELF DEFENSE TEST SHIP									
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Primary Hardware Development													0.000		
Ancillary Hardware Development													0.000		
Component Development													0.000		
Ship Integration													0.000		
Ship Suitability													0.000		
Systems Engineering	WX	Port Hueneme Division	20.037	7.955	10/05	8.179	02/07	8.833	10/07	9.282	10/08		54.286		
Training Development													0.000		
Licenses													0.000		
Tooling													0.000		
GFE													0.000		
Award Fees													0.000		
Subtotal Product Development			20.037	7.955	N/A	8.179	N/A	8.833	N/A	9.282	N/A	0.000	54.286		
Remarks:															
Development Support													0.000		
Software Development													0.000		
Training Development													0.000		
Integrated Logistics Support													0.000		
Configuration Management													0.000		
Technical Data													0.000		
GFE													0.000		
Award Fees													0.000		
Subtotal Support			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	Cont.	0.000		
Remarks:															

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 2)							DATE: February 2007								
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME								
RDT&E, N / BA-6			0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT				2924, RDT&E SELF DEFENSE TEST SHIP								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Developmental Test & Evaluation														0.000	
Operational Test & Evaluation														0.000	
Live Fire Test & Evaluation														0.000	
Test Assets														0.000	
Tooling														0.000	
GFE														0.000	
Award Fees														0.000	
Subtotal T&E			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	0.000	0.000	0.000	
Remarks:															
Contractor Engineering Support	CPAF	NGIT	0.000	0.200	10/06	0.250	10/06	0.250	10/07	0.250	10/08	0.250	1.200		
Program Management Support	CPAF		0.000	0.000	10/06	0.000	10/06	0.000	10/07	0.000	10/08	0.000	0.000		
Subtotal Management			0.000	0.200	N/A	0.250	N/A	0.250	N/A	0.250	N/A	0.000	0.950		
Remarks:															
Total Cost			20.037	8.155	N/A	8.429	N/A	9.083	N/A	9.532	N/A	Cont.	55.236		
Remarks:															

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E Ship and Aircraft Support				PROJECT NUMBER AND NAME 3186, RDT&E Air and Missile Defense Radar			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost	0.000	0.000	106.393	111.218	126.987	33.662	127.009	73.182
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
 This project provides Self Defense Test Ship Test and Evaluation Enterprise efforts for DDG 1000, LHA 6, CVN 21, and LCS programs. The T&E Enterprise solution integrates Self Defense Test Ship, Probability of Raid Annihilation Test Bed, and lead and operational ship at-sea test events across combat system variants to eliminate duplication and minimize combat system testing across ship classes.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
-------------------------------------------	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605863N, RDT&E Ship and Aircraft Support	PROJECT NUMBER AND NAME 3186, RDT&E Air and Missile Defense Radar
-------------------------------------------------------------	------------------------------------------------------------------------------	----------------------------------------------------------------------

B. Accomplishments/Planned Program

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	83.043	106.218
RDT&E Articles Quantity				

This effort will initiate Enterprise Acquisition & Installation, Pra Testbed, and Lead and Operational Ship test and evaluation.

	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.000	0.000	23.350	5.000
RDT&E Articles Quantity				

This effort will accomplish Enterprise Test Execution on the Self Defense Test Ship.

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 1)						DATE: February 2007								
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDT&E, N / BA-6			0605863N, RDT&E Ship and Aircr			3186, RDT&E Air and Missile Defense Radar								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Acquisition of equipment	Various	PMS 500	0.000	0.000	N/A	0.000	N/A	21.478	Nov-07	0.000	N/A	0.000	21.478	
Radar	Various	LCS	0.000	0.000	N/A	0.000	N/A	17.093	Nov-07	1.423	N/A	0.000	18.516	
Electro Optic Directors	Various		0.000	0.000	N/A	0.000	N/A	18.342	Nov-07	0.000	N/A	0.000	18.342	
Develop PRA Testbed	Various	Visitech	0.000	0.000	N/A	0.000	N/A	4.280	Nov-07	10.390	Nov-08	Cont.	Cont.	
SSDS OA	Various	PEOWS 1.0	0.000	0.000	N/A	0.000	N/A	8.170	Nov-07	0.000	N/A	0.000	8.170	
ESSM OA	Various	PEOWS 3.0	0.000	0.000	N/A	0.000	N/A	11.180	Nov-07	0.000	N/A	0.000	11.180	
Suite Interfaces/Remote Control Sys	WX	NSWC/PHD	0.000	0.000	N/A	0.000	N/A	2.000	Nov-07	0.000	N/A	0.000	2.000	
Development	Various	TBD	0.000	0.000	N/A	0.000	N/A	0.000	Nov-07	93.905	Nov-08	Cont.	Cont.	
Licenses			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
Tooling			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
GFE			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
VARIOUS			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
Subtotal Product Development			0.000	0.000		0.000		82.543		105.718		Cont.	Cont.	
Remarks:														
Development Support													0.000	
Software Development													0.000	
Training Development													0.000	
Integrated Logistics Support													0.000	
Configuration Management													0.000	
Technical Data													0.000	
GFE													0.000	
Award Fees													0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000			0.000	
Remarks:														

UNCLASSIFIED

Exhibit R-3 Cost Analysis (page 2)						DATE: February 2007								
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME								
RDT&E, N / BA-6			0605863N, RDT&E Ship and Aircraft			3186, RDT&E Air and Missile Defense Radar								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	FY 08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
Operational Test & Evaluation	various	PEOIWS 1.0	0.000	0.000	N/A	0.000	N/A	8.170	Nov-07	0.000	N/A	0.000	8.170	
Operational Test & Evaluation	various	PEOIWS 1.3	0.000	0.000	N/A	0.000	N/A	11.180	Nov-07	0.000	N/A	0.000	11.180	
Live Fire Test & Evaluation	various	PEO IWS 3.0	0.000	0.000	N/A	0.000	N/A	4.000	Nov-07	5.000	Nov-08	Cont.	Cont.	
Test Assets			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
Tooling			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
GFE			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
Award Fees			0.000	0.000	N/A	0.000	N/A	0.000	N/A	0.000	N/A	0.000	0.000	
Subtotal T&E			0.000	0.000		0.000		23.350		5.000		0.000	28.350	
Remarks:														
Contractor Engineering Support			0.000	0.000	N/A	0.000	N/A	0.400	N/A	0.400	N/A		0.800	
Program Management Support			0.000	0.000	N/A	0.000	N/A	0.100	N/A	0.100	N/A		0.200	
Subtotal Management			0.000	0.000		0.000		0.500		0.500		0.000	1.000	
Remarks:														
Total Cost			0.000	0.000		0.000		106.393		111.218		Cont.	Cont.	

EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6						R-1 ITEM NOMENCLATURE 0605864N, TEST AND EVALUATION SUPPORT		
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	314.372	327.038	336.130	351.430	358.978	365.294	372.120	379.016
0541 AUTEC	51.660	53.102	54.247	56.125	57.954	59.325	60.359	61.439
0566 NAVAIR ENVIRONMENTAL COMPL	3.994	3.591	3.703	3.914	4.050	4.158	4.229	4.302
0653 NAWC WEAPONS	131.905	138.651	143.625	150.962	154.065	157.228	160.361	163.261
0654 NAWC AIRCRAFT	95.913	99.985	102.496	106.987	108.423	109.358	111.365	113.593
2921 PACIFIC MISSILE RANGE FACILITY	5.048	5.336	4.945	5.051	5.173	5.258	5.356	5.459
2922 MRTFB MAINT AND REPAIR	14.038	14.608	14.978	15.907	16.459	16.887	17.167	17.464
3029 T&E POLICY SUPPORT	.610	.651	.675	.708	.749	.775	.780	.786
3154 NANOOSE AND DABOB	11.204	11.114	11.461	11.776	12.105	12.305	12.503	12.712

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides institutional maintenance and operations support for: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTEC), Andros Island, Bahamas; the Environmental Compliance Program; Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point Mugu and China Lake, CA; Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD; T&E related capabilities at the Pacific Missile Range Facility, Barking Sands, HI; Maintenance and Repair at NAVAIRWARCENWPNDIV and NAVAIRWARCENACDIV; and the Naval Undersea Warfare Center Keyport (NAVUNSEAWARCEN KEYPORT) Nanoose and Dabob Bay Ranges. The Test and Evaluation (T&E) activities make up the Navy portion of the Department of Defense's Major Range and Test Facility Base (MRTFB). These activities are chartered to perform T&E for the development and acquisition of technology advanced weapons systems. Core T&E capabilities and capacity are operated to obtain weapons system performance documentation for acquisition program milestone decisions to provide operational forces with effective weapons systems. This program provides Navy Acquisition Program Managers required test capabilities; lowers cost of T&E; removes cost and scheduling impact of providing their own T&E resources; and retains the physical airspace, land space and sea space needed to conduct testing.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
FY 2007 President's Budget:	316.021	328.276	342.855	352.425
FY 2008/2009 President's Budget:	314.372	327.038	336.130	351.430
Total Adjustments	-1.649	-1.238	-6.725	-0.995
Summary of Adjustments				
Congressional Adjustments	0.439	-1.238		
Economic Assumptions			-1.866	5.889
SBIR Assessment	-0.660			
Program Adjustments	-1.428		-4.859	-6.884
Subtotal	-1.649	-1.238	-6.725	-0.995

Schedule:

Project Unit 0541. Not Applicable.
 Project Unit 0566. Not Applicable.
 Project Unit 0653. Not Applicable.
 Project Unit 0654. Not Applicable.
 Project Unit 2921. Not Applicable.
 Project Unit 2922. Not Applicable.
 Project Unit 3029. Not Applicable.
 Project Unit 3154. Not Applicable.

Technical:

Project Unit 0541. Not Applicable.
 Project Unit 0566. Not Applicable.
 Project Unit 0653. Not Applicable.
 Project Unit 0654. Not Applicable.
 Project Unit 2921. Not Applicable.
 Project Unit 2922. Not Applicable.
 Project Unit 3029. Not Applicable.
 Project Unit 3154. Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE:							
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6							PROGRAM ELEMENT NUMBER AND NAME 0605864N, TEST AND EVALUATION SUPPORT			PROJECT NUMBER AND NAME 0541, AUTEK				
COST (\$ in Millions)							FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0541 AUTEK							51.660	53.102	54.247	56.125	57.954	59.325	60.359	61.439
RDT&E Articles Qty							NOT APPLICABLE							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: As a detachment of Naval Undersea Warfare Center (NUWC), Division Newport, the mission of the Atlantic Undersea Test and Evaluation Center (AUTEK) is to provide the US Navy an underwater range facility for full-spectrum test and evaluation of Undersea Warfare (USW) systems and for Fleet training and readiness assessment.

The AUTEK Program Office is headquartered at Newport, RI. AUTEK's administrative offices are located at West Palm Beach, Florida. Test facilities are located at Andros Island, Sites 1 through 4, and the Berry Islands in the Bahamas. AUTEK aircraft make scheduled daily flights between West Palm Beach and Andros Town Airport.

AUTEK manages and, under service contract, maintains and operates a 500 square nautical miles deep-water and a 100 square nautical miles shallow-water acoustic tracking range; air-target tracking capabilities; sonobuoy simulation systems; electronic warfare threat simulation systems; fixed and rotary wing aircraft; aircraft ground support facilities; acoustic targets; torpedo retrieval and flushing capabilities; open-ocean range craft; marine support facilities; and, data processing and analysis capabilities.

Major test facilities on Andros Island are located at Site 1. The Command Control Building houses the range tracking displays and replay centers, the computer center, operations support functions, communications center, and the central timing system. The Range Support Facility houses a torpedo post-run workshop, Mark 46 /Mark 50 lightweight torpedo Intermediate Maintenance Activity (IMA), a Mark 30 undersea target IMA, a Mark 48 heavyweight torpedo R&D Turnaround facility and related technical facilities. The complex includes electrical and physical calibration labs, a complete electronics maintenance shop, a dive locker, a precision machine shop, and logistics support areas.

AUTEK has a 285-foot concrete pier with a controlling depth of 17 feet (5.2 meters) at mean low tide. An adjacent wharf is approximately 240 feet in length (72 meters) with a controlling depth of 15 feet at mean low tide. Power is available at both locations. Facilities at the pier/marine area include fully equipped machine /fabrication and marine overhaul shops.

Also at Site 1, six Range User Buildings (RUBs) are maintained for assembling test equipment and equipment check-out during test mobilization or dockside periods. These staging areas are equipped with a variety of power sources, gantry cranes, compressed air and security features. A fully equipped range user hanger for ground maintenance and storage of helicopters is located at the AUTEK helicopter airstrip. Sites 2, 3, and 4 are small instrumented areas located south of Site 1 used to extend tracking of sonobuoys, communications, and air target track.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Atlantic Undersea Test and Eval Ctr Facility	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	40.810	42.102	43.197	45.075
RDT&E Articles Qty				

AUTEK is a Test and Evaluation (T&E) facility for collecting selected underwater, surface and air tracking data on test participants. This project funds the overhead/institutional costs required to sustain the MRTFB capabilities at AUTEK in accordance with Department of Defense Directive 3200.11. Funds are used to maintain and operate mission essential/core test support resources, instrumentation systems and marine craft required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburses the Command for General and Administrative support services.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N, TEST AND EVALUATION SUPPORT	PROJECT NUMBER AND NAME 0541, AUTEK

Bahamian Lease	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	10.850	11.000	11.050	11.050
RDT&E Articles Qty				

Provide rental payments to the Bahamian government for use of land and ocean in the Bahamas.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

<u>List Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
---------------------------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	--------------------	-------------------

D. ACQUISITION STRATEGY: Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE:							
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6			PROGRAM ELEMENT NUMBER AND NAME 0605864N, TEST AND EVALUATION SUPPORT				PROJECT NUMBER AND NAME 0566, NAVAIR ENVIRONMENTAL COMPL							
COST (\$ in Millions)							FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0566 NAVAIR ENVIRONMENTAL COMPL							3.994	3.591	3.703	3.914	4.050	4.158	4.229	4.302
RDT&E Articles Qty							NOT APPLICABLE							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This continuing project supports environmental compliance, conservation and pollution prevention related efforts at the Navy Major Test Facility Bases (MRTFB) located at Patuxent River, MD, China Lake, CA, Point Mugu, CA, and Atlantic Undersea Test and Evaluation Center (AUTEC), Bahamas. The Navy MRTFB environmental projects include ongoing efforts to comply with Federal, State, and local environmental requirements.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Environmental Compliance	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	3.994	3.591	3.703	3.914
RDT&E Articles Qty				

Continues hazardous waste disposal, solid waste disposal, natural & cultural resources programs, environmental permits, and environmental monitoring at AUTEC, Patuxent River, China Lake and San Nicolas Island. Continue the removal and disposal of Polychlorinated Biphenyls (PCBs) contaminated items at China Lake. Continued comprehensive air pollution meteorology studies at Point Mugu. Continue range contamination assessments at impact areas and lay down yards at China Lake.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

List Item No. & Name	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost

D. ACQUISITION STRATEGY: Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE:		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E,N / BA-6		0605864N, TEST AND EVALUATION SUPPORT			0653, NAWC WEAPONS				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0653 NAWC WEAPONS		131.905	138.651	143.625	150.962	154.065	157.228	160.361	163.261
RDT&E Articles Qty		NOT APPLICABLE							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Project provides continuing maintenance and operational support for the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV) Test and Evaluation (T&E) capabilities. These capabilities include the Pacific Ranges and Facilities, consisting of China Lake Ranges and the Point Mugu Sea Range, aerial and surface targets, test instrumentation, and T&E aircraft. The Pacific Ranges use China Lake's 1.1 million acres of land and 17,000 square miles of military restricted (R-2508) airspace together with Point Mugu's 125,000 square miles of instrumented sea range and 36,000 square miles of controlled overlying airspace, and airfield and test instrumentation at San Nicolas Island to perform its T&E mission. Included in the China Lake ranges is the Electronic Combat Range (ECR), which provides outdoor free space development and operational testing of airborne electronic warfare (EW) systems and tactics against shipboard and land based air defense systems. These ranges perform metric radar, multilateration and optical tracking of test objects; command, control, and destruct for range safety purposes; communications; frequency interference control and analysis; collection processing and display of telemetered data; real-time data processing and display; and the operation of a sub scale aerial target launch capability. Other test capabilities include an outdoor High Power Microwave (HPM) measurement facility; propulsion, warhead, environmental, rocket motor, and other missile component test facilities; and gun ranges. This project funds costs that are not chargeable to customers.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Pacific Ranges	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	63.178	65.286	64.974	67.697
RDT&E Articles Qty				

In accordance with (IAW) Department of Defense Directive (DoDD) 3200.11., this project funds the overhead/institutional costs required to sustain the Major Range Test Facility Base (MRTFB) capabilities at the Pacific Ranges and Facilities located at China Lake and Point Mugu CA. These facilities provide safe, instrumented, controlled open air testing utilizing the Land Range, Sea Range, Electronic Combat Range, Air Vehicle Modification and Instrumentation, and San Nicholas Island. Funds are used to maintain and operate mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft, Weapons Under Test and Aircraft Engines Undergoing Un-installed test, as well as, scheduling and control of air, land, sea and associated range operating areas required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

Navy Test Wing Pacific	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	18.750	20.289	23.714	25.488
RDT&E Articles Qty				

IAW with DoDD 3200.11., this project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Naval Test Wing Pacific located at China Lake and Point Mugu CA. These facilities provide the Navy's principal Pacific test activity for Naval Aviation Systems Team aircraft, engaged in or supporting T&E of aircraft, weapons and weapons systems. Funds are used to maintain and operate mission essential/core test support resources associated with aircraft and related systems and flight test safety required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N, TEST AND EVALUATION SUPPORT	PROJECT NUMBER AND NAME 0653, NAWC WEAPONS

Threat/Target Systems	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	11.946	11.490	11.280	11.752
RDT&E Articles Qty				

This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Threat/Target Systems facilities IAW DoDD 3200.11. These facilities provide the airborne and seaborne threats for test and evaluation. Funds are used to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

Test and Evaluation Ordnance	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	3.259	3.305	3.271	3.408
RDT&E Articles Qty				

This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Test and Evaluation Ordnance facilities IAW DoDD 3200.11. These facilities provide test and evaluation of All-Up live ordnance and components. Funds are used to maintain and operate mission essential/core test support resources associated propulsion, warhead, environmental, rocket motor, and other missile component test facilities required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

Staff	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	34.772	38.281	40.386	42.617
RDT&E Articles Qty				

This project funds the overhead/institutional costs required to sustain the Naval Air Warfare Center Weapons Division (NAWCWD) MRTFB Test and Evaluation capabilities IAW DoDD 3200.11. Reimburses the Command for General and Administrative Support services. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

<u>List Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>
---------------------------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	----------------	--------------------	-------------------

D. ACQUISITION STRATEGY: Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE:							
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6							PROGRAM ELEMENT NUMBER AND NAME 0605864N, TEST AND EVALUATION SUPPORT			PROJECT NUMBER AND NAME 0654, NAWC AIRCRAFT				
COST (\$ in Millions)							FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
0654 NAWC AIRCRAFT							95.913	99.985	102.496	106.987	108.423	109.358	111.365	113.593
RDT&E Articles Qty							NOT APPLICABLE							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funds for the maintenance and operations of the Naval Air Warfare Center Aircraft Division's (NAVAIRWARCENACDIV's) Major Range Test Facility Base (MRTFB) capabilities used to conduct test and evaluation for air platforms. NAVAIRWARCENACDIV has extensive airfield, flight test ranges, aircraft systems test facilities and simulation laboratories to support aircraft Research Development Test and Evaluation (RDT&E). This includes 50,000 square miles of airspace, 39,375 square miles of sea space, and 7,950 acres of land space. Product areas include aircraft systems flight test and evaluation, carrier suitability certification, test article preparation, installed system test and evaluation, and modeling and simulation support of the acquisition process. The Test and Evaluation (T&E) Group, Patuxent River, performs development and operational test and evaluation of manned and unmanned air vehicle systems, including mission systems, equipment, subsystems, components, and support systems. This project also provides test and evaluation facilities for air-breathing propulsion systems and extensive facilities for conducting both installed and uninstalled aircraft engine development and test and evaluation. This project funds costs that are not chargeable to customers.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Atlantic Ranges	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	25.116	24.177	23.709	24.700
RDT&E Articles Qty				

In accordance with (IAW) Department of Defense Directive (DoDD) 3200.11, this project funds the overhead/institutional costs required to sustain the MRTFB capabilities associated with the Atlantic Ranges and Facilities and Air Vehicle Modification and Instrumentation. These facilities provide safe, instrumented, controlled flight testing and training in air, sea, and land arenas. Funds are used to maintain and operate mission essential/core test support resources. These resources include test article instrumentation and/or modification for Flight Test Aircraft and Weapons Under Test as well as, ground and flight test instrumentation systems, range instrumentation systems and data processing and communication systems required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

and Air Combat Environment Test and Evaluation Facility (ACETEF)

	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	20.132	20.737	21.439	22.335
RDT&E Articles Qty				

In accordance with DoDD 3200.11., this project funds the overhead/institutional costs required to sustain the MRTFB capabilities associated with Electromagnetic Environmental Effects (E-Cubed) and Air Combat Environment Test and Evaluation Facility . These facilities provide T&E support with integrated, interactive, and repeatable synthetic environments and reduce the risk and cost for programs with the use of installed systems tests to include simulation and stimulation tools, techniques and technologies. Funds are used to maintain and operate mission essential/core test support resources required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies,

Propulsion Systems Test Facility

	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	4.061	4.183	4.500	4.689
RDT&E Articles Qty				

This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Propulsion System Evaluation facility IAW DoDD 3200.11. These facilities perform T&E of propulsion systems in the laboratories, engine test chambers and component test rigs of the Propulsion Systems Test Facility and the Aircraft T&E Facility. Propulsion Systems consists of engines, engine components and accessories. Funds are used to maintain and operate mission essential/core test support resources required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N, TEST AND EVALUATION SUPPORT	PROJECT NUMBER AND NAME 0654, NAWC AIRCRAFT

Threat/Target Systems	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	1.669	1.467	1.441	1.501
RDT&E Articles Qty				

This project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Threat/Target Systems facilities IAW DoDD 3200.11. These facilities provide the airborne and seaborne threats for test and evaluation. Funds are used to maintain and operate mission essential/core test support resources associated with airborne and seaborne targets required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

Naval Test Wing Atlantic	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	20.138	20.949	22.685	23.868
RDT&E Articles Qty				

IAW with DoDD 3200.11., this project funds the overhead/institutional costs required to sustain the MRTFB capabilities of the Naval Test Wing Atlantic. These facilities provide support for Naval Aviation Systems Team aircraft, engaged in or supporting T&E of aircraft and aircraft systems. Funds are used to maintain and operate mission essential/core test support resources associated with aircraft and related systems and flight test safety required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

Staff	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	24.797	28.472	28.722	29.894
RDT&E Articles Qty				

This project funds the overhead/institutional costs required to sustain the Naval Air Warfare Center Aircraft Division (NAWCAD) MRTFB Test and Evaluation capabilities IAW DoDD 3200.11. Reimburses the Command for General and Administrative Support services. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

List Item No. & Name	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost

D. ACQUISITION STRATEGY: Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE:		
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605864N, TEST AND EVALUATION SUPPORT			PROJECT NUMBER AND NAME 2921, PACIFIC MISSILE RANGE FACILITY				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2921 PACIFIC MISSILE RANGE FACILITY		5.048	5.336	4.945	5.051	5.173	5.258	5.356	5.459
RDT&E Articles Qty		NOT APPLICABLE							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides continuing maintenance and operations support for Test & Evaluation (T&E) related capabilities at the Pacific Missile Range Facility (PMRF) located at Barking Sands on Kauai, HI. PMRF's T&E capabilities include precision radar and telemetry assets, the Mobile Aerial Target Support System (MATSS), and optical tracking systems. These assets support Navy, DOD, and Army Missile Defense Test & Evaluation. This project funds costs not chargeable to customers.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

PMRF Test & Evaluation Assets	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	5.048	5.336	4.945	5.051
RDT&E Articles Qty				

This project funds the overhead/institutional costs required to sustain the recognized Major Range Test Facility Base (MRTFB) capabilities at PMRF in accordance with Department of Defense Directive 3200.11. Funds are used to maintain and operate mission essential/core test support resources including the precision radar and telemetry assets, the Mobile Aerial Target Support System (MATSS), the Stabilized High-accuracy Optical Tracking System (SHOTS), and the Telemetry Systems required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburses the Command for General and Administrative support services.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

List Item No. & Name	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost

D. ACQUISITION STRATEGY: Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE:			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E,N / BA-6			0605864N, TEST AND EVALUATION SUPPORT			2922, MRTFB MAINT AND REPAIR				
COST (\$ in Millions)			FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
2922 MRTFB MAINT AND REPAIR			14.038	14.608	14.978	15.907	16.459	16.887	17.167	17.464
RDT&E Articles Qty			NOT APPLICABLE							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funding for the maintenance and repair of the Major Range Test Facility Base (MRTFB) Real Property Maintenance Activities (RPMA) at the Naval Air Warfare Center Weapons Division (W0653) and the Naval Air Warfare Center Aircraft Division (0654). Funds mission critical emergency services, recurring maintenance and repair, and major repair projects. In addition it addresses priority items on the Backlog of Maintenance and Repair (BMAR) list.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Facility Maintenance and Repair	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	14.038	14.608	14.978	15.907
RDT&E Articles Qty				

Support mission critical emergency services, recurring maintenance and repair, and minor and major repair efforts at the Naval Air Warfare Center Weapons Division and Naval Air Warfare Center Aircraft Division.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

<u>List Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>

D. ACQUISITION STRATEGY: Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E,N / BA-6		0605864N, TEST AND EVALUATION SUPPORT			3029, T&E POLICY SUPPORT				
COST (\$ in Millions)		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3029 T&E POLICY SUPPORT		.610	.651	.675	.708	.749	.775	.780	.786
RDT&E Articles Qty		NOT APPLICABLE							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funds to support Test and Evaluation (T&E) policy, transformation, programming, requirements validation, and T&E dispute arbitration and resolution in an evolutionary acquisition environment. This expertise is also used as required to support the completion of the Navy T&E mission including oversight of T&E plans for Navy and Joint acquisition programs, liaison with other agencies on T&E matters, development of T&E strategic plans, conduct of T&E studies and assessments, formulation and validation of T&E capability needs, assessment and support of future testing of formal acquisition programs, and identification of Science and Technologies required to support T&E of future acquisition programs.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

T&E Policy & Requirements Validation Support	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.610	.651	.675	.708
RDT&E Articles Qty				

Provides funding for labor, material, and travel in support of the Test and Evaluation (T&E) policy and requirements validation.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

List Item No. & Name	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost

D. ACQUISITION STRATEGY: Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification							DATE:				
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E_N / BA-6				0605864N, TEST AND EVALUATION SUPPORT			3154, NANOOSE AND DABOB				
COST (\$ in Millions)				FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3154 NANOOSE AND DABOB				11.204	11.114	11.461	11.776	12.105	12.305	12.503	12.712
RDT&E Articles Qty				NOT APPLICABLE							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides maintenance and operations support for the Nanoose and Dabob Bay Ranges along with associated support systems to provide Test and Evaluation (T&E) and readiness assessment services for acquisition programs and the Fleet. Operates ocean-based environment, measurement and support systems. Maintains and repairs systems that measure warfare system performance. Oversees test, training, and measurement facilities, equipment, operations and maintenance processes. Satisfies customer exercise and measurement requirements through the operation of ocean based test and measurement systems. Assures the readiness of systems through the implementation of calibration, maintenance, repair and life cycle processes. Performs exercise planning, exercise interpretation and development of surrogate environments, measurement and support systems. Assists in the design, fabrication and testing of systems for Undersea Warfare (USW) warfare environment simulation and performance measurement. Oversees the manning and maintenance of Naval Undersea Warfare Center (NUWC) Division Keyport range craft and range craft systems.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Undersea Ranges	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	10.033	9.723	9.919	10.187
RDT&E Articles Qty				

This project funds the overhead/institutional costs required to sustain the Major Range Test Facility Base (MRTFB) capabilities at the Nanoose and Dabob Bay undersea tracking ranges. Funds are used to maintain and operate mission essential/core test support resources associated with the unique test environments for test and evaluation of undersea weapons, sensors, submarines and other undersea systems required to meet customer test workload. Funds civilian labor, travel, transportation, equipment, supplies, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations. Reimburses the Command for General and Administrative support services.

Canadian Memorandum of Understanding (MOU)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	1.171	1.391	1.542	1.589
RDT&E Articles Qty				

Covers the cost of the Memorandum of Understanding (MOU) between NUWC Division Keyport and Canadian Forces Maritime Experimental Test Range (CFMETR). Costs include United States, Navy (USN) funded personnel, jointly shared Operations and Maintenance (O&M) costs, personnel overtime at USN request, fuel, second range vessel, and helicopter usage.

C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

<u>List Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Complete</u>	<u>Total Cost</u>

D. ACQUISITION STRATEGY: Not Applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605865N
PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
Total PE	12,674	11,831	12,176	12,206	12,663	12,847	12,955	13,063
0831 OPERATIONAL TEST & EVALUATION FORCE (OPTEVFOR) SUPPORT	12,207	11,366	11,695	11,719	12,159	12,334	12,438	12,542
2923 NAVY JT&E SUPPORT	467	465	481	487	504	513	517	521

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element provides Commander, Operational Test and Evaluation Force (COMOPTEVFOR) general support funding. This funding ensures COMOPTEVFOR compliance with Secretary of Defense (SECDEF) and Secretary of the Navy (SECNAV) directives to conduct independent operational testing and evaluation. This funding is used for headquarters support for planning, conducting, and reporting on the operational effectiveness and suitability of new and improved systems and recommending fleet usage to the Chief of Naval Operations (CNO). Funding is also used to support the CNO's Sea Power 21 initiative through support and involvement in Sea Trial and Sea Enterprise, which requires greater technical expertise to assess technological maturity and viability of analysis tools and techniques. The CNO has a continuing need for expeditious and efficient conduct of Operational Test and Evaluation (OT&E) by COMOPTEVFOR in support of training and equipping fleet forces. OT&E issues have direct long-term Navy-wide implications on the Fleet's readiness and war fighting capability. Rapid advances in technology, changes in fleet tactics, and increased complexity of weapons systems and platforms, combined with reductions in manpower, force structure, and budgets have created an increased need for technical and operational analyses that are sophisticated and timely in order to ensure an optimal return on investment of Navy resources. Funding is also provided for Navy support of the Office of the Secretary of Defense (OSD) sponsored Joint Test and Evaluation (JT&E) program.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605865N
PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2007 President's Budget Submission	12,908	11,532	11,948	12,213
Congressional Undistributed Reductions/Rescissions	6	-45	0	0
Functional Realignment for OPNAV Program Support Costs	-231	0	0	0
Non-Pay Inflation Adjustments	0	0	-4	2
Pay Raise Adjustment	0	0	36	51
Program Adjustments	0	344	328	350
Program Realignment	0	0	-137	-414
Rate Adjustments	0	0	5	4
SBIR Assessment	-9	0	0	0
FY 2008/FY 2009 President's Budget Submission	12,674	11,831	12,176	12,206

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

E. PERFORMANCE METRICS:

As indicated in section A above, funding within this program element (PE) provides for core headquarters operations and support (O&S) costs related to required operational testing and evaluation (T&E) conducted in support of Navy acquisition programs. The preponderance of funding, specifically line item R0831, provides for the annual O&S for, and the day to day operations of, the staff/headquarters of COMOPTEVFOR, located in

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: February 2007

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605865N
PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

Norfolk, Virginia. (Pursuant to DoD Financial Management Regulations and Navy financial policy guidance, as a T&E activity, COMOPTEVFOR's annual support costs are funded via RDTEEN vice OMN; hence, and unlike most RDTEEN programs, these funds provide for O&S costs typical of military field commands/activities). Within the R0831 line item, over half of the funding supports salaries of assigned civilian personnel. The remaining funds provide for other routine support costs such as travel, maintenance of real property, IT support, supplies, and other overhead/administrative support costs. The second line item within the PE, R2923, supports testing and evaluation of various Joint/multi-service programs in which the Navy shares responsibilities in support of the acquisition community. The primary metric used within the program involves support for scheduled Navy acquisition program testing and subsequent analysis and reporting of results of testing to appropriate senior Navy acquisition officials and to the Navy chain of command directly to the CNO and various OPNAV/SECNAV staff offices. The performance goal is met when all assigned/scheduled testing and reporting is supported each year. Specific test program success is measured through analytic results of testing conducted throughout the year and constant interaction with program offices, acquisition decision makers, OPNAV staff resource sponsor offices, OSD and other service T&E offices/activities, and miscellaneous other customer/stakeholders. The following metrics relate directly to the funding provided and are applicable to current operations.

	FY06	FY07	FY08	FY09
Civpers End Strength	74	77	77	77
Civpers Work Years	70	73	71	73
Number of Tests Conducted	124	133	145	158
Number of Programs Supported	668	668	668	668

UNCLASSIFIED

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605865N PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY
 PROJECT NUMBER: 0831 PROJECT TITLE: OPERATIONAL TEST & EVALUATION FORCE (OPTEVFOR) SUPPORT

COST: (Dollars in Thousands)

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
0831 OPERATIONAL TEST & EVALUATION FORCE (OPTEVFOR) SUPPORT	12,207	11,366	11,695	11,719	12,159	12,334	12,438	12,542

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides COMOPTEVFOR general support funding. This funding ensures COMOPTEVFOR compliance with SECDEF and SECNAV directives to conduct independent operational testing and evaluation. This funding is used for headquarters support for planning, conducting, and reporting on the operational effectiveness and suitability of new and improved systems and recommending fleet usage to the CNO. Funding is also used to support the CNO's Sea Power 21 initiative through support and involvement in Sea Trial and Sea Enterprise, which requires greater technical expertise to assess technological maturity and viability of analysis tools and techniques. The CNO has a continuing need for expeditious and efficient conduct of OT&E by COMOPTEVFOR in support of training and equipping fleet forces. OT&E issues have direct long-term Navy-wide implications on the Fleet's readiness and war fighting capability. Rapid advances in technology, changes in fleet tactics, and increased complexity of weapons systems and platforms, combined with reductions in manpower, force structure, and budgets have created an increased need for technical and operational analyses that are sophisticated and timely to ensure an optimal return on investment of Navy resources.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
OPTEVFOR SUPPORT	12,207	11,366	11,695	11,719

FY 2006 Accomplishments:

- Continued to operationally test and evaluate CNO projects commensurate with authorized funding level.
- Maintained level of effort associated with the DoD 5000-acquisition guidance, which requires increased COMOPTEVFOR involvement in early operational assessments, developmental testing, advanced concept technology

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605865N

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

PROJECT NUMBER: 0831

PROJECT TITLE: OPERATIONAL TEST & EVALUATION FORCE (OPTEVFOR) SUPPORT

demonstrations, and advanced technology demonstrations.

- Supported the CNO's Sea Power 21 initiatives through continuous participation in Sea Trial and Sea Enterprise efforts.

FY 2007 Plans:

- Continue all efforts of FY06.

FY 2008 Plans:

- Continue all efforts of FY07.

FY 2009 Plans:

- Continue all efforts of FY08.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605865N PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY
 PROJECT NUMBER: 2923 PROJECT TITLE: NAVY JT&E SUPPORT

Project Number & Title	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
2923 NAVY JT&E SUPPORT	467	465	481	487	504	513	517	521

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funding for Navy support of the OSD-sponsored JT&E program. This funding covers cost associated with facilities, personnel, and administrative support for T&E-focused Navy-led Joint Feasibility Studies and Joint Tests to ensure Navy compliance with requirements established by directive from the SECDEF to carry out the JT&E program. The funding is used for planning, conducting, and reporting the results of T&E-focused JT&E projects to assess the interoperability of recommendations on improvements in joint technical and operational concepts, to evaluate and validate testing methodologies having multi-service application, to assess technical or operational performance of interrelated and/or interacting systems under realistic joint operational conditions, and to provide data from joint field tests and exercises with which to validate models, simulations, and test beds. This funding is essential for Navy participation with the other services in these critical joint areas.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2006	FY 2007	FY 2008	FY 2009
JOINT TEST & EVALUATION	467	465	481	487

FY 2006 Accomplishments:

- Continued to support JT&E projects as directed by the JT&E Senior Advisory Council.

FY 2007 Plans:

- Continue all efforts of FY06.

UNCLASSIFIED

FY 2008/2009 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: February 2007

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605865N

PROJECT NUMBER: 2923

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

PROJECT TITLE: NAVY JT&E SUPPORT

FY 2008 Plans:

- Continue all efforts of FY07.

FY 2009 Plans:

- Continue all efforts of FY08.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

CLASSIFICATION:								
EXHIBIT R-2, RDT&E Budget Item Justification							DATE: FEBRUARY 2007	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /				BA-6	R-1 ITEM NOMENCLATURE 0605866N Navy Space and Electronic Warfare (SEW) Support			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	3.551	4.127	2.439	3.978	4.053	3.886	4.467	4.520
0706 EMI Reduction and Radio Frequency Mgmt.	2.616	3.135	1.669	3.170	3.322	3.039	3.395	3.427
0739 Navy C4I Top Level Requirements	0.935	0.992	0.770	0.808	0.731	0.847	1.072	1.093
Quantity of RDT&E Articles								
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
<p>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. FY 2007 includes a transfer in for spectrum relocation efforts.</p> <p>Project 0739, Navy C4I Top Level Requirements - 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.</p> <p>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.</p>								

R-1- Item No. 156

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605866N SEW Support	PROJECT NUMBER AND NAME PE Total 0605866N - Navy Space and Electronic Warfare (SEW) Support

B. PROGRAM CHANGE SUMMARY:

Funding:	FY 2006	FY 2007	FY 2008	FY 2009
Previous OSD Budget (FY 08/09 OSD Budget Control):	1.832	1.908	1.976	2.031
Current BES/OSD OMB Budget: (FY 2008/2009 OSD/OMB Controls):	2.616	3.135	1.669	3.170
Total Adjustments	0.784	1.227	-0.307	1.139
Summary of Adjustments				
Congressional Program Reductions	-0.017	-0.008	-0.318	-0.004
Congressional Increases	0.001	0.000	0.011	0.043
Execution Realignment	0.800			
Spectrum Relocation Transfer In		1.235		
Reprogramming				1.100
Subtotal	0.784	1.227	-0.307	1.139

Schedule:
Not Applicable

Technical:
Not Applicable

UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2007																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605866N SEW Support	PROJECT NUMBER AND NAME 0706 EMI Reduction and Radio Frequency Management																
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>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.</p>																		
<p>B. Accomplishment/Planned Program:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;"></th> <th style="width:12.5%;">FY 06</th> <th style="width:12.5%;">FY 07</th> <th style="width:12.5%;">FY 08</th> <th style="width:12.5%;">FY 09</th> </tr> </thead> <tbody> <tr> <td>AESOP (Integrated CPM and EMCAP)</td> <td style="text-align:center;">1.955</td> <td style="text-align:center;">2.448</td> <td style="text-align:center;">0.976</td> <td style="text-align:center;">2.470</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					FY 06	FY 07	FY 08	FY 09	AESOP (Integrated CPM and EMCAP)	1.955	2.448	0.976	2.470	RDT&E Articles Quantity				
	FY 06	FY 07	FY 08	FY 09														
AESOP (Integrated CPM and EMCAP)	1.955	2.448	0.976	2.470														
RDT&E Articles Quantity																		
<p>FY 2006 Accomplishments - 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.</p> <p>FY 2007 - FY2009 - Develop interfaces for AESOP, and other automated tools to interface with evolving network protocols and to ensure currency for 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. National and international regulations on legal spectrum use are continuously changing to accommodate the growing number of civilian and commercial devices that rely on the spectrum. To address spectrum reallocations that affect U.S. Navy ships and systems in operating areas worldwide, determine via models, analysis, research, and testing the appropriate frequency spectrum restrictions, system modes, and stand-off distances to ensure U.S. Navy compliance with national and international laws and treaties that govern spectrum use. Make recommendations to update existing combatant commands' and numbered fleets' directives regarding spectrum use in their Areas of Responsibility. Coordinate with ranges regarding impacts of spectrum reallocations for systems used during tests, such as telemetry and data collection. Update the AESOP software with the new radiation restrictions that reflect current legal requirements that result from spectrum reallocations worldwide.</p>																		
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;"></th> <th style="width:12.5%;">FY 06</th> <th style="width:12.5%;">FY 07</th> <th style="width:12.5%;">FY 08</th> <th style="width:12.5%;">FY 09</th> </tr> </thead> <tbody> <tr> <td>Automated Tools</td> <td style="text-align:center;">0.661</td> <td style="text-align:center;">0.687</td> <td style="text-align:center;">0.693</td> <td style="text-align:center;">0.700</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					FY 06	FY 07	FY 08	FY 09	Automated Tools	0.661	0.687	0.693	0.700	RDT&E Articles Quantity				
	FY 06	FY 07	FY 08	FY 09														
Automated Tools	0.661	0.687	0.693	0.700														
RDT&E Articles Quantity																		
<p>FY 2006 - Accomplishments 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.</p> <p>FY 2007 - FY2009 - 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.</p>																		
<p>R1- Item No. 156 Page 3 of 7</p>																		

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: FEBRUARY 2007
-------------------------------------------	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605866N SEW Support	PROJECT NUMBER AND NAME 0706 EMI Reduction and Radio Frequency Management
-------------------------------------------------------------	---------------------------------------------------------	------------------------------------------------------------------------------

C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	To Complete	Total Cost
Not Applicable										

D. ACQUISITION STRATEGY: *

Not Applicable

E. MAJOR PERFORMERS:

PERFORMER/RECIPIENT	CITY & STATE	BRIEF DESCRIPTION OF WORK	AWARD DATE
NSWC Dahlgren	Dahlgren, VA	Joint E3 Analysis Tool, EMCAP Validation, AESOP Support	Various
Sentel	Alexandria, VA	Automated Tools Development	Various
SSC-SD	San Diego, CA	Electromagnetic Compatibility (EMC) Support	Various

R-1 - Item No. 156

Page 4 of 7

UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: FEBRUARY 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		0605866N / Navy Space & Electronic Warfare (SEW) Support			PROJECT NUMBER AND NAME 0739 Navy C4I Top Level Requirements			
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
*Project Cost	0.935	0.992	0.770	0.808	0.731	0.847	1.072	1.093
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.

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605866N / Navy Space & Electronic Warfare (SEW) Support	PROJECT NUMBER AND NAME 0739 Navy C4I Top Level Requirements		
B. ACCOMPLISHMENTS/PLANNED PROGRAM:				
	FY 06	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	0.935	0.992	0.770	0.808
<p>FY 2006 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>FY 2008 PLANS: Continue all efforts of FY07 less those noted as completed above.</p> <p>FY 2009 PLANS: Continue all efforts of FY08 less those noted as completed above.</p>				

UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification						DATE: FEBRUARY 2007				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			PROGRAM ELEMENT NUMBER AND NAME 0605866N / Navy Space & Electronic Warfare (SEW) Support			PROJECT NUMBER AND NAME 0739 Navy C4I Top Level Requirements				
C. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	To Complete	Total Cost
Not Applicable										
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>										
Not Applicable.										
E. ACQUISITION STRATEGY: *										
Not Applicable.										

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification									Date: January 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E,N/6					R-1 ITEM NOMENCLATURE 0605867N Link Crimson		Space and Electronic Warfare Surveillance/ Reconnaissance Support			
COST (\$ in Millions)	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	Cost to Complete	Total Cost
Link Crimson/Z1034	12.827	18.098	29.071	27.531	24.395	21.348	21.799	22.260	CONT	CONT
<p>A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Established to exploit all National and Selected Service sensor systems to improve tactical support to fleet operational commanders. Project also supports fleet exercises, which provide the venue for testing modifications to existing programs and being made aware of new requirements. Funding will be used to conduct an analysis of alternative options to improve maritime domain awareness through development of auto-correlation, auto-tracking and data mining tools to fuse multi-INT data for both the timely creation of tracks and the predictive analysis of merchant vessel behavior. Additional detailed information is available at a higher level of classification.</p> <p>(U) Z1034: Established to exploit all National and Service sensor systems to improve tactical support to fleet operational commanders. Project also supports fleet exercises, which provide the venue for testing modifications to existing programs and being made aware of new requirements.</p> <p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>1. (U) FY 2006 PLAN:</p> <ul style="list-style-type: none"> • (U) (\$0.9) Joint Exercises/Training • (U) (\$0.6) Support to Littoral/Expeditionary Warfare • (U) (\$0.7) Precision Strike/Mission Planning • (U) (\$4.6) Improved Data Dissemination/Exploitation/Maritime Awareness • (U) (\$3.9) Global War on Terrorism • (U) (\$0.9) Assured Communication/Navigation • (U) (\$1.2) Information Operations <p>2. (U) FY 2007 PLAN:</p> <ul style="list-style-type: none"> • (U) (\$0.7) Joint Exercises/Training • (U) (\$2.2) Support to Littoral/Expeditionary Warfare • (U) (\$1.5) Precision Strike/Mission Planning • (U) (\$7.7) Improved Data Dissemination/Exploitation/Maritime Awareness • (U) (\$3.6) Global War on Terrorism • (U) (\$0.9) Assured Communication/Navigation • (U) (\$1.5) Information Operations 										

3. (U) FY 2008 PLAN:
- (U) (\$0.7) Joint Exercises/Training
 - (U) (\$2.4) Support to Littoral/Expeditionary Warfare
 - (U) (\$4.7) Precision Strike/Mission Planning
 - (U) (\$15.4) Improved Data Dissemination/Exploitation/Maritime Awareness
 - (U) (\$3.5) Global War on Terrorism
 - (U) (\$0.9) Assured Communication/Navigation
 - (U) (\$1.5) Information Operations
4. (U) FY 2009 PLAN:
- (U) (\$0.7) Joint Exercises/Training
 - (U) (\$2.4) Support to Littoral/Expeditionary Warfare
 - (U) (\$4.7) Precision Strike/Mission Planning
 - (U) (\$13.7) Improved Data Dissemination/Exploitation/Maritime Awareness
 - (U) (\$3.6) Global War on Terrorism
 - (U) (\$0.9) Assured Communication/Navigation
 - (U) (\$1.5) Information Operations

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>	<u>FY12</u>	<u>FY13</u>
PB07	12.827	20.073	28.855	27.309	24.167	21.113	0	0
FY08 BES	12.827	18.098	29.071	27.531	24.395	21.348	21.799	22.260
Total Adjustments	0	(1.975)	.216	.222	.228	.235	21.799	22.260
Realignment from OMN	0	0	.223	.229	.235	.242	.247	.252
Additional Years in FYDP	0	0	0	0	0	0	21.559	22.015
Contractor Services Support Reduction	0	0	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)
Congressional Adj. 8106: Revised Economic Assumption	0	(0.069)	0	0	0	0	0	0
Congressional Adj. 8023: FFRDC/MITRE	0	(0.006)	0	0	0	0	0	0
Congressional Reduction	0	(1.900)	0	0	0	0	0	0

C. OTHER PROGRAM FUNDING SUMMARY:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
O&M,N	.404	.383	.225	.231	.237	.244	.249	.254

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2007

APPROPRIATION/BUDGET ACTIVITY
RDT&E, N /BA-6 Management Support

PROGRAM ELEMENT (PE) NAME AND NO.
0605873M Marine Corps Program Wide Support

COST (\$ in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Total PE Cost	32.671	31.182	20.166	23.028	23.840	23.112	31.596	35.665
C0030 Marine Corps Studies and Analyses	6.809	6.115	6.431	6.605	6.814	6.936	7.088	7.286
C0033 Marine Corps Operational Testing & Evaluation Activity	3.184	3.659	3.814	3.903	4.012	4.085	4.376	4.716
C2330 Family of Incident Response Systems (FIRS)	6.861	3.541	1.845	4.012	4.312	3.204	11.016	14.248
C2930 Phase A Activities	10.356	11.890	8.076	8.508	8.702	8.887	9.116	9.415
C9999 Congressional Adds	5.461	5.977	0.0	0.0	0.0	0.0	0.0	0.0
Quantity of RDT&E Articles								

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

This program element (PE) provides the analytical foundation for the Marine Corps Studies System (MCSS), including mandated Mission Area Analyses and Cost and Operational Effectiveness Analyses. The MCSS is the front end of the Marine Corps' acquisition

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

B. PROGRAM CHANGE SUMMARY

	<u>FY2006</u>	<u>FY2007</u>	<u>FY2008</u>	<u>FY2009</u>
(U) FY 2007 President's Budget:	36.184	25.343	25.156	65.353
(U) Adjustments from the President's Budget:				
(U) Congressional Reductions	-0.07	-0.138		
(U) Congressional Rescissions				
(U) Congressional Increases		5.977		
(U) Reprogrammings	-2.611		-5.114	-42.509
(U) SBIR/STTR Transfer	-0.803			
(U) Minor Economic Assumptions	-0.029	-0.138	0.124	0.184
(U) FY 2008 NAVCOMPT Budget:	32.671	31.044	20.166	23.028

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2007

APPROPRIATION/BUDGET ACTIVITY
RDT&E, N /BA-6 Management Support

PROGRAM ELEMENT (PE) NAME AND NO.
0605873M Marine Corps Program Wide Support

COST (\$ in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Total PE Cost	32.671	31.182	20.166	23.028	23.840	23.112	31.596	35.665
C0030 Marine Corps Studies and Analyses	6.809	6.115	6.431	6.605	6.814	6.936	7.088	7.286
C0033 Marine Corps Operational Testing & Evaluation Activity	3.184	3.659	3.814	3.903	4.012	4.085	4.376	4.716
C2330 Family of Incident Response Systems (FIRS)	6.861	3.541	1.845	4.012	4.312	3.204	11.016	14.248
C2930 Phase A Activities	10.356	11.890	8.076	8.508	8.702	8.887	9.116	9.415
C9999 Congressional Adds	5.461	5.977	0.0	0.0	0.0	0.0	0.0	0.0
Quantity of RDT&E Articles								

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

This program element (PE) provides the analytical foundation for the Marine Corps Studies System (MCSS), including mandated Mission Area Analyses and Cost and Operational Effectiveness Analyses. The MCSS is the front end of the Marine Corps' acquisition

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

B. PROGRAM CHANGE SUMMARY

	<u>FY2006</u>	<u>FY2007</u>	<u>FY2008</u>	<u>FY2009</u>
(U) FY 2007 President's Budget:	36.184	25.343	25.156	65.353
(U) Adjustments from the President's Budget:				
(U) Congressional Reductions	-0.07	-0.138		
(U) Congressional Rescissions				
(U) Congressional Increases:		5.977		
(U) Reprogrammings	-2.611		-5.114	-42.509
(U) SBIR/STTR Transfer	-0.803			
(U) Minor Economic Assumptions	-0.029	-0.138	0.124	0.184
(U) FY 2008 NAVCOMPT Budget:	32.671	31.044	20.166	23.028

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification						DATE: February-07		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-6 Management Support			PROGRAM ELEMENT NUMBER AND NAME 0605873M Marine Corps Program Wide Support			PROJECT NUMBER AND NAME C0033 Marine Corps OT&E Activity		
COST (\$ in Millions)								
	FY 2006	FY 2007	FY 2008	FY 2009	FY2010	FY2011	FY2012	FY2013
Project Cost	3.184	3.659	3.814	3.903	4.012	4.085	4.376	4.716
RDT&E Articles Qty								
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
<p>The Marine Corps Operational Test and Evaluation Activity (MCOTEA) supports the material acquisition process by managing the Marine Corps Operational Test (OT) programs for Acquisition Categories (ACAT) I through ACAT IV (less OT of manned aircraft) and performs other functions that may be directed by the Commandant of the Marine Corps. The primary purpose of Operational Test and Evaluation (OT&E) is to provide information to the Milestone Decision Authority (MDA) regarding the Operational Effectiveness (OE) and Operational Suitability (OS) of the system addressed at a decision point. MCOTEA must ensure that the Marines in the Operating Forces receive the very best possible equipment and support. MCOTEA must also ensure each system proposed for acquisition is tested adequately, evaluated objectively and reported independently.</p>								
(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:								
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009				
Accomplishment/Effort Subtotal Cost	0.398	0.484	0.540	0.564				
RDT&E Articles Qty								
MCOTEA: Provide for Organizational Support and Utilities.								
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009				
Accomplishment/Effort Subtotal Cost	2.603	2.990	3.120	3.270				
RDT&E Articles Qty								
MCOTEA: Provide for organizational salaries.								
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009				
Accomplishment/Effort Subtotal Cost	0.183	0.185	0.000	0.000				
RDT&E Articles Qty								
MCOTEA: Provide organizational support, utilities, and salaries for the new Automation Information Systems (AIS) test branch.								
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009				
Accomplishment/Effort Subtotal Cost	0.000	0.000	0.154	0.069				
RDT&E Articles Qty								
MCOTEA: Organizational Support, Administration, Logistics, and Executive Travel								
(U) Total \$	3.184	3.659	3.814	3.903				

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February-07

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-6 Management Support	0605873M Marine Corps Program Wide Support	C0033 Marine Corps OT&E Activity

(U) PROJECT CHANGE SUMMARY:	FY 2006	FY 2007	FY 2008	FY 2009
(U) FY 2007 President's Budget:	3.525	3.673	3.79	3.873
(U) Adjustments from the President's Budget:				
(U) Congressional Program Reductions				
(U) Congressional Rescissions				
(U) Congressional Increases				
(U) Reprogrammings	-0.329			
(U) SBIR/STTR Transfer	-0.014			
(U) Minor Affordability Adjustments	0.002	-0.014	0.024	0.03
(U) FY 2008 OSD Budget:	3.184	3.659	3.814	3.903

CHANGE SUMMARY EXPLANATION:

(U) Funding: See Above.

(U) Schedule:

(U) Technical:

(U) C. OTHER PROGRAM FUNDING SUMMARY:	Not Applicable									
Line Item No. & Name	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost

N/A

(U) Related RDT&E: Not Applicable.

(U) D. ACQUISITION STRATEGY Not Required.

(U) E. MAJOR PERFORMERS: Not Applicable.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2007
------------------------------------------------------	--------------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-6 Management Support	PROGRAM ELEMENT NUMBER AND NAME 0605873M Marine Corps Program Wide Support	PROJECT NUMBER AND NAME C2330 Family of Incident Response Systems (FIRS)
---------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

COST (\$ in Millions)	FY 2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Project Cost	6.861	3.541	1.845	4.012	4.312	3.204	11.016	14.248
RDT&E Articles Qty								

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
 The Family of Incident Response Systems (FIRS) consists of equipment, systems, and services designed to provide weapons of mass destruction (WMD) incident response forces the capabilities they need to effectively respond to a terrorist attack using Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives (CBRNE) weapons of mass destruction. The Family of Incident Response Systems meets the mission requirements for the detection; mass casualty decontamination; force protection; responder inter-agency interoperability; C4I; urban search and rescue; medical and general support requirements needed by these forces to mitigate the effects of a CBRNE terrorist attack. The Family of Incident Response Systems relies primarily on Commercial Off-The-Shelf/Non-Developmental Items (COTS/NDI) equipment and systems that meet the particular mission requirements of Consequence Management (CM). Nuclear, Biological, and Chemical (NBC)

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	3.540	2.304	0.933	2.100
RDT&E Articles Qty				

FIRS: Reconnaissance Mission Area. Includes: 1) assessment of emerging technologies for Toxic Industrial Chemical detection and identification in conjunction with the Department of Homeland Security and the Technical Support Working Group 2) design and integration of an Advanced Mobile Lab for Chemical Warfare Agents, Non-traditional Agents, Biological Warfare Agents and Radiological Materials 3) assessment of Hand-Held Biological Detection Systems 4) transition of the Field Chemical Analytical Tool (GC/MS) Small Business Innovative Research (SBIR) Program (N03-001) 5) transition of the Multi-Toxic Industrial Chemical Colormetric Badge SBIR program (N02-117) 6) transition of the Special Operations Remote Agent Detector (SORAD) hand held chemical standoff detector developed by the Special Operations Command (SOCOM) 7) feasibility study for the use of tethered airborne sensors, camera and antennas for consequence management 8) transition of the Individual Chemical Alarm System SBIR program (CBD02-203) 9) transition of hand-held biosensor SBIR program (N02-118) 10) Product Improvement of the Chemical Biological Incident Response Force (CBIRF) Standoff Chemical Agent Detector. Incorporates previous CBIRF RDT&E activities.

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	0.150	0.150	0.100	0.150
RDT&E Articles Qty				

FIRS: Search and Rescue (SAR) Mission Area. Includes 1) assessment of emerging technologies to locate viable casualties through debris of a collapsed building or through standing structures, such as walls and doors 2) evaluation of Commercial Off the Shelf (COTS) and emerging SAR tools. Incorporates previous CBIRF RDT&E activities.

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	0.150	0.150	0.100	0.350
RDT&E Articles Qty				

FIRS: Decontamination Mission Area includes 1) assessment of the effectiveness of packetized liquid decon solutions in civilian mass casualty events 2) development and evaluation improved mass casualty decon equipment and procedures. Incorporates previous CBIRF RDT&E activities.

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	0.300	0.150	0.100	0.150

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2007
------------------------------------------------------	--	--------------------------------------

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-6 Management Support	0605873M Marine Corps Program Wide Support	C2330 Family of Incident Response Systems (FIRS)

RDT&E Articles Qty

FIRS: C4I Mission Area includes 1) technology assessments 2) field user evaluations 3) prototypes.

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	0.790	0.500	0.300	0.731
RDT&E Articles Qty				

FIRS: Force Protection Mission Area Includes the 1) transition of the Improved Level A Protective Ensemble developed in concert with Technical Support Working Group (TSWG) 2) development of an automatic filter breakthrough monitor for Powered Air Purifying Respirators 3) radiation hardness survey and assessment of COTS CM equipment 4) commercial filter testing 5) transition of Heat stress calculator (TSWG) program. Incorporates previous CBIRF RDT&E activities.

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	0.178	0.100	0.100	0.100
RDT&E Articles Qty				

FIRS: Medical Mission Area Includes 1) development and testing of mass casualty ventilation systems for nerve agent casualties 2) evaluation of patient tracking systems 3) field user evaluations.

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	1.034	0.187	0.212	0.431
RDT&E Articles Qty				

FIRS: General Support Mission Area Includes 1) Prototyping and testing of modified COTS and GOTS vehicles for the deployment of incident response equipment (EOD, SAR).

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	0.568	0.000	0.000	0.000
RDT&E Articles Qty				

Multi-Sensor Analyzer Detector (MSAD) III: Research and development of a Multi-Sensor/Analyzer Detector (MSAD) and data-fusion architecture for chem-bio agents, toxic industrial chemicals/materials (TIC/TIM) and toxins.

COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost	0.151	0.000	0.000	0.000
RDT&E Articles Qty				

Deferral				
TOTAL	6.861	3.541	1.845	4.012

(U) PROJECT CHANGE SUMMARY:	FY06	FY07	FY08	FY09
(U) FY 2007 President's Budget:	8.651	3.554	2.533	12.111
(U) Adjustments from the President's Budget:				

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

February 2007

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-6 Management Support	0605873M Marine Corps Program Wide Support	C2930 Phase 0 Activities

COST (\$ in Millions)					FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Project Cost					10.356	11.890	8.076	8.508	8.702	8.887	9.116	9.415

RDT&E Articles Qty

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

Pre-Phase A Activities include assessments, surveys, and planning activities in support of the requirements generation system to mature, limit, clarify and define requirements before competition for resources in the POM process and transition to acquisition management. This effort will complement the currently funded Marine Corps Systems Command (MCSC) Phase A Activities line to pursue a limited range of items on a priority basis, examining critical issues and alternatives. Examples of activities include but are not limited to (1) development of Operational Mode Summaries, Mission Profiles, Concepts of Employment and Acquisition Objectives, (2) mapping between legacy systems and replacements, (3) examining integration and family of systems architectural issues, (4) performing Doctrine, Organization, Training, Equipment, Support, Facilities (DOTESF) assessments and providing other key support for the Universal Needs Statement (UNS) process, (5) base-lining POM initiatives, (6) planning requirements support of evolutionary acquisition, (7) facilitating user/advocate interaction to better understand what is needed and how it will be used, and (8) supporting the Marine Requirements Oversight Council (MROC)-directed tailoring Authorized Acquisition Objective process.

Marine Corps Combat Development Command (MCCDC) averages approximately 62 UNS requests per year addressing new requirements, of which approximately 20% require expedited processing. Quick reaction assessment and planning is likely to support requirements emerging from current real world operations. Clear Facilities, a Command Element (CE) Army Research Laboratory (ARL) item (supported by the Marine Corps Ground Combat Element (GCE)) requiring a continuum of materiel solutions (family of systems) to enable lethal clearing of a broad range of man-made structures in multiple environments/tactical situations typifies a requirement needing pre-Phase A support. Supporting activities have centered around decomposition of the mission into 460 specific tasks accompanied by development of an operational concept, objectives and key performance parameters, and warfighter prioritization. The end product will be a requirements road map. The end state will be a process and product to guide both POM and acquisition activities.

These activities do not overlap/conflict with Mission Area Analysis and Analysis of Alternatives funded within the MCCDC Studies and Analysis (S&A) program, MCSC Phase A Activities, Marine Corps Warfighting Lab (MCWL) warfighting experimentation or Science and Technology (S&T) activities. Pre-phase A Activities allow high priority requirements to move ahead in advance of funding decisions for specific programs, provide a better capability to react to emerging requirements and improve the quality of initiatives brought to the POM process. Through front-end assessment, relatively modest funding can be leveraged into significant cost and schedule savings, bringing needed capabilities to the operating forces sooner and cheaper. Each POM cycle provides examples of initiatives that are unfunded or delayed by an immature requirement or understanding of alternatives. In other cases the initiative is funded but the acquisition cycle stretches out until the requirement is better understood. Pre Phase A facilitates a timely and more efficient process.

Phase A Activities consist of a series of interrelated activities in Phase A (previously known as Phase 0) of the acquisition process designed to investigate potential material solutions to validate needs, estimate program costs, support sound business decisions, correct inherent disconnects between the Programming, Planning, Budgeting and Execution (PPBE) cycle, the Combat Development and Acquisition Management Systems, and prevent undue delays in pursuing priority requirements. The process supports Commanding General (CG), MCCDC and Commander, Marine Corps Systems Command (COMMARCORSSYSCOM) by providing funding to priority programs, thus allowing for the examination of concepts and alternatives to support an orderly transition from requirements to initiatives and initiatives to funded programs. This will permit the POM process to focus on activities of evaluating, prioritizing and integrating rather than defining and resolving raw, immature requirements. Phase A activities literally "jump start" high priority programs of the acquisition process. Furthermore, since 70% of a program's life cycle cost is determined during Phase A, this initiative will put resources to work where the return on investment (payoff) is the greatest. Typical studies conducted with Phase A activities include but Case Analysis (BCA), Cost as an Independent Variable (CAIV) analysis, Life Cycle Cost Estimates, Cost Comparison Analysis, Acquisition Strategies, Trade-off Analysis in lieu of an Analysis of Alternatives.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

February 2007

APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-6 Management Support	PROGRAM ELEMENT NUMBER AND NAME 0605873M Marine Corps Program Wide Support	PROJECT NUMBER AND NAME C2930 Phase 0 Activities
---------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------------------------------------------------

MAGTF Expeditionary Family of Fighting Vehicles (MEFFV): JROC Decision Memorandum 038-04 directed the Army and Marine Corps to co-develop the Army's Future Combat Systems (FCS) and the MAGTF (MEFFV) as a joint program. MEFFV is the USMC Combat Vehicle Replacement program to replace the capabilities provided currently by Tanks and Light Armored Vehicles. Per MROC direction, the MEFFV program will: (1) Work to ensure harmonization between the FCS Network and USMC Network; (2) Assess FCS technologies & platforms for applicability to USMC capability requirements; and (3) evaluate the applicability of FCS Manned Ground Vehicles for USMC adoption/use. This program is specifically designed to implement the Marine FCS Engagement Strategy to adopt FCS components suitable for MAGTF use within operational concept of Expeditionary Maneuver Warfare (EMW). The project will support transition/integration of FCS Command and Control components to MAGTF C2 and other USMC C4I initiatives where appropriate, key survivability and mobility components in the near term to enhance manned vehicle where suitable, and support modernization of manned and unmanned vehicles as USMC platforms reach their End of Service (EoS).

To satisfy the emerging requirements, the Deputy Commandant for Combat Development is leading the MEFFV effort to conduct Joint Capability Integration and Development System analysis to establish a capabilities framework specifically tailored to assess technologies for transition to the MAGTF. During the timeframe (2004-2010) MEFFV efforts are directed at capability refinement and integration, analysis of multiple concepts, determining technology objectives, and continued development of Initial Capabilities Documents (ICDs) and Capabilities Development Documents supporting Spin Out technology transitions. This budget item supports combat development activities supporting the three MROC priorities in compliance with JROC and USD AT&L guidance to participate in a Joint Program with the Army's Future Combat Systems Program.

(U) ACCOMPLISHMENTS/PLANNED PROGRAM:

COST (\$ in Millions)					FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost					2.289	2.616	2.725	2.799
RDT&E Articles Qty								

Initiate and complete high priority Milestone 0/Phase A activities for Market Surveys, Business Case Analysis, Requirements, Integration and Trade-Off Studies, Life Cycle Cost Estimates and associated Acquisition Strategies for the following programs: Logistics Vehicle System Replacement, Advanced Armor, Marine Corps Enterprise Information Technology Services, Unmanned Aerial Vehicles (UAVs), Sensor Fusion, Marine Expeditionary Rifle Squad/Distributed Operations, Internally Transportable Vehicle and the Expeditionary Fire Support System.

COST (\$ in Millions)					FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost					3.861	4.031	4.143	4.248
RDT&E Articles Qty								

Provides for the conduct of high priority Pre-Phase A Activities for Reconnaissance Surveillance Target Acquisition, Joint Tactical Radio System, Assault Breacher Vehicle, Follow-On Shoulder Launcher Weapon System (Analysis of Alternative/Op Mode Summary/Mission Profile) War Reserve Materiel Requirement Development, Tier II UAV concept of employment & Initial Capabilities Document, Force Protection concepts and requirements assessments, establish alternatives for the Joint Light Tactical Vehicle, traceability findings for seabasing capabilities of the future, provide for integration of concepts for the Joint command and control arena, and examine engineering initial capabilities concepts. Systematically improves the requirements and capabilities determination process by supporting the mechanisms and tools required for initial setup and continuing development of the Joint Capabilities Integration and Development System (JCIDS) process; support tools, collaboration, and mechanisms that continue the refinement and enhancement of both the Expeditionary Maneuver Warfare Capabilities List (ECL) and Expeditionary Forces Development System (EFDS) ensuring the identification and prioritization of clearly defined capability gaps.

COST (\$ in Millions)					FY 2006	FY 2007	FY 2008	FY 2009
Accomplishment/Effort Subtotal Cost					4.206	5.243	1.208	1.461
RDT&E Articles Qty								

Force Design Trades: Employ the Joint Capability Integration and Development System to derive roles, capability needs and attributes of MAGTF armor units performing in future service and joint operational concepts. Complete Functional Solution Analysis (FSA) and Concept Decision for MAGTF needs potentially addressed by FCS systems, components or Spin Out products. Develop Expeditionary Armored Forces (EAF) mission profiles and operational mode summary. Develop an Operations and Organization documents for FCS Spin Out products potentially meeting MAGTF needs. Conduct an EAF Evaluation Strategy, providing metrics or the needed capabilities. Provide personnel and travel necessary to participate in FCS and Unit of Action IPTs and planning for FCS Spin Out products.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

February 2007

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-6 Management Support	0605873M Marine Corps Program Wide Support	C2930 Phase 0 Activities

Technology Assessments: To support MCCDC JCIDS assessments of Army FCS capabilities. Technology assessments will be conducted to define technology maturity/readiness and issues for potential USMC adoption. Technology assessments, technology development strategy and consideration of technology issues shall be used to evaluate FCS technologies, including Spin Outs, and platforms (combat vehicles, UAVs, Unmanned Ground Vehicles, unattended sensors, and unattended munitions) of interest, based on developing MCCDC Initial Capabilities Documents (ICD) and Capability Development Documents (CDD). This shall include market research to determine alternate sources of technology. In support of MROC directed C4I integration with FCS, assess architecture commonality, and assess/resolve technology barriers to C4I interoperability/integration. Such technology assessment activities shall be coordinated with the Office of Naval Research including monitoring Functional Naval Capabilities (FNC) developments for component commonality opportunities and participating in joint ONR/FCS technology initiatives. In support of FCS assessment, explore survivability initiatives through service and joint wargames and experiments and initiate risk studies.

Systems Integration Plan: Develop the architecture based Systems Engineering Plan to support development and integration in preparation for Systems Development and Demonstration tasks. Establish a database compatible with both the Expeditionary Force Development System for DOTMLPF Integration and the Army's FCS Systems Integration methodologies for current and future MAGTF systems design integration. Develop modeling and simulation approach and determine feasibility of FCS components on MAGTF systems. Populate EFDC system integration database based on capability options for meeting Expeditionary Maneuver Warfare (EMW) capability needs. Evaluate design excursions. Examine risk mitigation methodologies. Build business technology evaluation plan and strategy for measuring progress.

Office and Acquisition Analysis: Fund capabilities, acquisition and technology team documentation development and coordinate successive integration of activities. Administrative support, (Systems Engineering and Technical Assistance (SETA))/contractor support. Project office travel, training and office materials.

(U) Total \$	10.356	11.890	8.076	8.508
--------------	---------------	---------------	--------------	--------------

(U) PROJECT CHANGE SUMMARY:

	FY2006	FY2007	FY2008	FY2009
(U) FY 2007 President's Budget:	10.904	11.954	12.442	42.815
(U) Adjustments from the President's Budget:				
(U) Congressional/OSD Program Reductions				
(U) Congressional Rescissions				
(U) Congressional Increases				
(U) Reprogrammings	-0.287		-4.414	-34.380
(U) SBIR/STTR Transfer	-0.269			
(U) Minor Affordability Adjustment	0.008	-0.064	0.048	0.073
(U) FY 2008 President's Budget:	10.356	11.890	8.076	8.508

CHANGE SUMMARY EXPLANATION:

- (U) Funding: See Above.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

(U) C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable

(U) Related RDT&E: Not Applicable.

(U) D. ACQUISITION STRATEGY: Not Required.

(U) D. SCHEDULE PROFILE: Not Applicable.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2007

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N /BA-6 RDTE Management Support	0605873M MC Program Wide Support	C9999 Congressional Adds

COST (\$ in Millions)					FY 2006	FY 2007	FY 2008	FY 2009	FY2010	FY2011	FY2012	FY2013
Project Cost					5.461	5.977	0	0	0	0	0	0
RDT&E Articles Qty												

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

The Family of Incident Response Systems (FIRS) consists of equipment, systems, and services designed to provide weapons of mass destruction (WMD) incident response forces the capabilities they need to effectively respond to a terrorist attack using Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives (CBRNE) weapons of mass destruction. The Family of Incident Response Systems meets the mission requirements for the detection; mass casualty decontamination; force protection; responder inter-agency interoperability; C4I; urban search and rescue; medical and general support requirements needed by these forces to mitigate the effects of a CBRNE terrorist attack. The Family of Incident Response Systems relies primarily on Commercial Off-The-Shelf/Non-Developmental Items (COTS-NDI) equipment and systems that meet the particular mission requirements of Consequence Management (CM). Nuclear, Biological, and Chemical (NBC) systems are adopted if they meet the CM mission requirements. The Family of Incident Response Systems (FIRS) R&D effort allows the program to keep abreast of emerging technologies in the commercial sector and address operational capability gaps that cannot be met by commercial items.

The Marine Corps Corrosion Prevention and Control (CPAC) Program Office determined the Marine Corps maintenance reporting system does not provide sufficient information to determine the condition of assets as related to corrosion, the cost of corrosion or mission readiness related to corrosion. Over the past three years processes have been developed for assessing the degree of corrosion induced degradation of Ground Combat and Combat Support equipment. The development of this process has been funded 100% by Congressional Plus-Ups. This Marine Corps corrosion assessment process and associated data repository is under the cognizance of the CPAC Program Office. To date, this office has conducted corrosion assessments of all Marine Corps Ground Combat and Combat Support equipment except those in-theatre, pre-positioned storage and training commands. Additionally, we are in the process of completing MARFORRES. We now utilize this assessment data to determine the cost of corrosion for Marine assets.

USMC Logistics Modernization - The Integrated Logistics Concept (ILC) Analysis provided the foundation for logistics transformation within the Marine Corps and established a compliance response to Defense Reform Initiative Directive (DRID) 54, directing that logistics transformation be accomplished throughout the service components. The ILC Analysis was completed during an 18 week engagement beginning in late October 1998 to early February 1999. This analysis concluded with a high level business Case Analysis (BCA). The BCA concluded conservatively that accomplishing the ILC actions (including re-engineered IT among others) would reduce Marine Corps inventories and reduce support requirements allowing the shifting of (2000) Marines from logistics to the battlefield by 2004 (given the current timelines). ILC action will also result in: lighter, more flexible and easier to move MAGTF; Higher Combat Support System (CSS) responsiveness: reduced stocks and CSS footprint inside the MAGTF; Less equipment for Warfighter to manage; rapidly scalable and deployable CSS units that have worldwide inventory visibility.

Detection and Recovery of Unexploded Ordnance (UXO) - Detection and recovery issues of unexploded ordnance in the vicinity of Browns Island at Camp Lejeune North Carolina.

COST (\$ in Millions)					FY06	FY07	FY08	FY09
Accomplishment/Effort Subtotal Cost					0.958	0.000	0.000	0.000
RDT&E Articles Qty								

CBIRF NCR Integration 9882N: This effort funds the coordination of communications, training, exercises and operational plans between the USMC CBIRF and Virginia, Maryland, and Washington, DC first responder organizations.

COST (\$ in Millions)					FY06	FY07	FY08	FY09
Accomplishment/Effort Subtotal Cost					1.438	0.996	0.000	0.000
RDT&E Articles Qty								

Corrosion Service Teams 9883N: In FY06 funds were provided to the Corrosion Control Program for test and evaluation of corrosion products and materials for military equipment, storage methods, corrosion training and other Corrosion Prevention and Control (CPAC) tasks within joint service and OSD-ATL-CPAC specifications, standards and policies.

COST (\$ in Millions)					FY06	FY07	FY08	FY09
Accomplishment/Effort Subtotal Cost					0.958	0.000	0.000	0.000
RDT&E Articles Qty								

Detect & Recovery of UXO, Bn Is, CLNC 9884N: Detection and recovery issues of unexploded ordnance in the vicinity of Browns Island at Camp Lejeune North Carolina.

COST (\$ in Millions)					FY2006	FY2007	FY2008	FY2009
-----------------------	--	--	--	--	--------	--------	--------	--------

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification										DATE: February 2007		
APPROPRIATION/BUDGET ACTIVITY					PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME		
RDT&E, N /BA-6 RDTE Management Support					0605873M MC Program Wide Support					C9999 Congressional Adds		
Accomplishment/Effort Subtotal Cost					2.107					0.000		
RDT&E Articles Qty												
<p>MC Operational Log Modernization 9885N: The Congressional Plus Up for the USMC Logistics Modernization will be used to integrate logistics systems technology in support of systems deployed to Iraq and logistics systems that are part of our modernization systems portfolio. Systems to be funded include: Life Cycle Modeling Integrator (LCMI)/Marine Corps Equipment Readiness Information Tool (MERIT); Warehouse To Warfighter (W2W); Transportation Capacity Planning Tool (TCPT); and Battle Command Sustainment, Support System (BCS3).</p>												
COST (\$ in Millions)					FY06		FY07		FY08		FY09	
Accomplishment/Effort Subtotal Cost					0.000		0.996		0.000		0.000	
RDT&E Articles Qty												
<p>Field Rapis Assay Biological System, CLNC 9A63N: This Congressional add supports Field Rapid Assay Biological System within PE 0605873M</p>												
COST (\$ in Millions)					FY06		FY07		FY08		FY09	
Accomplishment/Effort Subtotal Cost					0.000		0.996		0.000		0.000	
RDT&E Articles Qty												
<p>Individual Chemical Alert System, CLNC 9A64N: This Congressional add supports Individual Chemical Alert System (ICAS) within PE 0605873M</p>												
COST (\$ in Millions)					FY06		FY07		FY08		FY09	
Accomplishment/Effort Subtotal Cost					0.000		2.989		0.000		0.000	
RDT&E Articles Qty												
<p>Tactical Air Sentinel, CLNC 9A65N: This Congressional add supports Tactical Air Sentinel within PE 0605873M</p>												
(U) Total \$					5.461		5.977		0.000		0.000	
(U) PROJECT CHANGE SUMMARY:												
					FY 2006	FY 2007	FY 2008	FY 2009				
(U) FY 2007 President's Budget:					5.7	0	0	0				
(U) Adjustments from the President's Budget:												
(U) Congressional Program Reductions					-0.057							
(U) Congressional Rescissions												
(U) Congressional Increases					6.0							
(U) POM 06 Core Adjustment												
(U) Reprogrammings												
(U) SBIR/STTR Transfer					-0.158							
(U) Minor Affordability Adjustment					-0.024	-0.023						
(U) FY 2008 OSD Budget:					5.461	5.977	0	0				
CHANGE SUMMARY EXPLANATION:												
(U) Funding: See above.												
(U) Schedule: Not Applicable.												
(U) Technical: Not Applicable.												
(U) C. OTHER PROGRAM FUNDING SUMMARY:												
Line Item No. & Name		FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost	
(U) Related RDT&E:												
(U) D. ACQUISITION STRATEGY:												
(U) E. MAJOR PERFORMERS:												

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2007

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME					
RDT&E, N /BA-6 Management Support	0605873M Marine Corps Program Wide Support				C2330 Family of Incident Response Systems (FIRS)					
(U) Congressional/OSD Program Reductions	-0.009									
(U) Congressional Rescissions										
(U) Congressional Increases										
(U) Reprogrammings	-1.624		-0.700	-8.129						
(U) SBIR/STTR Transfer	-0.153									
(U) Minor Affordability Adjustment	-0.004	-0.013	0.012	0.030						
(U) FY 2008 President's Budget:	6.861	3.541	1.845	4.012						
CHANGE SUMMARY EXPLANATION:										
(U) Funding: Change in funding represents reprioritizing of efforts within the USMC.										
(U) Schedule: Not Applicable.										
(U) Technical: Not Applicable.										
(U) C. OTHER PROGRAM FUNDING SUMMARY:										
Line Item No. & Name	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Compl	Total Cost
(U) PMC Line (BLI# 652200)	16.433	12.104	2.236	6.568	6.953	6.915	8.248	6.109	Cont	Cont
Field Medical and CBRN Incident Response										
(U) PMC Line (BLI# 667000)	59.568	1.475	0	0	0	0	0	0	0	61.043
Items Under \$5 Million										
(U) Related RDT&E: Not Applicable.										
(U) D. ACQUISITION STRATEGY: Not Required.										
(U) D. SCHEDULE PROFILE: Not Applicable.										

UNCLASSIFIED
 FY2008/2009 PRESIDENT'S BUDGET ESTIMATES

BSO: COMMANDER, U. S. FLEET FORCES COMMAND							
CLASSIFICATION:							
EXHIBIT R-2, RDT&E Budget Item Justification						DATE: 8-Jan-07	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /				BA-06	R-1 ITEM NOMENCLATURE 0305885N - Tactical Cryptologic Activities		
COST (\$ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost 0305885N	1.000	1.508	2.011	2.514	2.011	2.053	2.097
0037	1.000	1.508	2.011	2.514	2.011	2.053	2.097
Quantity of RDT&E Articles							
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This is a continuing program that will provide advanced technologies and capabilities to current Electronic Warfare/Electronic Intelligence system programs of record (POR). By developing concepts of data/information exchange within the Global Information Grid (GIG) as envisioned by Chief of Naval Operations (CNO) and outlined within the FORCEnet concept. To comply with the intent of the GIG this program will address compression, transmission, de-compression, re-compression and long term storage of targeted data/information without degradation. This program will become an enabler for future capabilities such as remote operation of surface, subsurface, and air EW/ELINT open architecture PORs. A holistic approach to data/information format, processing, transmission, and storage will require developments in antenna technology, communications capabilities, operational concepts, and software development. In order to effectively achieve these objectives the program has budgeted for a progressive increase in funding from FY07 through FY10 to account for increased cost projected in the development of new and burgeoning technologies.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: This project support the Chief of Naval Operations vision for implementation of FORCEnet.</p>							

UNCLASSIFIED
FY2008/2009 PRESIDENT'S BUDGET ESTIMATES

BSO: COMMANDER, U. S. FLEET FORCES COMMAND
CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: 8-Jan-07		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-06	PROGRAM ELEMENT NUMBER AND NAME 0305885N - Tactical Cryptologic Activities	PROJECT NUMBER AND NAME 0037		
(U) B. Accomplishments/Planned Program				
	FY 07	FY 08	FY 09	
JIIOR Management	1.000	1.508	2.011	
RDT&E Articles Quantity				
<p>FY07 PLAN:</p> <ul style="list-style-type: none"> - Electromagnetic Data/Information Compression Techniques: Develop Electromagnetic Data/Information compression techniques that will allow for the compression, transmission, de-compression, re-compression and long term storage of targeted data/information without degradation. Efficient compression techniques will improve bandwidth utilization and increase the information exchange rate via the GIG. Commercial-off-the-shelf technology will be utilized to the greatest extent possible but due to the unique requirements of certain Electromagnetic data/information analyst/customers it may be necessary to modify commercial technology or develop government technology to meet those requirements. - Remote Specific Emitter Identification/Unintentional Modulation on the Pulse (SEI/UMOP) Processing: Determine the minimum number of pulses required to be digitally forwarded for SEI/UMOP extraction at a remote site that consistently produces accurate SEI/UMOP measurements that are compliant with the national standard. The requirement for SEI/UMOP capabilities is well documented within CFFC requirement messages. - Antenna Technology Development and Advances: To continue to meet changing environmental and technology requirements, NNWC will continue to invest in advanced antenna technology in partnership with NRL, CNO, ONI, DNR, Combatant Fleet Commanders, and National partners. 				
<p>FY08 PLAN: Continue development as outlined for FY07.</p>				
<p>FY09 PLAN: Continue development as outlined for FY07.-</p>				

UNCLASSIFIED
FY2008/2009 PRESIDENT'S BUDGET ESTIMATES

BSO: COMMANDER, U. S. FLEET FORCES COMMAND

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE:	8-Jan-07
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME				PROJECT NUMBER AND NAME		
RDT&E, N / BA-6	0305885N - Tactical Cryptologic Activities				0037		
(U) C. PROGRAM CHANGE SUMMARY:							
(U) Funding:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
FY 07 President's Budget	1.004	1.508	2.011	2.514	2.011	2.053	2.097
FY08/09 FMB Submit	1.000	1.508	2.011	2.514	2.011	2.053	2.097
Total Adjustments	0.004	0.000	0.000	0.000	0.000	0.000	0.000
Summary of Adjustments							
Sec. 8106 Revised Econ	-0.004						
Total							
-0.004							
(U) Schedule:							
Not Applicable							
(U) Technical:							
Not Applicable							

**UNCLASSIFIED
FY2008/2009 PRESIDENT'S BUDGET ESTIMATES**

BSO: COMMANDER, U. S. FLEET FORCES COMMAND

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: 8-Jan-07	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME		
RDT&E, N / BA-6		0305885N - Tactical Cryptologic Activities			0037		
(U) D. OTHER PROGRAM FUNDING SUMMARY:							
<u>Line Item No. & Name</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Not Applicable							
 (U) E. ACQUISITION STRATEGY: *							
Not Applicable							
 (U) F. MAJOR PERFORMERS:							
NONE							
 (U) G. PERFORMANCE METRICS:							
NONE							
 * Not required for Budget Activities 1,2,3, and 6							

**UNCLASSIFIED
FY2008/2009 PRESIDENT'S BUDGET ESTIMATES**

BSO: COMMANDER, U. S. FLEET FORCES COMMAND

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																	DATE: 8-Jan-07											
APPROPRIATION/BUDGET / PROGRAM ELEMENT NUMBER AND NAME													PROJECT NUMBER AND NAME															
RDT&E, N / BA-06													0305885N - Tactical Cryptologic Activities								0037							
Fiscal Year	2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Milestones																												
Prototype Phase																												
System Development (e.g., Radar System dev.)																												
Equipment Delivery (e.g., EDM Radar Delivery)																												
Software 1XXSW Delivery 2XXSW Delivery																												
Test & Evaluation Milestones																												
Development Test																												
Operational Test																												
Production Milestones																												
LRIP I																												
LRIP II																												
FRP																												
Deliveries																												

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

** The minimum data set to be presented on each R-4, will consist of the items listed above if the individual data point is applicable to the particular project.

UNCLASSIFIED
FY2008/2009 PRESIDENT'S BUDGET ESTIMATES

BSO: COMMANDER, U. S. FLEET FORCES COMMAND

CLASSIFICATION:

Exhibit R-4a, Schedule Detail				DATE: 8-Jan-07			
APPROPRIATION/BUDGET ACTIVITY			PROJECT NUMBER AND NAME				
RDT&E, N / BA-6			0037				
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Prototype Phase							
System Design Review (SDR)							
Milestone II (MSII)							
Contract Preparation							
Software Specification Review (SSR)							
Preliminary Design Review (PDR)							
System Development							
Critical Design Review (CDR)							
Quality Design and Build							
Test Readiness Review (TRR)							
Developmental Testing (DT-IIA)							
Eng Dev Model (EDM) Radar Delivery - Lab							
Software Delivery 1XXSW							
Preproduction Readiness Review (PRR)							
EDM Radar Delivery - Flt Related							
Milestone C (MS C)							
Operational Testing (OT-IIA)							
Start Low-Rate Initial Production I (LRIP I)							
Software Delivery 2XXSW							
Developmental Testing (DT-IIB1)							
Developmental Testing (DT-IIB2)							
Start Low-Rate Initial Production II							
Operational Testing (OT-IIB)							
Developmental Testing (DT-IIC)							
Functional Configuration Audit (FCA)							
Low-Rate Initial Production I Delivery							
Technical Evaluation (TECHEVAL)							
Physical Configuration Audit							
Operational Evaluation (OT-IIC) (OPEVAL)							
Low-Rate Initial Production II Delivery							
IOC							
Full Rate Production (FRP) Decision							
Full Rate Production Start							
First Deployment							

UNCLASSIFIED
FY2008/2009 OSD BUDGET ESTIMATES

BSO: COMMANDER, U. S. FLEET FORCES COMMAND

CLASSIFICATION:								
EXHIBIT R-2, RDT&E Budget Item Justification							DATE: Feb-07	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /				R-1 ITEM NOMENCLATURE 0804758N - Service Support To JFCOM, JNTC				
	BA-06							
COST (\$ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost 0804758N	17.698	12.750	5.078	5.183	5.292	5.384	5.484	5.589
3152 Service Support to JFCOM/JNTC	9.750	5.179	5.078	5.183	5.292	5.384	5.484	5.589
9999 Congressional Adds	7.948	7.571						
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: In accordance with the FY 05 National Defense Authorization Act, RDT&E funding for Joint Forces Command transfers from Navy to Defense-Wide beginning in FY 07. Fleet Forces Command, Fleet Training and Technology continues to manage this RDT&E allocation since inception. This change reflect the change in execution control from JFCOM to FFC. The new program for 0804758N is 0804758D, under BA-06.</p> <p>BACKGROUND: This program supports FY04 Defense Planning Guidance (DPG) directive that Information Operations (IO) become a core military competency, fully integrated into the Department of Defense's (DoD) deliberate and crisis action planning process and capable of being executed as both supported and supporting operations. The Joint Integrated IO Range (JIOR) establishes the realistic test, training, and exercise environment for developing and operational IO weapon systems as well as Tactics, Techniques, and Procedures (TTP). JIOR facilitates this mission by providing an environment that integrates specific IO development, test, training, and exercise capabilities and resources across the Department to meet the growing needs of the Services, components, and combatant commanders. JIOR provides an environment a representative combat targets, systems, and situations that facilitate technical and performance assurance testing to certify weapon systems and enables effective and thorough Service, component, and combatant commander sponsored training and exercises. The JIOR goal is to create a flexible, seamless environment that enables combatant commanders to achieve the same level of confidence and expertise in employing IO weapons that they have with kinetic weapons.</p> <p>Beginning in FY 2007, this Program Element funds Navy's share of the Joint National Training Capability (JNTC), a component of DoD's Training Transformation (T2) initiative. Navy will develop capabilities that integrate live, virtual, and constructive elements into a seamless joint training environment. Using a scientific and phased approach, Navy will leverage and research new technologies and methods, based upon focused joint operational training requirements, that provide a crucial technology-based foundation supporting all current and "to be Navy joint training capabilities. Available commercial-off-the-shelf (COTS) and government -off-the-shelf (GOTS) networked information technologies and collaborative planning tools will be leveraged to provide improved net-centric joint training capability. Navy will lead the collaboration process to identify, collect and validate the requirements in order to design and develop the modeling and simulation capabilities that address the shortfalls in current abilities to support Joint Task training to standards. The program was previously funded in PE 0603727N.</p> <p>Program efforts directly supports the Unified Command Plan (UCP) series and is aligned with the DoD Information Operations (IO) Roadmap.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: Beginning in FY 2007, the RDT&E Budget Authority shifts from the Office of Naval Research (ONR) BA-03 to Fleet Forces Command (FFC) BA-06.</p>								
Exhibit R-2, RDEN Budget Item Justification								

UNCLASSIFIED
 FY2008/2009 OSD BUDGET ESTIMATES

CLASSIFICATION:

EXHIBIT R-2, RDT&E Project Justification		DATE: February-2007		
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE			
RDT&E, N / BA-6	0804758N - Joint Information Operations Integrated Test Range Infrastructure/JNTC			
(U) C. PROGRAM CHANGE SUMMARY:				
(U) Funding:	FY 2006	FY 2007	FY 2008	FY 2009
FY 07 President's Budget	18.149	5.202	5.202	5.302
FY08/09 FMB Submit	17.698	12.750	5.078	5.183
Total Adjustments	-0.451	7.548	-0.124	-0.119
Summary of Adjustments				
Congressional Adjustments	-0.110	7.548		
SBIR Assessment	-0.341			
Pricing Adjustments			0.032	0.040
Program Adjustments			-0.156	-0.159
Total	-0.451	7.548	-0.124	-0.119
(U) Schedule:				
Not Applicable				
(U) Technical:				
Not Applicable				

Exhibit R-2, RDTE Budget Item Justification

**UNCLASSIFIED
FY2008/2009 OSD BUDGET ESTIMATES**

CLASSIFICATION:				
EXHIBIT R-2a, RDT&E Project Justification				DATE: February-2007
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-6	0804758N - Joint Information Operations Integrated Test Ra	3152 - Joint Integrated Information Operations Range (JIOR)/JNTC		
(U) B. Accomplishments/Planned Program				
	FY 06	FY 07	FY 08	FY 09
JIIOR Management	1.965			
RDT&E Articles Quantity				
<p>FY06 ACCOMPLISHMENTS: U. S. Joint Forces Command (USJFCOM) developed approximately 60 management processes, procedures, and policies for transition of lead agent responsibilities for the Joint Integrated Information Operations Range (JIOR) development from the Office of the Under Secretary of Defense (Intelligence) to the U.S. Joint Forces Command (USJFCOM). Developed representative operational environment needed to implement a fully developed Information Operations (IO) Range capability. Developed the IO Range Concept of Operations (CONOPS). Developed Program Goals and Objectives along with Program Execution Plans. Produced Memorandum of Understanding, Memorandum of Agreements, and/or Charters between the IO Range and member sites to facilitate program management and execution. Managed the planning and development of all security issues for the IOR to include: Special Technical Operations (STO) and Special Access Programs (SAP), Communications Security (COMSEC), Operations Security (OPSEC) (applicable to IOR operations), security personnel and facilities, security hardware, software, and security systems. Coordinated the System Security Authorization Agreements (SSAA) and Interim Authority to Operate (IATO) for the IO Range and member sites. Managed and developed security plans as well as long term security infrastructure requirements. Developed initial manpower structure document addressing resources for: program management, resource management, security management, communications management, knowledge management, capabilities improvement, acquisition management, event planning, execution and sustainment. Defined, developed and chartered a Senior Advisory Group responsible for determining the best way to balance site owner concerns regarding implementation and life cycle cost changes versus the perceived or demonstrated needs of the customers. Defined, developed and chartered a Joint Integrated Process Action Team responsible for resolving scheduling, requirements, funding, priority and policy issues and other concerns of the member sites. Developed a standard data definition dictionary for the IOR to provide the common language needed to facilitate automated data sharing within the IOR community. Defined, developed and chartered a Requirements Working Group to identify, validate, and prioritize range requirements and long-range planning issues. Defined, developed and chartered a Technical Working Group to work technical issues related to the IO Range such as range connectivity, instrumentation, visualization, target configuration, etc.</p>				
	FY 06	FY 07	FY 08	FY 09
JIIOR Requirements Development, Event Planning and Execution	3.685			
RDT&E Articles Quantity				
<p>FY06 ACCOMPLISHMENTS: USJFCOM implemented a standing Information Operations network connecting selected sites that support quick creation of logical ranges for distributed events and permits secure, unrestricted communications and demonstrates connectivity of initial ten (10) sites supporting IO as directed by FY 2004 Joint Planning Guidance (JPG). Connectivity between the JFCOM, Army, Navy, Air Force and DOE sites was accomplished prior to the July 06 Initial Capability (IC). IOR event program and developing, testing, fielding, and integrating tools and technologies for the IOR initial computer network attack and integrated Computer Network Attack (CNA)/Electronic Warfare (EW) tests, training, and exercises were completed. Provided joint command and control, joint IO OPFOR, threat systems, modeling and system upgrades, technical planning and integration, and training assistance to the IOR sites. Defined the joint IO range operations management, operations process development, exercise requirements integration, training design, event scheduling, event analysis, event accreditation, and joint IO OPFOR. Planned, coordinated, executed, assessed and reported on Joint IOR operations and events. Developed charter and policy changes that may be required for IOR development, operations, and modernization while identifying requirements for capability improvements. Evaluated and analyzed IOR programs in order to identify, quantify, and evaluate the effects and interrelationships of program goals and financial resources. Evaluated and analyzed requirements to include material and non-material solutions for current operations and future capability improvements. Determined the prioritization of requirements for planning, programming and budgeting for the IOR. Identified specific site resources supporting the execution of the four IC use-cases that address; capabilities, targets, schedules, visualization and instrumentation capabilities or access mediums. Assisted in the planning, coordination, and execution of the Army, Navy and COCOM use-cases. Developed an IOR operational assessment plan and scenarios focused on Initial Capability milestones and scenario execution for Computer Network Operations (CNO). Developed instrumentation and visualization tools to meet the IOR's primary mission to provide an environment for test, training, exercising and experimenting with IO weapons, personnel and TTPs in order to build Combatant Commanders' (COCOMs) confidence in their capabilities and application.</p>				

Exhibit R-2a, Budget Item Justification

**UNCLASSIFIED
FY2008/2009 OSD BUDGET ESTIMATES**

BSO: COMMANDER, U. S. FLEET FORCES COMMAND

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February-2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-06	PROGRAM ELEMENT NUMBER AND NAME 0804758N - Service Support To JFCOM, JNTC	PROJECT NUMBER AND NAME		
(U) B. Accomplishments/Planned Program				
	FY 06	FY 07	FY 08	FY 09
JIIOR Management	0.000	5.179	5.078	5.183
RDT&E Articles Quantity				
<p>FY07 Plan: The Navy focus in FY 07 is on advancing joint training technologies that will play a crucial role in Navy's ability to address current and future joint operational training requirements. Navy program activities for FY 07 include conducting research, development, test and evaluation and cross-service architecture certification on Navy capable systems, developing architectures and roadmaps to ensure that service instrumentation follows a common standard, and researching and assessing Navy mission rehearsal, multi-level security, and Coalition / Inter-Agency integration requirements.</p>				
<p>FY08 PLAN: - U. S. Fleet Forces Command (FLFORCOM) will develop the management processes, procedures, and policies for transition of lead agent responsibilities for the Joint Integrated Information Operations Range (JIIOR) development from the Office of the Under Secretary of Defense (Intelligence) to the U.S. Joint Forces Command (USJFCOM) and the continued range development and implementation.</p>				
<p>FY09 PLAN: - U. S. Fleet Forces Command (FLFORCOM) will implement a standing Information Operations network, Navy Continuous Training Environment (NCTE) connecting high-use sites in the Fleet Concentration Areas (FCAs) and other supporting Fleet Sites that support quick creation of logical ranges for distributed training events and permits secure, unrestricted communications and will demonstrate connectivity. Follow-on efforts will continue to expand NCTE connectivity, researching and developing training scenarios that simulate real time battle operations. Support develop, test, field and integrate new and emerging technology for modernization as required for tests, training, and exercises.</p>				

Exhibit R-2a, Budget Item Justification

**UNCLASSIFIED
FY2008/2009 OSD BUDGET ESTIMATES**

CLASSIFICATION:				
EXHIBIT R-2a, RDT&E Project Justification				DATE: February-2007
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-6	0804758N - Joint Information Operations Integrated Test Ra	3152 - Joint Integrated Information Operations Range (JIOR)/JNTC		
(U) B. Accomplishments/Planned Program				
	FY 06	FY 07	FY 08	FY 09
JIIOR Range Sustainment	4.100			
RDT&E Articles Quantity				
<p>FY06 ACCOMPLISHMENTS: Supported, developed, tested, fielded and integrated technology for modernization of DoD facilities required to support DoD wide CNO and integrated CNO/Electronic Warfare tests, training, and exercises. Established, fielded, and maintained the IOR architecture backbone; providing IOR scenario drivers necessary to support realistic training, exercise, and test events; engineering services, and long term and quick turn maintenance support (hardware and software maintenance) for inter-node connectivity and sustainment; and event support sustainment. Identified and developed engineering specifications for IC and future Full Capability (FC) full spectrum IOR operations. Developed the architectural backbone to provided persistent connectivity from service delivery point to service delivery point.</p>				

Exhibit R-2a, Budget Item Justification

**UNCLASSIFIED
FY2008/2009 OSD BUDGET ESTIMATES**

BSO: COMMANDER, U. S. FLEET FORCES COMMAND

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February-2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-06		PROGRAM ELEMENT NUMBER AND NAME 0804758N - Service Support To JFCOM, JNTC		PROJECT NUMBER AND NAME			
(U) D. OTHER PROGRAM FUNDING SUMMARY:							
<u>Line Item No. & Name</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Not Applicable							
(U) E. ACQUISITION STRATEGY: Not Applicable							
(U) F. MAJOR PERFORMERS: NONE							
(U) G. PERFORMANCE METRICS: NONE							
Exhibit R-2a, Budget Item Justification							

UNCLASSIFIED
FY2008/2009 OSD BUDGET ESTIMATES

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: February-2007		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6				PROJECT NUMBER AND NAME 3152 - Joint Integrated Information Operations Range (JIOR)								
Cost Categories	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY07 Cost	FY 07 Award Date	FY08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development												0.000
Ancillary Hardware Development												0.000
Systems Engineering	Various	IO Ranges	0.700							Continuing	Continuing	0.000
Licenses			0.100							Continuing	Continuing	0.000
Eglin AFB I/O Range	Various	Various	7.300							Continuing	Continuing	0.000
Masking Shunt	Various	USJFCOM	1.000							Continuing	Continuing	0.000
Award Fees												0.000
Subtotal Product Development			9.100							Continuing	Continuing	0.000
Remarks: Execution of range development, modernization and containment through participating DoD ranges including, but not limited to: Nellis AFB, China Lake, Lackland AFB, US Army Electronic Proving Grounds, Patuxent NAS, Wright Patterson AFB, Aberdeen Proving Ground, and Ft Meade.												
Development Support	Various	IO Ranges	0.500							Continuing	Continuing	0.000
Software Development	Various	IO Ranges	0.000									0.000
Training Development	Various	IO Ranges	0.400							Continuing	Continuing	0.000
Integrated Logistics Support	Various	IO Ranges	0.150							Continuing	Continuing	0.000
Configuration Management	Various	IO Ranges	2.514							Continuing	Continuing	0.000
Event Planning	Various	IO Ranges	0.900							Continuing	Continuing	0.000
Event Execution	Various	IO Ranges	2.059							Continuing	Continuing	0.000
Training Systems Integration	Various	FLFORCOM		5.179	10/06	5.078	10/07	5.183	10/08	Continuing	Continuing	0.000
Subtotal Support			6.523	5.179		5.078		5.183		Continuing	Continuing	0.000
Remarks: Execution of range development, modernization and containment through participating DoD ranges including, but not limited to: Nellis AFB, China Lake, Lackland AFB, US Army Electronic Proving Grounds, Patuxent NAS, Wright Patterson AFB, Aberdeen Proving Ground, and Ft Meade.												

Exhibit R-3, Project Cost Analysis

**UNCLASSIFIED
FY2008/2009 OSD BUDGET ESTIMATES**

CLASSIFICATION:												
Exhibit R-3 Cost Analysis (page 2)									DATE: February-2007			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			PROJECT NUMBER AND NAME 3152 - Joint Integrated Information Operations Range (JIIR)									
Cost Categories	Contract Method & Type	Performing Activity & Location	Total Pys Cost	FY07 Cost	FY 07 Award Date	FY08 Cost	FY 08 Award Date	FY 09 Cost	FY 09 Award Date	Cost to Complete	Total Cost	Target Value of Contract
												0.000
												0.000
												0.000
												0.000
												0.000
Subtotal T&E			0.000								0.000	0.000
Remarks:												
Contractor Engineering Support	Various	IO Ranges	1.100							Continuing	Continuing	0.000
Government Engineering Support	Various	USJFCOM	0.050							Continuing	Continuing	0.000
Program Management Support	Various	USJFCOM	0.850							Continuing	Continuing	0.000
Travel	Various	USJFCOM	0.075							Continuing	Continuing	0.000
Subtotal Management			2.075							0.000	0.000	0.000
Remarks:												
Total Cost			17.698	5.179		5.078		5.183		Continuing	Continuing	0.000
Remarks:												

Exhibit R-3, Project Cost Analysis

**UNCLASSIFIED
FY2008/2009 OSD BUDGET ESTIMATES**

CLASSIFICATION:				
EXHIBIT R-2a, RDT&E Project Justification				DATE: February-2007
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0804758N - Joint Information Operations Integrated Test Range Infrastructure/JNTC			PROJECT NUMBER AND NAME 9999 - Congressional Increases
(U) B. Accomplishments/Planned Program				
	FY 06	FY 07	FY 08	FY 09
Eglin AFB I/O Range (9903)	6.990	7.571		
RDT&E Articles Quantity				
<p>FY06 ACCOMPLISHMENTS: Per Congressional action USJFCOM supported Eglin AFB Information Operation Range. Developed draft Concept of Operations (CONOPS) for conducting Live Virtual Constructive Joint Testing, Training and Exercises at the Eglin Range for Irregular Warfare limited to four CbtWMD mission areas: offensive operations, interdiction, elimination and active defense. Integrated Training Transformation technologies to facilitate LVC Joint Testing, Training and Exercises – to include those Irregular Warfare and CbtWMD – into the infrastructure and systems located at the Eglin Range and/or that can be connected to Joint Training Experimentation Network (JTEN). Developed the capability to conduct repeatable, realistic LVC Joint Testing, Training and Exercises – to include those for Irregular Warfare and CbtWMD – at the Eglin Range to meet relevant Tactical (TA) and Operational (OP) tasks contained in the Universal Joint Task List (UJTL) dated 1 August 2005. Used Eglin as the test-bed site for developing and demonstrating Weapons of Mass Destruction (WMD) testing and training capabilities, researched common requirements to support testing and training objectives, and demonstrated emerging air training instrumentation support for T&E instrumentation requirements.</p> <p>FY07 PLANS: Continue efforts begun with FY 2006 Congressional increase.</p>				
	FY 06	FY 07	FY 08	FY 09
Masking Shunt (9902)	0.958			
RDT&E Articles Quantity				
<p>FY06 ACCOMPLISHMENTS: Per Congressional action USJFCOM supported Masking Shunt demonstrated the ability for Masking Shunt to add a layer of security to a network Community of Interest (COI) or firewall rendering the protected infrastructure, network, and devices invisible to all external and internal traffic using Joint Advanced Training Technology Laboratory (JATTL) applications as the COI to protect, and demonstrate the security features in shadow experiments along side of existing JATTL events. Demonstrated the ability to monitor, manage, and manipulate both incoming and outgoing data traffic. Demonstrated the potential capability of Masking Shunt to test form factor derivatives for potential offensive in-the-field use.</p>				

Exhibit R-2a, RDTEEN Project Justification