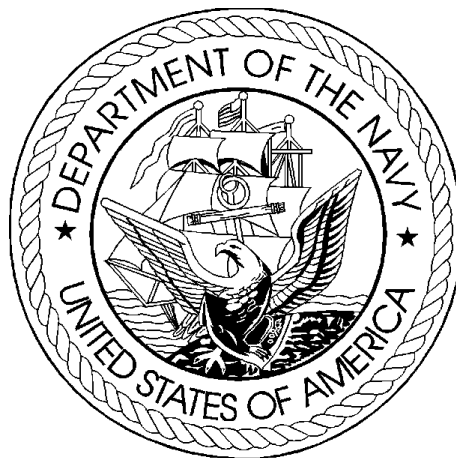


DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2007
BUDGET ESTIMATES SUBMISSION



JUSTIFICATION OF ESTIMATES
FEBRUARY 2006

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

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 DEPARTMENT OF THE NAVY
 FY 2007 RDT&E PROGRAM

SUMMARY
 (\$ IN THOUSANDS)

FEBRUARY 2006

Summary Recap of Budget Activities -----	FY 2005 -----	FY 2006 -----	FY 2007 -----
RDT&E Management Support	997,632	777,822	764,947
Total Research, Development, Test & Eval, Navy	997,632	777,822	764,947
Summary Recap of FYDP Programs -----			
Intelligence and Communications			1,004
Research and Development	995,788	759,673	758,741
Training Medical and Other		18,149	5,202
Administration and Associated Activities	1,844		
Total Research, Development, Test & Eval, Navy	997,632	777,822	764,947

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DEPARTMENT OF THE NAVY
FY 2007 RDT&E PROGRAM

EXHIBIT R-1

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

Date: FEBRUARY 2006

Line No --	Program Element Number -----	Item -----	Act ---	Thousands of Dollars			S E C -
				FY 2005 -----	FY 2006 -----	FY 2007 -----	
141	0604256N	Threat Simulator Development	06	23,437	23,560	23,668	U
142	0604258N	Target Systems Development	06	31,964	40,759	45,666	U
143	0604759N	Major T&E Investment	06	40,265	40,486	39,750	U
144	0605152N	Studies and Analysis Support - Navy	06	11,672	8,855	7,093	U
145	0605154N	Center for Naval Analyses	06	42,336	48,024	48,900	U
146	0605155N	Fleet Tactical Development	06	2,261	2,233	2,595	U
147	0605502N	Small Business Innovative Research	06	305,432			U
148	0605804N	Technical Information Services	06	25,871	28,904	670	U
149	0605853N	Management, Technical & International Support	06	30,080	42,611	47,213	U
150	0605856N	Strategic Technical Support	06	3,380	3,400	3,347	U
151	0605861N	RDT&E Science and Technology Management	06	62,513	62,531	67,328	U
152	0605862N	RDT&E Instrumentation Modernization	06	18,433	1,608	1,243	U
153	0605863N	RDT&E Ship and Aircraft Support	06	86,459	75,974	83,140	U
154	0605864N	Test and Evaluation Support	06	253,260	316,021	328,276	U
155	0605865N	Operational Test and Evaluation Capability	06	12,904	12,908	11,532	U
156	0605866N	Navy Space and Electronic Warfare (SEW) Support	06	2,321	2,788	2,904	U
157	0605867N	SEW Surveillance/Reconnaissance Support	06	12,976	12,827	20,073	U
158	0605873M	Marine Corps Program Wide Support	06	30,224	36,184	25,343	U
159	0305885N	Tactical Cryptologic Activities	06			1,004	U
160	0804758N	Service Support to JFCOM, JNTC	06		18,149	5,202	U

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DEPARTMENT OF THE NAVY
 FY 2007 RDT&E PROGRAM

EXHIBIT R-1

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

Date: FEBRUARY 2006

Line No --	Program Element Number -----	Item ----	Act ---	Thousands of Dollars			S E C -
				FY 2005 -----	FY 2006 -----	FY 2007 -----	
161	0909999N	Financing for Cancelled Account Adjustments	06	1,844			U
		RDT&E Management Support		997,632	777,822	764,947	
		Total Research, Development, Test & Eval, Navy		997,632	777,822	764,947	

**Fiscal Year 2007 Budget Estimates
Budget Appendix Extract Language**

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, \$16,912,223,000, 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. (10 U.S.C. 174, 2352-54, 7522; Department of Defense Appropriations Act, 2006).

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	23,437	23,560	23,668	24,540	25,331	25,885	26,477
0602 ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)	11,129	11,350	11,550	12,036	12,376	12,593	12,872
0672 EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)	12,308	12,210	12,118	12,504	12,955	13,292	13,605

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-Service 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 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 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.

The 0602 Project, Electronic Warfare Environment Simulation, directly supports the T&E resource requirements for all Naval Air EW development programs to include multi-spectral situational awareness and countermeasures.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

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, Directed Infrared Countermeasures, EA-6B Improved Capability Program, 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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2006 President's Budget Submission	23,287	23,918	24,457
Congressional Undistributed Reductions/Rescissions	-17	-358	0
Execution Adjustments	300	0	0
FY 2005 SBIR	-136	0	0
Program Adjustments	3	0	-962
Rate Adjustments	0	0	173
FY 2007 President's Budget Submission	23,437	23,560	23,668

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).

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROJECT NUMBER: 0602

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT TITLE: ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0602 ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)	11,129	11,350	11,550	12,036	12,376	12,593	12,872

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 Electronic Warfare (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 Test and Evaluation resource requirements for all Naval Air Electronic Warfare (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, 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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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 2005	FY 2006	FY 2007
ELECTRO-OPTICAL/INFRA-RED (EO/IR) THREAT CAPABILITIES	2,883	3,914	5,127

Accomplishments/Plans:

FY 2005 - FY 2007: Provide the test community with the modern threat systems necessary for test and evaluation of airborne EO/IR passive alert systems and airborne EO/IR active response systems. Develop spectral, power, and temporal systems to test and evaluate Missile Warning Systems (MWS) and measure the end-game effectiveness of IR expendables and DIRCM systems by simulating high speed IR missile engagements against airborne targets. Develop an IR missile seeker capability similar in concept to the Missile-on-a-Mountain (MOM) facility to measure end-game miss distance and acquire Measure-of-Effectiveness (MOE) data against airborne countermeasures. Develop and integrate an instrumented IR target array for targeting applications. Procure, characterize, instrument, and integrate foreign hardware. Combine the capability of two 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 (SAM's).

	FY 2005	FY 2006	FY 2007
RADIO FREQUENCY (RF) THREAT CAPABILITIES	5,935	5,311	4,242

Accomplishments/Plans:

FY 2005 - FY 2007: Provide the test community with the modern threat systems necessary for test and evaluation of airborne RF alert, Situation Awareness, Targeting systems and airborne RF response systems. Modify the existing Point Mugu Advanced Multiple Emitter Simulators (Micro-AMES) by adding a low band module and a new phase/amplitude chassis. Provide 180 degrees minimum coverage over an extended frequency range to stimulate all receiver channels with simultaneous azimuth and elevation stimulus. Build two Mobile systems to provide a high density RF background environment superimposed over the existing high fidelity threat systems. Upgrade the existing I-23 threat system to provide new high fidelity threat complex waveforms and gray systems. Procure an advanced technology J-Band multiple threat target engagement radar system. The system will simulate six different threats in the lab configuration and a single threat at the range. Instrument and

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0602

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: ELECTRONIC WARFARE ENVIRONMENT SIMULATION (ECHO)

integrate an actual foreign missile seeker into the I-23 weapon system simulation. Upgrade the I-23 tracking algorithms, radar/missile control modes.

	FY 2005	FY 2006	FY 2007
REQUIREMENTS AND VALIDATION	2,311	2,125	2,181

Accomplishments/Plans:

FY 2005 - FY 2007: Validate and track intelligence 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

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

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

Project	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Number	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
& Title							
0672 EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)							
	12,308	12,210	12,118	12,504	12,955	13,292	13,605

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 Force, Special Operations, and other EW Research, Development, Test and Evaluation 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. Builder, an ENEWS digital modeling tool that was developed and is maintained to support surface EW Test and Evaluation (T&E), has migrated outside the T&E arena and is being used by special forces and carrier battle groups as a mission planning tool. 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 (ASCM) systems. The ENEWS Project is unique in that it is the only project within DoD dedicated to developing and providing realistic ASCM 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), Operations Test and Evaluation, 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 test and evaluation of Future Naval Capability process. In

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

addition, ENEWS assets are regularly employed to test the effectiveness of North Atlantic Treaty Organization ships' EW systems in joint allied exercises.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
SIMULATOR HARDWARE UPGRADES	724	69	77

Provides simulator upgrades to ENEWS flyable and shore based IR and Radio Frequency (RF) simulators.

FY 2005 Accomplishments:

- Completed FOXTROT 1 standard instrument pod (SIP) flight certification on NP-3D aircraft.
- Completed AN/ALQ-170 Multi-Threat Simulator Upgrade (MTSU). There was 1 simulation: generic sim 14.

FY 2006 Plans:

- Complete intelligence upgrades to MEIR 3 and SUMMIT.
- Initiate intelligence upgrades to MEIR 3, MIKE 3, SUMMIT, FOXTROT 1 SIP, and VICTOR 1 SIP.

FY 2007 Plans:

- Continue all efforts of FY 2006 less those noted as completed above.

	FY 2005	FY 2006	FY 2007
SIMULATOR SOFTWARE UPGRADES	700	60	68

Provides software upgrades to existing ENEWS flyable and shore based simulations required due to either hardware upgrade of the computer or new intelligence information. FY 2005 - FY 2006 Focus is on upgrades to existing simulators.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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 2005 Accomplishments:

- Completed software upgrades to the MTSU. There were 2 simulations: sims 11 and 17.
- Initiated software upgrades to the FOXTROT 1 SIP. There was 1 simulation: sim 2.

FY 2006 Plans:

- Continue all efforts of FY 2005 less those noted as completed above.
- Initiate intelligence upgrades to MEIR 3 and VICTOR 1 SIP. There will be 2 simulations: visible band and sim 4.

FY 2007 Plans:

- Continue all efforts of FY 2006 less those noted as completed above.

	FY 2005	FY 2006	FY 2007
SIMULATOR CHARACTERIZATION	123	26	29

Provides characterization of IR and RF simulators as part of the periodic checks on simulator performance and to collect performance data to be used in validation reports.

FY 2005 Accomplishments:

- Initiated and completed characterization of INDIA II, NOVEMBER II, III and IV, and there were 75 tests per simulator.
- Initiated and completed characterization of MIKE 2 and 3. There were 4 system level tests per simulator.

FY 2006 Plans:

- Initiate and complete characterization of INDIA I.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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 2007 Plans:

- Initiate and complete characterization of INDIA III.

	FY 2005	FY 2006	FY 2007
SIMULATOR MAINTENANCE	1,000	1,096	1,071

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

FY 2005 Accomplishments:

- Continued annual maintenance on 21 simulators. There were 15 RF and 6 IR simulators to support 15 flight/shore based tests per year.

FY 2006 Plans:

- Continue all efforts of FY 2005.

FY 2007 Plans:

- Continue all efforts of FY 2006.

	FY 2005	FY 2006	FY 2007
SIMULATOR CONTROL PANELS	205	253	244

Supports the development and maintenance of all simulator control panels.

FY 2005 Accomplishments:

- Completed INDIA I simulator control panel. There were 4 assemblies.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

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

- Initiated FOXTROT I SIP and INDIA I simulator control panels with 10 assemblies.
- Initiated INDIA II simulator control panel. There were 4 assemblies.

FY 2006 Plans:

- Continue all efforts of FY 2005 less those noted as completed above.
- Initiate INDIA III 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 2005	FY 2006	FY 2007
LABORATORY FACILITIES	1,000	1,026	1,027

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

FY 2005 Accomplishments:

- Initiated and completed upgrades to MEIR 2, MIKE 2, QUESTION, FOXTROT I and VICTOR I shore based support equipment. There were 5 IR systems.

FY 2006 Plans:

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

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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 2007 Plans:

- Initiate and complete upgrades to shore based test facilities required to conduct test of SEWIP and NULKA Programs.

	FY 2005	FY 2006	FY 2007
SIMULATION THREAT REPOSITORY	10	40	43

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

FY 2005 Accomplishments:

- Initiated the transition of NRL Code 5750 and 5770 environmental, threat, and platform simulations to the Subversion Software Configuration Management Program. Subversion software upgraded as new releases became available. There are 100 updates annually.

FY 2006 Plans:

- Continue all efforts of FY 2005.

FY 2007 Plans:

- Continue all efforts of FY 2006.

	FY 2005	FY 2006	FY 2007
SIMULATION INSTRUMENTATION	233	482	566

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

FY 2005 Accomplishments:

- Continued upgrades and maintenance of flight support systems as necessary to support the IR/RF ENEWS

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

simulators. There are 15 RF & 6 IR simulators.

FY 2006 Plans:

- Continue all efforts of FY 2005.

FY 2007 Plans:

- Continue all efforts of FY 2006.

	FY 2005	FY 2006	FY 2007
SIMULATION VALIDATION	430	677	606

Provides for the validation of hardware and software simulators and digital models. Develops reports that contain detailed descriptions of the threat simulators or digital models and the threat missile seekers.

FY 2005 Accomplishments:

- Initiated and completed the INDIA I digital model validation report. Provided report to the Simulator Validation Working Group (SVWG).
- Initiated work on the INDIA II digital model validation report.
- Initiated work on the MIKE 2, MEIR 2, QUESTION, FOXTROT I SIP, and NOVEMBER II hardware validation reports.

FY 2006 Plans:

- Continue all efforts of FY 2005.
- Complete MIKE 2, MEIR 2, QUESTION and NOVEMBER II hardware validation reports. Provide reports to SVWG.
- Initiate INDIA III digital model validation report.
- Initiate and complete INDIA II and QUEBEC hardware validation reports. There will be 2 reports to SVWG.
- Initiate TANGO and MIKE 3 hardware validation reports.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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 2007 Plans:

- Continue all efforts of FY 2006 less those noted as completed above.
- Complete Mike 3 and FOXTROT I SIP hardware validation report. Provide reports to SVWG.
- Initiate INDIA I and NOVEMBER III and IV hardware validation reports.

	FY 2005	FY 2006	FY 2007
ELECTRONIC ATTACK/ELECTRONIC SUPPORT SIMULATIONS	545	567	571

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 Test and Evaluation digital scenarios.

FY 2005 Accomplishments:

- Initiated 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.

FY 2006 Plans:

- Continue all efforts of FY 2005.

FY 2007 Plans:

- Continue all efforts of FY 2006.

	FY 2005	FY 2006	FY 2007
PROGRAM MANAGEMENT	338	330	416

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-

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

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PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

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

433, Office of Naval Research, and other ENEWS oversight activities. Also, provides technical leadership to the Navy Surface Anti-Ship Cruise Missile Threat SVWG.

FY 2005 Accomplishments:

- Continued management of the SVWG.
- Initiated and completed update of FY 2005 Program Management Plan.
- Initiated and completed FY 2005 quarterly reports, earned value management analysis, and progress trend analysis.

FY 2006 Plans:

- Continue all efforts of FY 2005 less those noted as completed above.
- Initiate and complete update of FY 2006 Program Management Plan.
- Initiate and complete FY 2006 quarterly reports, earned value management analysis, and progress trend analysis.

FY 2007 Plans:

- Continue all efforts of FY 2006 less those noted as completed above.
- Initiate and complete update of FY 2007 Program Management Plan.
- Initiate and complete FY 2007 quarterly reports, earned value management analysis, and progress trend analysis.

	FY 2005	FY 2006	FY 2007
CLASSIFIED PROGRAM	7,000	7,584	7,400

Details about this program are classified.

UNCLASSIFIED

FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROJECT NUMBER: 0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT TITLE: EFFECTIVENESS OF NAVY ELECTRONIC WARFARE SYSEMS (ENEWS)

7549

FY 2005 Accomplishments:

- Details are of a higher classification.

FY 2006 Plans:

- Details are of a higher classification.

FY 2007 Plans:

- Details are of a higher classification.

C. OTHER PROGRAM FUNDING SUMMARY:

- Not applicable

D. ACQUISITION STRATEGY:

- Not applicable

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /						0604258N, TARGET SYSTEMS DEVELOPMENT		
BA 6								
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	31.964	40.759	45.666	42.532	47.149	48.106	49.952	
0609 AERIAL TARGET SYSTEMS DEV	28.096	26.147	30.135	22.891	14.426	12.158	8.281	
0610 WPN SYS T&E TRG DEV/PRC	2.918	10.648	14.315	18.372	30.380	33.759	40.277	
0612 SURFACE TARGETS DEVELOPMENT	.950	2.964	1.216	1.269	2.343	2.189	1.394	
9999 CONGRESSIONAL ADD		1.000						

(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 fleet 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 (AST), surface targets for test and evaluation, surface towed targets, improved target control system, and an anti-radiation missile target. This program element also includes procurement of TA/AS Vector Scoring.

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME	
RDT&E, N /		0604258N, TARGET SYSTEMS DEVELOPMENT					0609, AERIAL TARGET SYSTEMS DEV	
BA 6								
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
0609 AERIAL TARGET SYSTEMS DEV	28.096	26.147	30.135	22.891	14.426	12.158	8.281	
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 unit 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 simulates the anti-ship Cruise Missile threat.
- Supersonic Sea Skimming Target (SSST) development. The current developmental SSST replicates anti-ship cruise missile Threat performance.
- Target Augmentation and Auxiliary Systems (TAAS) development. TAAS items allow each target to be uniquely configured for specific mission profiles. TAAS configured targets are used for radar acquisition te 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.

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
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B. ACCOMPLISHMENTS / PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
Accomplishments / Effort / Sub-total Cost	4.811	5.888	6.045
RDT&E Articles Qty			

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

	FY 2005	FY 2006	FY 2007
Accomplishments / Effort / Sub-total Cost	13.270	6.123	1.747
RDT&E Articles Qty			

Continue Subsonic Subscale Aerial Target (SSAT) Development, including product improvements to the existing SSAT (upgraded engine, swept wing configuration and fuselage upgrades) and evaluation of alternate subsonic subscale Aerial Targets.

	FY 2005	FY 2006	FY 2007
Accomplishments / Effort / Sub-total Cost	10.015	14.136	22.343
RDT&E Articles Qty			

Continue QM-163A Supersonic, Sea-Skimming Target (SSST) Block Upgrades/evolutionary development to keep pace with evolving threat and associated ORD requirements. Efforts include: (1)-Initiate launch study to support operations at Pacific Missile Range Facility (PMRF). (2) Initiate study to develop QM-163A air-launch capability. (3)-Upgrade QM-163A to support integration of ULQ-21. (4) Initiate booster enhancement study. Continue analyzing and validating results of study researching suitable alternatives to develop a Threat-D representative SSST. Finalize efforts evaluating an acquisition approach that lower the risk of developing a cost-effective SSST to meet Threat D representation requirements. Prepare for anticipated FY07 Threat D SSST Milestone B decision and program commencement to support a competitive contract award in early FY07.

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
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C. PROGRAM CHANGE SUMMARY

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	23.439	26.546	30.588
Current BES / President's Budget:	28.096	26.147	30.135
Total Adjustments	4.657	-0.399	-0.453

Summary of Adjustments

Congressional Reductions			
Congressional Rescissions			
Congressional Undistributed Reductions	-0.319	-0.278	
Congressional Increases			
Economic Assumptions		-0.121	
Miscellaneous Adjustments	4.976		-0.453
Subtotal	4.657	-0.399	-0.453

Schedule:
Not Applicable.

Technical:
Not Applicable.

D. OTHER PROGRAM FUNDING SUMMARY:	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
228000 Aerial Target System	69.125	91.539	83.299						
612020 Spares and Repair Parts (WPN B.A. 6)	0.545	5.975	5.506						

E. ACQUISITION STRATEGY:
Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification

DATE: February 2006

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME	
RDT&E, N / BA 6		0604258N, TARGET SYSTEMS DEVELOPMENT					0610, WPN SYS T&E TRG DEV/PRC	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
0610 WPN SYS T&E TRG DEV/PRC	2.918	10.648	14.315	18.372	30.380	33.759	40.277	
RDT&E Articles Qty		2	4	5	6	4	3	

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, change 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.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY RDT&E, N /	BA 6	PROGRAM ELEMENT NUMBER AND NAME 0604258N, TARGET SYSTEMS DEVELOPMENT	PROJECT NUMBER AND NAME 0610, WPN SYS T&E TRG DEV/PRC
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B. ACCOMPLISHMENTS / PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	.100	1.750	2.250	
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 countermeasure (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.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	2.485	7.099	10.644	
RDT&E Articles Qty		2	4	

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. FY07 QF-4 procurements deliver FSATs in FY09 supporting JSF, AIM-9X, AMRAAM and SM-6.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	.333	1.799	1.421	
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.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT NUMBER AND NAME

PROJECT NUMBER AND NAME

RDT&E, N /

BA 6

0604258N, TARGET SYSTEMS DEVELOPMENT

0610, WPN SYS T&E TRG DEV/PRC

C. PROGRAM CHANGE SUMMARY

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	10.934	23.408	14.713
Current BES / President's Budget:	2.918	10.648	14.315
Total Adjustments	-8.016	-12.760	-0.398

Summary of Adjustments

Congressional Reductions		-12.408	
Congressional Rescissions			
Congressional Undistributed Reductions	-0.263	-0.245	
Congressional Increases			
Economic Assumptions		-0.107	
Miscellaneous Adjustments	-7.753		-0.398
Subtotal	-8.016	-12.760	-0.398

Schedule:

Not Applicable.

Technical:

Not Applicable.

D. OTHER PROGRAM FUNDING SUMMARY:

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
228000 Aerial Target System (WPN)	69.125	91.539	83.299						
612020 Spares and Repair Parts (WPN B.A. 6)	0.545	5.975	5.506						

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
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 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	0.950	2.964	1.216	1.269	2.343	2.189	1.394	
RDT&E Articles Qty	1	1	1	1	1	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 2006

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 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	0.200	0.231	0.249	
RDT&E Articles Quantity				

- Continued requirements Study/Analysis of target requirements in response to weapons systems development and upgrades.
- Continued development of real-time surface target scoring systems, including move to vector scorer.
- Continued command and control upgrade development.
- Continued Weapons System/Emitter, Target Augmentation System (TAS) upgrade.
- Continued Target/Threat Characterization and Validation.

	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	0.750	2.733	0.967	
RDT&E Articles Quantity	1	1	1	

- Procured prototype 50 foot - 50 knot Fast Attack Craft Target (FACT) for testing and evaluation of concept validation.
- Complete evaluation and finalize configuration for FACT production.
- Finalize reports and prepare procurement recommendations to sponsors.
- Procured QST-35i, a 60 foot candidate replacement for QST-35A.
- Evaluate suitability of QST-35i and develop procurement package for follow-on production.
- Update design package for medium (40M) Coastal Patrol Craft threat in FY05.
- Procure prototype Medium (40M) missile-capable, patrol craft threat to address known threat design in FY06. Integrate of on-board control system in FY07 upon receipt of vessel.
- Conduct testing of small, high-speed, missile capable patrol craft threat.
- Complete high-speed (>45 knots) tow platform to be utilized in conjunction with small high-speed patrol craft threat to enhance platform survivability.

CLASSIFICATION:									
EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006							
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME							
RDT&E, N / BA-6	0604258N, Target Systems Development	0612, Surface Targets Development							
C. PROGRAM CHANGE SUMMARY:									
Funding:	FY2005	FY 2006	FY2007						
Previous President's Budget: (FY06 Pres Controls)	0.952	3.009	1.215						
Current BES/President's Budget: (FY07 Pres Controls)	0.950	2.964	1.216						
Total Adjustments	-0.002	-0.045	0.001						
Summary of Adjustments									
Congressional Reductions									
Congressional Rescissions									
Congressional Undistributed Reductions		-0.031							
Congressional Increases									
Economic Assumptions		-0.014							
Miscellaneous Adjustments	-0.002		0.001						
Subtotal	-0.002	-0.045	0.001						
Schedule:									
Not applicable									
Technical:									
Not applicable									
D. OTHER PROGRAM FUNDING SUMMARY:									
	<u>FY 2005</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>To Complete</u>	<u>Total Cost</u>
OPN Line 545500 ASW Range Spt Equipment	7.126	7.136	7.188						
E. ACQUISITION STRATEGY:									
Not applicable									

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
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 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost		1.000						
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Congressional Add.</p>								

R-1 SHOPPING LIST - Item No.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N, Target Systems Development	PROJECT NUMBER AND NAME 9999, Congressional Add	
B. Accomplishments/Planned Program			
	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost		1.000	
RDT&E Articles Quantity			
<div style="border: 1px solid black; min-height: 100px; margin-top: 5px;"> <p>-Air Coyote supersonic sea skimming target development</p> </div>			

CLASSIFICATION:									
EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006							
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME							
RDT&E, N / BA-6	0604258N, Target Systems Development	9999, Congressional Add							
C. PROGRAM CHANGE SUMMARY:									
Funding:	FY2005	FY 2006	FY2007						
Previous President's Budget:		1.000							
Current BES/President's Budget:		1.000							
Total Adjustments	0.000	1.000	0.000						
Summary of Adjustments									
	Congressional Reductions								
	Congressional Rescissions								
	Congressional Undistributed Reductions								
		1.000							
	Congressional Increases								
	Economic Assumptions								
	Miscellaneous Adjustments								
Subtotal	0.000	1.000	0.000						
Schedule:									
Not applicable									
Technical:									
Not applicable									
D. OTHER PROGRAM FUNDING SUMMARY:									
	<u>FY 2005</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>To Complete</u>	<u>Total Cost</u>
WPN 228000 Aerial Targets	69.125	91.539	83.299						
612020 Spares and Repair Parts (WPN B.A. 6)	0.545	5.975	5.506						
E. ACQUISITION STRATEGY:									
Not applicable									

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2006
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APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6	R-1 ITEM NOMENCLATURE 0604759N, MAJOR T&E INVESTMENT
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COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	40.265	40.486	39.750	41.938	44.053	44.798	45.787
2195 T&E Investment	38.248	39.086	39.750	41.938	44.053	44.798	45.787
9605 Adapting Fleet Support and Readiness Training	2.017						
9999 Congressional Adds		1.400					

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 AUTEC), Andros Island, Bahamas; 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.

R-1 SHOPPING LIST - Item No. 143

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
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 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		38.248	39.086	39.750	41.938	44.053	44.798	45.787
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 AUTEC), Andros Island, Bahamas; 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.

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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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
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B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007	
Accomplishments/Effort/Subtotal Cost	6.864	5.902	4.050	
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. Projects include the installation and integration of improved minefield shapes at the Berry Island shallow water range, the development and integration of an improved underwater range data communications system, the development of new range control center software and modernized hardware, the installation of improved lightning protection and grounding systems at the AUTECH main sites and downrange sites one and two, the replacement and extension of the AUTECH range classified and unclassified local area networks; the installation and integration a hydrophone string to regain 90 square nautical miles of the AUTECH deep water range; the modernization of the deep water hydrophone acoustic signal processors; and the modernization of communication links from AUTECH's main site to its downrange sites one and two.

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CLASSIFICATION:

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

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007	
Accomplishments/Effort/Subtotal Cost	22.419	25.481	28.978	
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, Land Range, Electronic Combat Range, Air Vehicle Modification and Instrumentation and Atlantic Test Range (ATR)).

Sea Range - The modernization of frequency monitoring capabilities; the modernization of the fifth tracking radar; the development and integration of target launch, airborne telemetry, optics, flight termination capabilities for the range support aircraft; the upgrade of video capabilities (from analog to digital); 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 hardware/software; the addition of enhanced (digital) flight termination system; the modernization of the telemetry antenna systems; the modernization of the target control system; the modernization of the post flight analysis system and the procurement and integration of the next generation Global Positional System (GPS) tracking system Enhanced Range Application Program (EnRAP).

Land Range - The modernization of frequency monitoring capabilities; the upgrade of video capabilities (from analog to digital); the modernization of communication infrastructure; the replacement of VHF and UHF radio transmitters; the modernization of the mobile radio communications system; the modernization of range timing and sensor interface hardware/software; the addition of enhanced (digital) 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, and the procurement and integration of the next generation GPS tracking system (EnRAP).

Electronic Combat Range -The modernization of frequency monitoring and threat calibration capabilities; the procurement and integration of a classified and unclassified voice system; 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, and the procurement and integration of the next generation GPS tracking system (EnRAP).

Air Vehicle Modification and Instrumentation - The modernization of six telemetry test carts; the procurement of solid state recorders; the modernization of test measurement sensors.

Atlantic Test Range - The modernization of communication links and integration of range safety data between ATR and Webster Field (FY05 Cong. Add - Upgrade and Enhance Instrumentation); the upgrade of video capabilities (from analog to digital); the modernization of the radar cross section emitters pedestals; the upgrade of the classified and unclassified local area network; the modernization and addition of telemetry antennas; the replacement of VHF and UHF radio transmitters; the upgrade of the Infra-Red signature measurement software and hardware; and the procurement and integration of the next generation GPS tracking system (EnRAP).

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:	February 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-6	0604759N, MAJOR T&E INVESTMENT	2195, T&E Investment		
B. ACCOMPLISHMENTS/PLANNED PROGRAM:				
	FY 2005	FY 2006	FY 2007	
Accomplishments/Effort/Subtotal Cost	8.965	7.703	6.722	
RDT&E Articles Qty				
<p>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), Propulsional Systems Evaluation Facility (PSEF), Ordnance T&E Facility).</p> <p>ACETEF - The development and integration of an advanced radar environment stimulator; the procurement and integration of communication and security equipment required to support the classified and unclassified operations within the Advanced Systems Integration Laboratory (ASIL) MILCON; the procurement of fiber channel bus monitoring and stimulation capability; the modernization of threat simulation transmitters; the modernization of the GPS simulator.</p> <p>E3 - The modernization of the tempest certification systems; and the moderization of E3 laboratory test equipment.</p> <p>PSEF - The development and integration of a High Cycle Fatigue (HCF) Test Capability; the upgrade the Helicopter Transmission Test Facility (HTTF) to support greater horsepower/torque and provide quicker setup time.</p> <p>Ordnance T&E - The modernization of the tactical propulsion data acquisition and video systems.</p>				

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2006
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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
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C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2005	FY 2006	FY 2007	
Previous President's Budget:	40.518	39.682	39.836	
Current BES/President's Budget	38.248	39.086	39.750	
Total Adjustments	<u>-2.270</u>	<u>-0.596</u>	<u>-0.086</u>	
Summary of Adjustments				
Congressional Undistributed Reductions	-0.060	-0.415		
Economic Assumption		-0.181	0.487	
Program Adjustments			-0.573	
Execution Adjustments	<u>-2.210</u>			
Subtotal	<u>-2.270</u>	<u>-0.596</u>	<u>-0.086</u>	

D. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

<u>Line Item No. & Name</u>	<u>FY 2005</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>To Complete</u>	<u>Total Cost</u>
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E. ACQUISITION STRATEGY: Not Applicable.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT			PROJECT NUMBER AND NAME 9605, Adapting Fleet Support and Readiness Training			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	2.017							
RDT&E Articles Qty	Not Applicable							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project augments and improves existing Test and Evaluation instrumentation located at Naval Air Warfare Center Aircraft Division, Patuxent River, MD in order to better support fleet training requirements. Project will upgrade capabilities at the air ops, ship's ground station, and atlantic test range facilities.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT	PROJECT NUMBER AND NAME 9605, Adapting Fleet Support and Readiness Training		
B. ACCOMPLISHMENTS/PLANNED PROGRAM:				
	FY 2005	FY 2006	FY 2007	
Accomplishments/Effort/Subtotal Cost	2.017			
RDT&E Articles Qty				
<p>Project will acquire and integrate a manpad simulator, blue force target replicas, portable emitter control, communication links and airspace management improvements.</p>				

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2006
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT	PROJECT NUMBER AND NAME 9605, Adapting Fleet Support and Readiness Training
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C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	2.055		
Current BES/President's Budget	2.017		
Total Adjustments	<hr/>		
	-0.038		
Summary of Adjustments			
Congressional Undistributed Reductions	-0.049		
Execution Adjustments	0.011		
Subtotal	<hr/>		
	-0.038		

D. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

<u>Line Item No. & Name</u>	<u>FY 2005</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>	To Complete	Total Cost
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E. ACQUISITION STRATEGY: Not Applicable.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT			PROJECT NUMBER AND NAME 9999, Congressional Adds			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost		1.400						
RDT&E Articles Qty	Not Applicable							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Congressional Adds.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT	PROJECT NUMBER AND NAME 9999, Congressional Adds

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
9776, Integrating Navy RDT&E and Training Resources			
Accomplishments/Effort/Subtotal Cost		1.400	
RDT&E Articles Qty			

Integrating Navy RDT&E and Training resources to accelerate transformation of the fleet.

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2006
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604759N, MAJOR T&E INVESTMENT	PROJECT NUMBER AND NAME 9999, Congressional Adds
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C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2005	FY 2006	FY 2007	
Previous President's Budget:		0.000		
Current BES/President's Budget		1.400		
Total Adjustments		1.400		
Summary of Adjustments				
Congressional Increases		1.400		
Subtotal		1.400		

D. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.

<u>Line Item No. & Name</u>	<u>FY 2005</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>To Complete</u>	<u>Total Cost</u>
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E. ACQUISITION STRATEGY: Not Applicable.

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					R-1 ITEM NOMENCLATURE		
RDT&E, N / BA-6	0605152N, STUDIES AND ANALYSIS SUPPORT - NAVY					2092, NAVAL WARFARE STUDIES		
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	11.672	8.855	7.093	7.693	8.277	8.837	9.371	
0133/NATL ACAD SCI/STUD BRD	1.826	1.886	1.792	1.902	1.897	1.994	1.988	
2092 NAVAL WARFARE STUDIES	9.562	3.878	5.021	5.505	6.089	6.546	7.079	
2097 MANPOWER PERSONNEL & TRAINING	.284	.291	.280	.286	.291	.297	.304	
9999 CONGRESSIONAL ADD		2.800						

(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.

UNCLASSIFIED

CLASSIFICATION:								
EXHIBIT R-2a, RDT&E Project Justification							DATE: Feb 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605152N/Studies and Analysis Support, Navy			PROJECT NUMBER AND NAME 0133/National Academy of Sciences/Naval Studies Board		
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	1.826	1.886	1.792	1.902	1.897	1.994	1.988	
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>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.</p> <p>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.</p>								

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: Feb 2006
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605152N/Studies and Analysis Support, Navy	PROJECT NUMBER AND NAME 0133/National Academy of Sciences/Naval Studies Board
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B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.826	1.886	1.792

FY 2005 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 National Space Forum and the Weinblum Memorial Lecture Series.
- Initiated two new studies as approved by the CNO: The Role of Naval Forces in the Global War on Terrorism and Distributed Remote Sensing for Naval Undersea Warfare.

FY 2006 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 National Space Forum and the Weinblum Memorial Lecture Series.
- Initiate new studies (1-3) to be selected by the CNO during FY06.

FY 2007 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 National Space Forum and the Weinblum Memorial Lecture Series.
- Initiate new studies (1-3) to be selected by the CNO during FY07.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		Feb 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-6	0605152N/Studies and Analysis Support, Navy	0133/National Academy of Sciences/Naval Studies Board
C. PROGRAM CHANGE SUMMARY:		
Funding:		
FY 2006 President's Budget Submission	FY 2005	FY 2006
FY 2007 President's Budget Submission	1.873	1.913
Total Adjustments	1.826	1.792
	-0.047	-0.119
Summary of Adjustments		
Congressional Undistributed	-0.001	-0.027
Functional Realignment for OPNAV Program Support Costs		-0.033
FY 2005 SBIR	-0.046	
Program Adjustments		-0.112
Rate Adjustments		0.026
Subtotal	-0.047	-0.119
Schedule:		
Not applicable.		
Technical:		
Not applicable.		

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: Feb 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605152N/Studies and Analysis Support, Navy	PROJECT NUMBER AND NAME 0133/National Academy of Sciences/Naval Studies 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>		

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605152N, STUDIES AND ANALYSIS SUPPORT - NAVY					PROJECT NUMBER AND NAME 2092, NAVAL WARFARE STUDIES	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
2092 NAVAL WARFARE STUDIES	9.562	3.878	5.021	5.505	6.089	6.546	7.079	
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:

	FY 2005	FY 2006	FY 2007
Accomplishments / Effort / Sub-total Cost	9.562	3.878	5.021
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. PROGRAM CHANGE SUMMARY

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	3.999	7.421	0.504
Current BES / President's Budget:	9.562	3.878	5.021
Total Adjustments	5.563	-3.543	4.517

Summary of Adjustments

Congressional Reductions		-3.421	
Congressional Undistributed Reductions		-0.088	
Congressional Increases	0.001		
Economic Assumptions		-0.034	0.061
Program Adjustments	5.562		4.456
Subtotal	5.563	-3.543	4.517

D. OTHER PROGRAM FUNDING SUMMARY:

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
Not applicable									

E. ACQUISITION STRATEGY

Not applicable

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CLASSIFICATION: UNCLASSIFIED								
EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
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 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	0.284	0.291	0.280	0.286	0.291	0.297	0.304	
RDT&E Articles Qty								
<p>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.</p> <p>(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.</p>								

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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
<p>B. (U) FY 2005 Accomplishments:</p> <ul style="list-style-type: none"> •*(U) \$37.8K) Human-Computer Interface Design and Evaluation Guide. The product, resulting from this effort, a Handbook for Human-Computer Interface Design and Usability Testing is intended for use during early and midcourse design and testing phases of a new computer-based system or for use during a major system upgrade. • (U) (\$65K) Permanent Change of Station (PCS) Input Variables. PCS Discretionary (operational, rotational, training) moves are forecasted using two models, OBAY and Tree Classification. Pers-4 and N10 respectively are the users of these models. Additionally, detailers may generate a different move requirement based on detailing policies. There is a need to have these models validated and verified against the purpose for which they were developed and accredited for requirement that cover the FMB process. • (U) (\$37K) Women Classification. The major objective of the proposed study is to determine if meaningful personality metrics can be identified that are related to officer retention of females serving in the surface warfare community. • (U) (\$38.1K) Separation Pay Options. This research will analyze the efficiency of various options for voluntarily separating members from the Navy. FY04 research described the historical experience with VSI/SSB/TERA, involuntary separation pay, and other past programs. It also developed a simulation model to analyze the expected outcomes of alternative separation pay options, including alternative auction formats and annuities versus lump sum payments. • (U) (\$20K) DoN/DoD PCS Policy Analysis. DOD Instruction 1315.7, lays out an algorithm for move sequences, and is very specific that Services shall not adopt policy requiring PCS moves in the CONUS solely based on the passage of a stipulated time period. Anecdotal evidence and preliminary analysis seem to suggest that some policies and business processes currently practiced in the Navy lend themselves to this prohibited PCS practice. Available data suggests that the current Navy PCS move churn is higher than it would be if the Navy applied the move algorithms identified in DOD Instruction 1315.7. If so, this also means there are inefficiencies in operational and personal stability, as well as in total move counts. • (U) (\$86.1K) Reserve Bonus Variable and Tool Support: Developed elasticities for LDHD ratings of the Navy Reserve and provided as input in the development of a Reserve Bonus Decision Support Tool <p>(U) FY 2006 PLAN:</p> <ul style="list-style-type: none"> • (U) (\$36K) Conduct a cost-benefit analysis of Recruiter Refresher Training to justify training expenditures. • (U) (\$80K) Develop an Automated Tracking System (database) of NJROTC Programs Participants. • (U) (\$125K) Assess manpower/personnel growth of Acquisition Category (ACAT) III and ACAT IV Programs. • (U) (\$50K) Assess the potential use and determine appropriate areas to employ Smart Card Technology. <p>(U) FY 2007 PLAN:</p> <ul style="list-style-type: none"> • (U) (\$74K) Assess the Total Officer Force Composition. • (U) (\$74K) Analyze Nuclear Field Enlisted Retention and Compensation. • (U) (\$57K) Assess alternative approaches for development of a new/updated Navy Manpower Requirements System. • (U) (\$75K) Assess Return on Investment (ROI) for select Officer Programs. 		

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2006		
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			
C. PROGRAM CHANGE SUMMARY:					
Funding:	FY 2005	FY 2006	FY 2007		
FY 2006 President's Budget	0.288	0.295	0.297		
FY 2007 President's Budget	0.284	0.291	0.280		
Total Adjustments	-0.004	-0.004	-0.017		
Summary of Adjustments:					
Small Business Innovation Research (SBIR)	-0.004				
Sec 8125:Revised Economic Assumptions		-0.001			
Congressional Reduction		-0.003			
Rate adjustment			0.001		
Program Adjustment			-0.018		
	-0.004	-0.004	-0.017		
Schedule: Not Applicable					
Technical: Not Applicable					

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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
<p>D. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Not Applicable</p> <p>E. ACQUISITION STRATEGY:</p> <p>Not applicable.</p>		

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA6	PROGRAM ELEMENT NUMBER AND NAME 0605152N, STUDIES AND ANALYSIS SUPPORT, NAVY	PROJECT NUMBER AND NAME 9999 Congressional Add

9784	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost		2.800	
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.

R-1 SHOPPING LIST - Item No. 144

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	42,336	48,024	48,900	50,056	51,057	52,144	53,264
0031 MARINE CORPS OPERATIONS AND ANALYSIS GROUP (MCOAG)	3,877	6,746	7,633	7,796	7,866	7,991	8,079
0148 CENTER FOR NAVAL ANALYSES, NAVY	38,459	41,278	41,267	42,260	43,191	44,153	45,185

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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2006 President's Budget Submission	42,280	49,891	51,524
Congressional Undistributed Reductions/Rescissions	-33	-1,867	0
Execution Adjustments	80	0	0
Functional Realignment for OPNAV Program Support Costs	0	0	-718
Program Adjustments	9	0	-2,543
Rate Adjustments	0	0	637
FY 2007 President's Budget Submission	42,336	48,024	48,900

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:

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

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

recommendations into a quarterly newsletter and an annual plan for research and analysis. Other evaluation processes are as follows:

- 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 N00014-00-D-0700. 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) Annual Two- and Three-Star Board of Directors (BoD) 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 Two- and Three-Star BoD members 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).

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Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605154N
PROJECT NUMBER: 0031

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES
PROJECT TITLE: MARINE CORPS OPERATIONS AND ANALYSIS GROUP (MCOAG)

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0031 MARINE CORPS OPERATIONS AND ANALYSIS GROUP (MCOAG)	3,877	6,746	7,633	7,796	7,866	7,991	8,079

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the Marine Corps portion of the DoN CNA Research Program. It 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 number of field representatives for the Operational Forces Commanders and five specific areas of expertise for CNA to establish and maintain. The areas of expertise are linked to the Marine Corps Advocacy (proponency), which are the (1) Command Element, (2) Operations, (3) Aviation, (4) Integration and Logistics, and (5) Manpower. Scientific analyst support provides five scientific analysts, one for each of the five focus areas. The program continues analytical support for field exercises, ad hoc, and quick response requirements.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
MARINE CORPS OPERATIONS AND ANALYSIS GROUP	3,877	6,746	7,633

FY 2005 Accomplishments:

- Provided formal study and analysis support to the operating forces and headquarters elements included in the annual Marine Corps Studies System Master Plan (MCSSMP).
- Continued the following efforts from the FY04 MCSSMP: Armed Forces Vocational Aptitude Battery (ASVAB) Validation and Marine Corps Prepositioning in 2025 studies.
- Initiated the following efforts from the FY05 MCSSMP: USMC in Global War on Terrorism (GWOT)/Distributed Operations, Review of Officer Manpower System, Medical & Dental Manpower Requirements, Military-Civilian Billet Conversion/Appropriate Ratio, Reserve Retention/Attrition Analysis, Implications of Fleet Response

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DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROJECT NUMBER: 0031

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT TITLE: MARINE CORPS OPERATIONS AND ANALYSIS GROUP (MCOAG)

Program.

- Provided five 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; and DCMC Programs and Resources.
- 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 include: general concept development, quick response studies, CNA self-initiated analysis efforts, administrative support, liaison, travel, and contract award fee.

FY 2006 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 FY06 MCSSMP: Positioning Armored Equipment aboard Maritime Prepositioning Ships (MPS) and in geo-prepositioning sites, Marine Air Ground Task Force (MAGTF) Logistics Command and Control - Gap Analysis of Blue/Green Integrated Command and Control (C2), Adapting Roles for Future Marine Expeditionary Units (MEU), Counter Insurgency/Global War on Terrorism (GWOT) Training Gaps and Adjusting Training in Light of the Global War on Terrorism, Effect of Operational Tempo on Reserve Retention, Force Service Support Groups (FSSG) Standardization and Analysis, Manpower Policy in Support of Distributed Operations (DO), Marine Corps Posture for Homeland Defense and Marine Forces North (MFN) Roles and Missions), Military/Civilian Conversions Study, USMC Manpower Performance Indicators, and the USMC Prepositioning in 2025 and Maritime Prepositioning Force (MPF) Attainment and Norwegian Support for Surge Maintenance) Studies.
- Continue and complete the following efforts from the FY05 MCSSMP: USMC in Global War on Terrorism (GWOT)/Distributed Operations, Review of Officer Manpower System, Medical & Dental Manpower Requirements, Military-Civilian Billet Conversion/Appropriate Ratio, Reserve Retention/Attrition Analysis, Implications of Fleet Response Program and Marine Corps Prepositioning in 2025 studies.
- Provide six scientific analysts for direct analytical support to Marine Corps Headquarters staff elements: DCMC Plans, Policies, and Operations; DCMC Installations and Logistics; DCMC Manpower and Reserve Affairs; DCMC Aviation; DCMC Programs and Resources, and Commanding General, Marine Corps Combat Development Command.
- Provide six Field Representatives for direct analytical support to the Commander Marine Forces Pacific

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DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROJECT NUMBER: 0031

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT TITLE: MARINE CORPS OPERATIONS AND ANALYSIS GROUP (MCOAG)

(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).

- Provide analysis support to operating forces exercises, ad hoc support for immediate analytical requirements, and other support functions which include: 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 high priority study and analysis projects approved in FY07 MCSSMP.
- Provide six scientific analysts for direct analytical support to Marine Corps Headquarters staff elements: DCMC Plans, Policies, and Operations; DCMC Installations and Logistics; DCMC Manpower and Reserve Affairs; DCMC Aviation; DCMC Programs and Resources and CG, Marine Corps Combat Development Command.
- Provide 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).
- Provide analysis support to operating forces exercises, ad hoc support for immediate analytical requirements, and other support functions which include: general concept development, quick response studies, CNA self-initiated analysis efforts, administrative support, liaison, travel, and contract award fee.

C. OTHER PROGRAM FUNDING SUMMARY:

NAVY RELATED RDT&E:

PE 0605873M (Marine Corps Program Wide Support)

D. ACQUISITION STRATEGY:

Not applicable.

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DATE: Feb 2006

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 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0148 CENTER FOR NAVAL ANALYSES, NAVY	38,459	41,278	41,267	42,260	43,191	44,153	45,185

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 2005	FY 2006	FY 2007
CENTER FOR NAVAL ANALYSES, NAVY	38,459	41,278	41,267

FY 2005 Accomplishments:

- Continued to address issues of major importance to Navy leadership in the above research areas. CNA's Research Program was 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, continued to comprise approximately 20% of the funding.
- During the reporting period, CNA undertook many essential taskings of the highest priority to the nation. CNA provided analytic support to Operation Iraqi Freedom (OIF), Hurricane Katrina relief analyses, tsunami relief efforts, Sea Strike, Sea Shield, Sea Basing, FORCENet, Force Structure, and rapid-response analyses. CNA provides analysis that is non-partisan, focused, and free of conflict of interest.

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DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605154N
PROJECT NUMBER: 0148

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES
PROJECT TITLE: CENTER FOR NAVAL ANALYSES, NAVY

FY 2006 Plans:

- Continue 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 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.

C. OTHER PROGRAM FUNDING SUMMARY:

NAVY RELATED RDT&E:
PE 0605152N (Studies and Analysis Support-Navy)

D. ACQUISITION STRATEGY:

Not applicable.

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DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	2,261	2,233	2,595	2,689	2,747	2,813	2,887
0151 INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION	2,261	2,233	2,595	2,689	2,747	2,813	2,887

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 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, 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.

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DATE: Feb 2006

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

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2006 President's Budget Submission	2,290	2,266	2,740
Congressional Undistributed Reductions/Rescissions	-2	-33	0
Functional Realignment for OPNAV Program Support Costs	0	0	-41
FY 2005 SBIR	-28	0	0
Program Adjustments	1	0	-137
Rate Adjustments	0	0	33
FY 2007 President's Budget Submission	2,261	2,233	2,595

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:

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

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DATE: Feb 2006

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

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.

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DATE: Feb 2006

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 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0151 INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION	2,261	2,233	2,595	2,689	2,747	2,813	2,887

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project develops and updates TTPs for new and existing weapons systems that directly improve the fleet 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 2005	FY 2006	FY 2007
CHANGING THREAT SCENARIOS TO IMPROVE AND MEASURE FORCE READINESS	307	687	430

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 2005 Accomplishments:

- Developed TTP for Account For Variance in Contact Localization Accuracy.
- Developed TTP for Maritime Tactical Development for Armed Unmanned Combat Vehicle's (UCV).

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DATE: Feb 2006

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 2006 Plans:

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

FY 2007 Plans:

- Develop TTP for defense against Small Boat Attacks using Armed Unmanned Surface Vehicles (USV).
- Develop TTP to defend Navy Shore establishments against terrorist attacks.
- Develop TTP to defend Naval Port facilities against terrorist attacks.
- Develop TTP to defend Naval Vessels against attack when visiting foreign ports.
- Establish TTP for Multi-Amphibious Assault Ship (LHA/LHD) Tactics for Marine Expeditionary Force (MEF).
- Establish TTP for Helicopter Intercept of Low Slow Flyer.

	FY 2005	FY 2006	FY 2007
NEWLY EVOLVING FORCE STRUCTURES	787	685	1,024

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 2005 Accomplishments:

- Developed TTP for Long Range Acoustic Devices (LADS).
- Developed TTP for Operational Tactics for the Command/Control Radar Aircraft (E-2C) for an Expeditionary Environment.
- Developed TTP for Tactical Employment of a Wireless Local Area Network (LAN) for Maritime Interdiction Ops (MIO).
- Developed TTP for Red Force Counter Exploitation.
- Developed TTP for Non-Kinetic Fires and Targeting.
- Developed TTP for Diesel Submarine (SSK) Tactical Guidance.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
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DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: 0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT AND EVALUATION

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION

- Developed TTP for Counter Intelligence, Surveillance, Reconnaissance and Targeting (ISRT) Tactics in the littoral.
- Developed TTP for Attack Criteria Utilizing Torpedo Decision Tree.

FY 2006 Plans:

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

FY 2007 Plans:

- Develop TTP to Optimize Tactical Advantage in the littoral through Counter-Surveillance.
- Develop TTP for Coastal Mine Hunter (MHC)/MCM Survivability Data.
- Develop TTP for SH-60/S-3B Coordinated Covert "QUICK STRIKE" Against Diesel Submarines.
- Develop TTP for Jamming Coordination and Control of Comms Within the Amphibious Assault Area.
- Develop TTP for LONG-RANGE Advance Capability (ADCAP) Employment.
- Develop TTP for Harpoon Missile Exercise Safety Study.
- Develop TTP for Maritime Information Operations/Information Warfare (IO/IW) Support to Homeland Security.

	FY 2005	FY 2006	FY 2007
NEW AND EXISTING WEAPON SYSTEMS EMPLOYMENT	1,167	861	1,141

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 2005 Accomplishments:

- Developed TTP for S-3 Minus Airwing.
- Developed TTP for Multi-Functional Information Distribution System (MIDS) in a Joint Air-to-Ground Arena.
- Developed TTP for JDAM Target of Opportunity (TOO) Tactics.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: 0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT AND EVALUATION

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT AND EVALUATION

- Developed TTP for Tactical Tomahawk/Third Party Targeting.
- Developed TTP for Multi-Platform Coordinated Anti-Surface Warfare Tactics.
- Developed TTP for Helicopter-Based Electro-Optical Recognition System.

FY 2006 Plans:

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

FY 2007 Plans:

- Develop TTP for attacking Time Critical Targets using emergent target mensuration systems.
- Develop TTP to define effectiveness of EA-6B Jamming on Anti-Ship Missiles and proper employment of such systems.
- Develop TTP for employment of Coastal (MHC) Dyad Influence Mine Sweeping System.
- Develop TTP for employment of the P-3 in a naval surface fires supporting role.
- Develop TTP for employment of E-2C in an overland surface detection and tracking role.
- Establish TTP for Torpedo Selection and Employment in a specified geographic area to support the current Operations Plan.
- Establish TTP for MCM Reconnaissance Tactics.
- Establish TTP for preemptive launch of IR decoys in a hostile landing zone.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

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Exhibit R-2

DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	305,432	0	0	0	0	0	0
1812 NAVAIR SBIR PROGRAM	108,301	0	0	0	0	0	0
1813 SPAWAR SBIR PROGRAM	15,214	0	0	0	0	0	0
1814 NAVSEA SBIR PROGRAM	59,282	0	0	0	0	0	0
1824 CMC SBIR PROGRAM	12,151	0	0	0	0	0	0
1862 SSPO SBIR PROGRAM	1,686	0	0	0	0	0	0
1863 NAVSUP SBIR PROGRAM	681	0	0	0	0	0	0
1864 CNR SBIR PROGRAM	53,746	0	0	0	0	0	0
1865 SBIR ADMINISTRATION	3,438	0	0	0	0	0	0
2016 NAVFAC SBIR PROGRAM	500	0	0	0	0	0	0
2204 SMALL BUSINESS TECH TRANSFER PROGRAM	30,838	0	0	0	0	0	0
2240 NAVY DUAL USE TECHNOLOGY PROGRAM	751	0	0	0	0	0	0

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DATE: Feb 2006

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

2241 NATCMS								
	995	0	0	0	0	0	0	0
2242 JASSM								
	5,174	0	0	0	0	0	0	0
2243 NAVAIR - SBIR ADMIN								
	6,987	0	0	0	0	0	0	0
2244 NAVFAC - SBIR ADMIN								
	50	0	0	0	0	0	0	0
2245 NAVSUP - SBIR ADMIN								
	60	0	0	0	0	0	0	0
2248 ADV LIGHTWEIGHT GROUND WEAPONRY								
	110	0	0	0	0	0	0	0
2813 NSMA - SBIR								
	5,000	0	0	0	0	0	0	0
2814 NSMA - SBIR ADMIN								
	468	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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2005 SBIR	305,436	0	0
Execution Adjustments	-4	0	0
FY 2007 President's Budget Submission	305,432	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:

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
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DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	25,871	28,904	670	703	723	743	759
0835 TECH INFO SVCS							
665		704	670	703	723	743	759
2296 FEDERAL LAB CONSORTIUM							
416	416	0	0	0	0	0	0
9999 CONGRESSIONAL PLUS-UPS							
24,790	24,790	28,200	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 and reduce 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 to concepts and technologies, and access to business practices of the civil sector.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2006 President's Budget Submission	26,144	714	685
Congressional Action	0	28,200	0
Congressional Undistributed Reductions/Rescissions	-20	-10	0
Execution Adjustments	-20	0	0
Federal Technology Transfer	416	0	0
FY 2005 SBIR	-655	0	0
Program Adjustments	6	0	-20
Rate Adjustments	0	0	5
FY 2007 President's Budget Submission	25,871	28,904	670

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

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0835 TECH INFO SVCS	665	704	670	703	723	743	759

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The goal for this project, to enhance warfighter effectiveness, is met through: Navy leverage of the industry independent R&D science and technology base; information exchange on Navy R&D requirements and advanced acquisition information through the Navy Acquisition R&D Information Center (NARDIC); the Navy Potential Contractor Program (NPCP); 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 2005	FY 2006	FY 2007
LEVERAGE OF INDUSTRY R&D	440	582	0

This activity area supports the Technology Transfer Transition Program initiated in FY 2005. FY 2006 reflects an increase due to realignment of funding from the completed "Commercialization of Navy-Developed Technologies" pilot program. FY 2007 reflects the realignment of funds into one consolidated "Technical Information Services" activity area continuing management of on-going programs under that one consolidated activity area.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605804N
PROJECT NUMBER: 0835

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES
PROJECT TITLE: TECH INFO SVCS

FY 2005 Accomplishments:

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

FY 2006 Plans:

- Continue all efforts of FY 2005 less those noted as completed above.

FY 2007 Plans:

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

	FY 2005	FY 2006	FY 2007
TECHNICAL INFORMATION SERVICES	118	122	670

Technical Information Services supports information exchange on Navy research and development requirements and advanced acquisition information and information technology tools necessary to provide management and oversight of the DoN domestic technology transfer and technology transition programs.

ONR Product Innovation Division will complete project realignments and consolidation of all on-going activity areas into the Technical Information Services activity area.

FY 2005 Accomplishments:

- Continued to support NARDIC as the primary outreach resource to the private sector.
- 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.

FY 2006 Plans:

- Continue all efforts of FY 2005.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605804N
PROJECT NUMBER: 0835

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES
PROJECT TITLE: TECH INFO SVCS

FY 2007 Plans:

- Continue all Technical Information Services efforts of FY 2006.
- Continue Technology Transfer Transition 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 2005	FY 2006	FY 2007
COMMERCIALIZATION OF NAVY-DEVELOPED TECHNOLOGIES	107	0	0

The pilot program to assess venture capital interest and impact on commercial intellectual property innovations directed towards addressing naval challenges was completed with results distributed to DoN policy organizations. The study served its intended purpose thereby releasing 112K and 107K in FY 2006 and FY 2007 respectively. The FY 2006 funding was realigned to the 'Leverage of Industry R&D' activity and the FY 2007 funding was realigned to the 'Technical Information Services' activity.

FY 2005 Accomplishments:

- Completed pilot program to assess the application of commercial intellectual property driven innovation to naval challenges. Final report produced and distributed.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605804N
PROJECT NUMBER: 0835

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES
PROJECT TITLE: FEDERAL LABORATORY CONSORTIUM

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
2296 FEDERAL LABORATORY CONSORTIUM	416	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 2005	FY 2006	FY 2007
FEDERAL LAB CONSORTIUM	416	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 2005 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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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

CONGRESSIONAL PLUS-UPS:

	FY 2005	FY 2006
COMMERCIALIZATION OF ADVANCED TECHNOLOGY	6,563	5,000

FY 2005: Supported an innovative and cost-effective capability to identify, evaluate, and commercialize cutting edge technologies from any source, such as academia, private industry, and government facilities which addressed naval requirements and other government defined priority issues.

FY 2006: This effort will support commercialization of advanced technology research.

	FY 2005	FY 2006
HTDV	4,049	4,000

FY 2005: Hawaii Technology Development Venture (HTDV) awarded grants/contracts to support research associated with defense wide research initiatives; 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: This effort will provide for continued investment in local technology companies research on UAV sensor packages, robotics applications, force protection and IED detect, prevention and threat elimination. HTDV will provide 15-25 grants awarded in a competitive proposal process.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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

	FY 2005	FY 2006
ILLINOIS TECHNOLOGY TRANSITION CENTER	1,252	1,000

FY 2005: Illinois Technology Transition Center established a Technology Transition Center that will identify key Office of Naval Research/Department of the Navy technology needs and match them with the manufacturing and S&T capabilities resident in the state of Illinois. It funded key technology development activities identified by the Center as approved by the Office of Naval Research.

FY 2006: This effort supports research at the Illinois Technology Transition Center.

	FY 2005	FY 2006
INTEGRATED MANUFACTURING ENTERPRISE	3,763	3,000

FY 2005: Integrated Manufacturing Enterprise initiated 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) to significantly impact the cost, quality, and schedule of Navy ships.

FY 2006: This effort supports integrated manufacturing enterprise research.

	FY 2005	FY 2006
JITC	0	7,700

This effort will provide for early stage development projects improving information assurance within medical information surveillance, medical logistics repository, guardian systems for exchange of information between classified and non-classified component commander data bases and Hawaiian educational outreach at the K-12 level.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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

	FY 2005	FY 2006
PACIFIC-BASED JOINT INFORMATION TECHNOLOGY CENTER	8,199	7,500

FY 2005: 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 Combatant Commanders. Supported educational outreach K-12 in Hawaii to engage students in emerging technology applications.

FY 2006: This effort supports research at the Pacific-Based Joint Information Technology Center.

	FY 2005	FY 2006
SUPPLY CHAIN PRACTICES FOR AFFORDABLE NAVY SYSTEMS (SPANS)	964	0

SPANS improved the affordability of Navy Acquisition programs by increasing the efficiency of the supply chain networks through the Navy's Supply Chain Practices for Affordable Navy Systems project. The FY 2005 effort shifted the emphasis to assist in the transformation of the Navy's organic maintenance and logistics organizations.

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EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6				R-1 ITEM NOMENCLATURE 0605853N/Management, Technical and International Support			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	30.080	42.611	47.213	48.998	49.206	49.890	51.071
3039 CHENG	12.476	13.842	16.146	17.133	16.748	17.135	17.567
0149 International Cooperative RDT&E	1.624	1.696	4.756	4.837	4.897	4.957	5.019
1767 Naval War College/Center for Naval Warfare Studies	2.352	3.262	3.087	3.235	3.316	3.356	3.426
3025 Capital Asset Management System	2.349	2.008	1.526	1.556	1.558	1.594	1.634
2221 Assessment Program	11.279	21.803	21.698	22.237	22.687	22.848	23.425
Quantity of RDT&E Articles	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>Defense Emergency Response Funds (DERF) Funds: N/A</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>Project 3039 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 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 (NCEE) 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. RDA CHENG consolidated System and Technical Architectures and Large Scale Systems Engineering, in fiscal year 2006, into one Systems Engineering line item to achieve greater synergy. Program increase in fiscal year 2007 includes funding for previously authorized but unfunded DON Anti-Tamper requirement.</p> <p>Project 0149 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 command (COCOMs), N3/5, 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 FY05 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 FY07, 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>							

R-1 SHOPPING LIST - Line Item No. 149

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Exhibit R-2, RDTEN Budget Item Justification
(Exhibit R-2, Page 1 of 31)

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CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6	R-1 ITEM NOMENCLATURE 0605853N/Management, Technical and International Support

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

Project 1767 , 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.

Project 3025, 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.

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, identify needs, gaps, and overlaps, and assess 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 Planning, Programming and Budgeting Execution (PPBE) and provides Gap analysis and Investment Strategy (Total Obligational Authority (TOA) allocation). Provides independent capability analysis directly to Chief of Naval Operations (CNO) and assists in structuring follow-on Office of the Chief of Naval Operations (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 (N00X) 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 establish 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.

R-1 SHOPPING LIST - Item No. 149

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Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, Page 2 of 31)

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CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2006																																																				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Support																																																				
(U) B. PROGRAM CHANGE SUMMARY:																																																					
Funding:	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: right;">FY 2005</th> <th style="width: 10%; text-align: right;">FY 2006</th> <th style="width: 10%; text-align: right;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>FY06 President's Budget</td> <td style="text-align: right;">30.692</td> <td style="text-align: right;">44.847</td> <td style="text-align: right;">45.438</td> </tr> <tr> <td>FY07 President's Budget</td> <td style="text-align: right;">30.080</td> <td style="text-align: right;">42.611</td> <td style="text-align: right;">47.213</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-0.612</td> <td style="text-align: right; border-top: 1px solid black;">-2.236</td> <td style="text-align: right; border-top: 1px solid black;">1.775</td> </tr> <tr> <td colspan="4"> </td> </tr> <tr> <td style="padding-left: 20px;">Summary of Adjustments</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 40px;">Small Business Innovation Research (SBIR)</td> <td style="text-align: right;">-0.509</td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 40px;">Sec. 8026(f): Federally Funded Research and Development Centers</td> <td></td> <td style="text-align: right;">-0.064</td> <td></td> </tr> <tr> <td style="padding-left: 40px;">Sec. 8125: Revised Economic Assumptions</td> <td></td> <td style="text-align: right;">-0.204</td> <td></td> </tr> <tr> <td style="padding-left: 40px;">Congressional Reduction</td> <td></td> <td style="text-align: right;">-0.468</td> <td></td> </tr> <tr> <td style="padding-left: 40px;">Program Adjustments</td> <td style="text-align: right;">-0.103</td> <td style="text-align: right;">-1.500</td> <td style="text-align: right;">1.415</td> </tr> <tr> <td style="padding-left: 40px;">Rate Adjustment</td> <td></td> <td></td> <td style="text-align: right;">0.360</td> </tr> <tr> <td style="padding-left: 40px;">Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">-0.612</td> <td style="text-align: right; border-top: 1px solid black;">-2.236</td> <td style="text-align: right; border-top: 1px solid black;">1.775</td> </tr> </tbody> </table>		FY 2005	FY 2006	FY 2007	FY06 President's Budget	30.692	44.847	45.438	FY07 President's Budget	30.080	42.611	47.213	Total Adjustments	-0.612	-2.236	1.775					Summary of Adjustments				Small Business Innovation Research (SBIR)	-0.509			Sec. 8026(f): Federally Funded Research and Development Centers		-0.064		Sec. 8125: Revised Economic Assumptions		-0.204		Congressional Reduction		-0.468		Program Adjustments	-0.103	-1.500	1.415	Rate Adjustment			0.360	Subtotal	-0.612	-2.236	1.775
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(U) C. Acquisition Strategy:																																																					
Not Applicable.																																																					

R-1 SHOPPING LIST - Item No. 149

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Support			PROJECT NUMBER AND NAME 3039 CHIEF ENGINEER (CHENG)		
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	12.476	13.842	16.146	17.133	16.748	17.135	17.567
RDT&E Articles Qty							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Project 3039 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 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 initiatives. RDA CHENG consolidated System and Technical Architectures and Large Scale Systems Engineering, in fiscal year 2006, into one Systems Engineering line item to achieve greater synergy. Program increase in fiscal year 2006 includes funding for previously authorized but unfunded DON Anti-Tamper requirement.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHIEF ENGINEER (CHENG)

B. Accomplishments/Planned Program

	FY 2005	FY 2006	FY 2007
Standards, Policy, and Guidelines	3.500	3.400	5.000

FY 2005 ACCOMPLISHMENTS:

- Assessed the Naval Acquisition System process and documents (SECNAVINST 5000.2C and Guidebook) and their alignment with Joint and DOD standards, policies and guidelines and led the development of SECNAVINST 5000.2C Chapter 7 (Systems Engineering and Human Systems Integration) and DON Capabilities and Acquisition Guidebook, Chapter 7.
- Completed assessment of Information Support Plans (ISPs), Joint Battle Management Command and Control (JBMC2) and Integrated Air and Missile Defense Roadmap updates.
- Developed interim FORCENet Implementation Policy for Acquisition Community with CNO N6/7, NETWARCOM, Systems Commands, Program Executive Offices (PEOs) and Program Managers (PMs).
- Led technical alignment of Navy FORCENet and Operational Architecture (OA) standards with DOD Information Technology (IT) Registry (DISR) standards and Joint Battle Management Command and Control (JBMC2) subgroups.
- Represented ASN RD&A in the OSD Systems Engineering Forum discussions leading to acquisition policy changes in systems engineering, such as modeling and simulation, reliability and maintainability.

FY 2006 PLAN:

- Continue alignment of standards, policy, and guidelines horizontally and vertically. Provide an integrated quick reference roadmap for acquisition programs on how the policies fit together and provide a comprehensive summary of standards, policy, and guidelines, known issues, processes and specific engineering products.
- Continue technical alignment of Navy FORCENet and OA standards with DISR standards and JBMC2 subgroups.
- Continue to represent ASN RD&A in the OSD Systems Engineering Forums to address the impact of Family-of-System and System-of-System (FOS/SOS) engineering policy in acquisition.
- Develop FORCENet Integration and Interoperability Management Plan.

FY 2007 PLAN:

- Continue standards, policy, and guidelines assessments to de-conflict inaccuracies and conflicting information between them and update summary of standards, policy, and guidelines, known issues, processes and specific engineering products for PEOs/PMs, and Systems Commands.
- Continue to represent ASN RD&A in the OSD Systems Engineering Forums and reviews to address FOS/SOS policy in acquisition.
- Continue technical alignment of Navy FORCENet and OA standards with DISR standards and JBMC2 subgroups.
- Implement FORCENet Integration and Interoperability Management Plan.
- Continue working with DOD Anti-Tamper Executive Agent on DON policy and implementation and select and evaluate Anti-Tamper technologies in designated areas of interest.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Support	PROJECT NUMBER AND NAME 3039 CHIEF ENGINEER (CHENG)

B. Accomplishments/Planned Program

	FY 2005	FY 2006	FY 2007
Naval Collaborative Engineering Environment (NCEE)	2.076	3.000	3.000

FY 2005 ACCOMPLISHMENTS:

- Implemented external interfaces to the Naval Collaborative Engineering Environment (NCEE) with authoritative DON data bases: conducted Information Management Summit to develop cross domain synergy in data management and usage; instantiated a Naval Air Systems Command (NAVAIR) pilot project to integrate across NAVAIR, USMC Command Development Center (MCCDC) and USMC Systems Command data bases; established FORCEnet implementation baseline (FIBL) integration approach with Space and Warfare Command at Charleston, SC; passed DOD Acquisition Repository System (DARS) benchmark test in the function data area.
- Provided technical support and implemented an initial baseline for the Joint Fires (previously Land Attack) Systems Engineering Integrated Product Team (SE IPT) integrated database. Provided the basis for developing executable architectures to support performance analyses and trade studies.
- Built and implemented a collaborative engineering environment across The Technical Coalition Partners, Technical Panel – 4 member countries.
- Coordinated with Open Architecture (OA) programs on the development of an Open Architecture Asset Repository (OAAR) with web interface (including industry access) for asset control and OA software reuse test cases. Continued test case for the Ship Gridlock System Auto Correlation (SGS/AC) program and the CV aircraft carrier Tactical Support Center (CV/TSC), and test case for DDX destroyer, Ship Self Defense System (SSDS) and AEGIS combat weapon system.
- Established new partner workspaces to provide collaborative capabilities for the Naval Sea Systems Command and Space and Warfare Systems Command (42 main workspaces and 249 sub-workspaces).
- Continued technical collaboration with Joint Forces Command (JFCOM) to identify collaborative engineering environment requirements and mutual work sharing.

FY 2006 PLAN:

- Continue to develop and implement external interfaces to the NCEE with authoritative DON data bases: complete FIBL integration; continue pilot to implement NAVAIR-MCCDC-MARCOR-NCEE data integration; participate in the DARS testing phase on operational data area building tool to receive architectures and translate them into DARS; begin Program Executive Office and Program Manager (PEOs/PMs) repository development, systems engineering tool coordination, collaborative workspaces, lessons learned and verification and validation modules.
- Continue technical support to on going Family-of-System and System-of-System (FOS/SOS) SE IPTs. Evolve workspace and database tool connectivity to support new SE IPTs.
- Complete coordination with OA programs on the development of an OAAR with web interface (including industry access) for asset control and OA software reuse test cases. Complete test cases for the SGS/AC and CV/TSC programs. Complete test case for DDX, SSDS and AEGIS programs.

FY 2007 PLAN:

- Continue to develop and implement external interfaces to the NCEE with authoritative DON data bases: continue PEOs and PMs repository development, systems engineering tool coordination, collaborative workspaces, lessons learned and verification and validation modules for selected major acquisition programs; begin NFDS implementation support; extend capabilities to other services and agencies to support joint initiatives.
- Continue to provide technical support for building the OAAR and its use by associated OA government and industry stakeholders.
- Continue to evolve workspace collaboration, and databases, engineering tools and connectivity to support the DON Enterprise.

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B. Accomplishments/Planned Program

	FY 2005	FY 2006	FY 2007
System and Technical Architectures	3.000		

FY 2005 ACCOMPLISHMENTS:

- Implemented the integrated architecture governance process and the Common System Function List (CSFL) configuration management within other DON processes such as FORCEnet, Virtual Systems Command, and Information Support Plan (ISP) review. Serve as voting/Advisory member of the FORCEnet Integrated Architecture Governance process.
- Aligned DON architecture process with evolving Joint and OSD initiatives such as Joint Battle Management Command and Control (JBMC2) actions.
- Developed standardized Naval Architecture Taxonomies including System Functions and Operational Activities to ensure common, relatable architecture development as basis for integration and validation of Sea Power 21 and Marine Corps Strategy 21 pillars against Joint and Global Information Grid (GIG) integrated architectures.
- Supported Joint Fires (previously Land Attack) architecture development.
- Represented DON on OSD 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.

FY 2006 PLAN:

- Transferred to Systems Engineering line item.

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B. Accomplishments/Planned Program

	FY 2005	FY 2006	FY 2007
Large Scale Systems Engineering	3.900		

FY 2005 ACCOMPLISHMENTS:

- Developed Joint Fires (previously Land Attack) System Engineering Integrated Product Team (SE IPT) "current" and "future" executable architectures and model; System Performance Document (SPD) and lessons learned.
- Participated in the development of the Naval Integrated Fire Control - Counter Air (NIFC-CA) SPD, System Engineering Plan (SEP) and Risk Assessment.
- Provided Wideband Network Waveform (WNW) SE IPT technical support in the development and approval of the Charter, SPD, Risk Management Plan and Operational Architectures.
- Developed and promulgated Naval Capabilities Evolution Process (Family-of-Systems / System-of-Systems) Guidebook Volume I Version 1.1.
- Engineered a Naval Force Development System (NFDS) assessment of organizations and processes that tie together the Joint Capability Development System (JCIDS), Planning, Programming, Budgeting Execution System (PPBE), and the Defense Acquisition System in response to ASN (RD&A) direction. Conducted reviews on Combat Identification and Undersea Warfare capability areas.

FY 2006 PLAN:

- Transferred to Systems Engineering line item.

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B. Accomplishments/Planned Program

	FY 2005	FY 2006	FY 2007
Systems Engineering		7.442	8.146

FY 2005 ACCOMPLISHMENTS:

- See System and Technical Architectures and Large Scale Systems Engineering line item.

FY 2006 PLAN:

- Manage and evolve DON architecture governance process, guidance and relationship with Joint and OSD architecture processes.
- Perform Sea Strike, Sea Shield, Sea Basing and FORCEnet integrated architecture assessments as the basis for representing a Naval architecture for use in Joint and OSD communities.
- Complete 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.
- Continue Navy technical support to OSD and Joint engineering initiatives such as: 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.
- Develop and promulgate Volume II of the Naval Capabilities Evolution Process Guidebook to include architecture best practices.
- Continue technical support to on going Family-of-Systems / System-of-Systems (FOS/SOS) System Engineering Integrated Product Teams (SE IPTs) and initiate new SE IPTs to support CNO priority capability needs.
- Provide 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.
- Develop and promulgate guidance implementing OSD and DON systems engineering revitalization recommendations, modeling and simulation, test and evaluation and integration and interoperability certification.
- Develop a plan of action and milestones and initiate implementation of major finding of the Naval Force Development System (NFDS) assessment including associated changes to SECNAVINST 5000.2C acquisition, capabilities, policies and procedures.

FY 2007 PLAN:

- Develop and promulgate technical basis for portfolio level Family-of-System and System-of-System (FOS/SOS) capability based acquisition.
- Perform Naval Power 21 capabilities-based, Integrated Architecture product assessments.
- Revise and promulgate Naval Capabilities Evolution Process Guidebook (Volumes I and II) to include lessons learned.
- Continue technical support to on going FOS/SOS SE IPTs and initiate new SE IPTs to support CNO priority capability needs.
- Continue technical support for development of acquisition milestone documentation and Integration and Interoperability Risk Identification assessments in support of DD (X), ADS, LHA (R), DJC2 and the LCS Program Executive Offices.
- Continue implementation of recommended NFDS assessment process and product improvements.

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EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		0605853N/Management, Technical, and International Support			PROJECT NUMBER AND NAME 0149 International Cooperative RDT&E			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
*Project Cost	1.624	1.696	4.756	4.837	4.897	4.957	5.019	
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 command (COCOMs), N3/5, 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 FY05 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), Senior National Representative-Maritime (SNR-M));
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 (CWP) Program.

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B. Performance Metrics:

The Navy International Cooperative RDT&E Project 0149 supports the implementation of many international cooperative program activities throughout the DoN RDT&E communities. The project funds DoN participation in NATO and OSD-lead Armaments Cooperation fora as well as DoN-lead international cooperation fora 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.

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B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
International Coop	1.624	1.696	4.756

FY 2005 ACCOMPLISHMENTS:

As directed by the CNO's FY05-06 Maritime Security Guidance and in coordination with COCOMs and N6/7:

- Defined 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 C4I with maritime partner nations.

Continued cooperative programs and added new emphasis on acquisition of GWOT and MDA technologies with friendly nations and new allies. Worked with U.S. DoD, 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 USN 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.

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B. Accomplishments/Planned Program

FY 2006 PLANS:

FY 06 plans will see a continuation of FY05's new mission efforts. In coordination with Combatant Commanders, US State Department, Office of Defense Coordination, Office of Naval Research, and Navy International Programs Office, SNR will assess, identify, prioritize and engage in cooperative projects and exchanges with friendly and allied countries particularly in GWOT and 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 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 and capabilities

FY 2007 PLANS:

- Beginning in FY07, 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, 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.
- Continue all efforts of FY06 less those noted as completed above.

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<p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Not Applicable</p> <p>D. ACQUISITION STRATEGY: Not Applicable</p>		

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		0605853N/Management, Technical and International Support			PROJECT NUMBER AND NAME 1767 Naval War College/Center for Naval Warfare Studies			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
*Project Cost	2.352	3.262	3.087	3.235	3.316	3.356	3.426	
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, and 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 options for the President of the United States.

Performance Metrics: This is a level of effort project to provide research 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.

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B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Strategic Studies	1.251	1.665	1.511

NWC conducts research in strategic studies in response to tasking from the Secretary of the Navy (SECNAV), CNO, Fleet, numbered Fleet, and Combatant Commanders. 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 2005 ACCOMPLISHMENTS:

NWC conducted strategic research, analysis and studies in response to SECNAV, CNO, Fleet, numbered Fleet, and Combatant Commander tasking in such areas as maritime strategy, decision support, and direct fleet support. Efforts included research and analysis support for Sea Power 21, Sea Basing, Maritime Strategy, Navy missions and requirements for the Global War on Terror, globalization and counter proliferation strategies, theater Anti Submarine Warfare Ballistic Missile Defense, Proliferation Security Initiative and Naval/Defense Transformation. The CNO's SSG completed an examination of the Future Maritime Operating Environment for the fight against global terrorism to determine maritime operational concepts needed in 2030 and beyond.

FY 2006 PLANS:

Continue to conduct strategic studies in response to SECNAV, CNO, Fleet, numbered Fleet, and Combatant Commander tasking in the areas of maritime strategy, decision support, direct fleet support and maritime domain awareness. The CNO's SSG will continue to conduct warfighting innovation and revolutionary concept generation in response to direct tasking from the CNO.

FY 2007 PLANS:

Continue to conduct strategic studies in response to SECNAV, CNO, Fleet, numbered Fleet, and Combatant Commander tasking in such areas as maritime strategy, decision support, direct fleet support and maritime domain awareness. The CNO's SSG will continue to conduct warfighting innovation and revolutionary concept generation in response to direct tasking from the CNO.

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B. Accomplishments/Planned Program (Cont.)

	FY 05	FY 06	FY 07
Naval War gaming Support	1.030	1.522	1.498

As the nation's premier defense war gaming center, 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 2005 ACCOMPLISHMENTS:

Conducted 30-40 war gaming and associated activities in support of OPNAV staff, Naval Warfare Development Command (NWDC) and the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Major war gaming efforts included games in support of research on networked Command and Control (C2), maritime homeland defense, Sea Basing, SEA TRIAL, advanced Command and Control, and Nuclear Guided Missile Submarines (SSGN) future capabilities. Began to develop a Joint Forces Maritime Component Commanders (JFMCC) Center of Excellence with operational research and experimentation capability.

FY 2006 PLANS:

Conduct 50-55 major war games and related events in support of OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Develop networked warfare war gaming system in order to support research on networked C2. Conduct operational research and experimentation for JFMCC concept development via JFMCC Center of Excellence. Continue 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. Conduct research supporting war games co-sponsored with NWDC and US Joint Forces Command. Develop advanced war gaming analytical methods and tools.

FY 2007 PLANS:

Conduct 50-55 major war games and related events in support of OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. 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. Conduct research supporting war games co-sponsored with NWDC and US Joint Forces Command. Develop advanced war gaming analytical methods and tools.

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B. Accomplishments/Planned Program (Cont.)

	FY 05	FY 06	FY 07
NWC Student Research Projects	0.071	0.075	0.078

Selected, top-performing NWC students 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 2005 ACCOMPLISHMENTS:

Conducted focused research and analysis of current and future strategic and operational challenges under the Mahan Scholars and Halsey Group programs. Completed projects that have been presented to the CNO include a Theater Ballistic Missile Defense Concept of Operations, Theater Anti Submarine Warfare (ASW) Concept of Operations, Seabasing and Strategies of War Termination. All represent real world strategic and operational challenges of concern to the CNO.

FY 2006 PLANS:

Continue to conduct focused research and analysis of current and future strategic and operational challenges and tactical imperatives by the Mahan Scholars and Halsey Group programs.

FY 2007 PLANS:

Continue to conduct focused research and analysis of current and future strategic and operational challenges and tactical imperatives by the Mahan Scholars and Halsey Group programs.

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<p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Not Applicable</p> <p>D. ACQUISITION STRATEGY: Not Applicable</p>		

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		0605853N/Management, Technical, and International Support			PROJECT NUMBER AND NAME 3025 Mid-Range Financial Improvement Plans			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
*Project Cost	2.349	2.008	1.526	1.556	1.558	1.594	1.634	
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

One of the DoD's and Navy's priority goals is to gain a clean and auditable financial statement by FY 2007. The OSD Comptroller, in his 08 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 statements for RDT&E,N.

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

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B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Financial Improvements	2.349	2.008	1.526

FY 2005 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 2006 PLANS:

- Continue to post obligations within the reporting period in which they are incurred.
- Continue to pursue and expand the practice of having major contracting activities post awards electronically to STARS.
- Continue to perform obligation validation to ensure that posted obligations are accurate. With the sheer volume of obligation documents to validate, this is a labor intensive effort requiring follow-up work to electronically requested validations.
- Continue to revise accounts receivable process to more accurately record collections. Venture to utilize Overnight Collections History special reports available via the East Coast CA -View region.
- Continue to manually record AP when material or service is received and accepted. Assuming a functional AP input screen is available in STARS-HCM, develop process to gather receipt/acceptance data from logistical operations side of the house and/or contractors.
- Continue monitoring to prevent duplication in vendor pay accounting system, STARS One Pay, as invoices are settled.
- Continue to eliminate problem disbursements older than 120 days, narrowing to 60 days and potentially narrowing even further.

R-1 LINE ITEM 149

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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		
<p>FY 2007 PLANS:</p> <ul style="list-style-type: none"> - Continue to post obligations within the reporting period in which they are incurred. - Continue to pursue and expand the practice of having major contracting activities post awards electronically to STARS. - Continue to perform obligation validation to ensure that posted obligations are accurate. With the sheer volume of obligation documents to validate, this is a labor intensive effort requiring follow-up work to electronically requested validations. - Continue to revise accounts receivable process to more accurately record collections. Venture to utilize Overnight Collections History special reports available via the East Coast CA -View region. - Continue to manually record AP when material or service is received and accepted. Assuming a functional AP input screen is available in STARS-HCM, develop process to gather receipt/acceptance data from logistical operations side of the house and/or contractors. - Continue monitoring to prevent duplication in vendor pay accounting system, STARS One Pay, as invoices are settled. - Continue to eliminate problem disbursements older than 120 days, narrowing to 60 days and potentially narrowing even further. 		

R-1 LINE ITEM 149

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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
<p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Not Applicable</p> <p>D. ACQUISITION STRATEGY: Not Applicable</p>		

R-1 LINE ITEM 149

UNCLASSIFIED

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2006	
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 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011
Project Cost	11.279	21.803	21.698	22.237	22.687	22.848	23.425
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, identify needs, gaps, and overlaps, and assess 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 Planning, Programming and Budgeting Execution (PPBE) and provides Gap analysis and Investment Strategy (Total Obligational Authority (TOA) allocation). Provides independent capability analysis directly to Chief of Naval Operations (CNO) and assists in structuring follow-on Office of the Chief of Naval Operations (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-hatted as the head of CNO's Capability Analysis Group (N00X) 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 establish 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.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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 05	FY 06	FY 07
Navy Standard Scenarios	1.232	1.330	1.451

FY 2005 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.

FY 2006 PLAN:

Continue to develop, update and maintain detailed level Navy Standard scenarios based on Defense Planning Guidance. Develop Alternative Scenarios in Support of Quadrennial Defense Review (QDR), Joint Studies, and Navy Resource Analyses.

FY 2007 PLAN:

Continue to develop, update and maintain detailed level Navy Standard scenarios based on Defense Planning Guidance. Develop Alternative Scenarios in Support of Quadrennial Defense Review (QDR), Joint Studies, and Navy Resource Analyses.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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 05	FY 06	FY 07
Capability Based Assessments	2.321	2.506	2.732

FY 2005 ACCOMPLISHMENTS:

Capability Sponsors' Products. Collaborative assessment with capability sponsors . Proactively participated in Capability Sponsors' Integrated Processing Teams (IPTs). Presented opposing, analytically-based points of view . Performed analytically-based decision recommendations to CNO for both warfighting and support areas. Developed CNO Investment Strategy recommendations and performed assessments and developed the Chief of Naval Operations Program Analysis Memoranda (CPAM). Assessed capability sponsor products for senior leadership decision forums. Verification, Validation & Accreditation (VV&A) of warfare/performance/pricing models. Assessed all results relating to Sea Enterprise initiatives (Skunkworks, Level of Effort (LOE) review, etc).

FY 2006 PLAN:

Continue Capability Sponsors' Products. Collaborative assessment with capability sponsors . Proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Present opposing, analytically-based points of view . Perform analytically-based decision recommendations to CNO for both warfighting and support areas. Develop CNO Investment Strategy recommendations and perform assessments and develop the Chief of Naval Operations Program Analysis Memoranda (CPAM). Assess capability sponsor products for senior leadership decision forums. Verification, Validation & Accreditation (VV&A) of warfare/performance/pricing models. Assess all results relating to Sea Enterprise initiatives and lead where appropriate (Skunkworks, Level of Effort (LOE) review, etc).

FY 2007 PLAN:

Continue Capability Sponsors' Products. Collaborative assessment with capability sponsors . Proactively participate in Capability Sponsors' Integrated Processing Teams (IPTs). Present opposing, analytically-based points of view . Perform analytically-based decision recommendations to CNO for both warfighting and support areas. Develop CNO Investment Strategy recommendations and perform assessments and develop the Chief of Naval Operations Program Analysis Memoranda (CPAM). Assess capability sponsor products for senior leadership decision forums. Verification, Validation & Accreditation (VV&A) of warfare/performance/pricing models. Assess all results relating to Sea Enterprise initiatives and lead where appropriate (Skunkworks, Level of Effort (LOE) review, etc).

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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 05	FY 06	FY07
Campaign Analysis - Modeling and Simulation	6.217	6.700	6.581

FY 2005 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.

FY 2006 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. Lead Navy's participation in Office of the Secretary of Defense (OSD)/Joint Staff analytic agenda, baseline development, and collection of data. Provide path and structure for coordination across the Navy. Broker agreed upon assumptions, Concept of Operations (CONOPS), scenarios and data.

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. Lead Navy's participation in Office of the Secretary of Defense (OSD)/Joint Staff analytic agenda, baseline development, and collection of data. Provide path and structure for coordination across the Navy. Broker agreed upon assumptions, Concept of Operations (CONOPS), scenarios and data.

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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 05	FY 06	FY 07
OSD/Joint Staff Study Analysis & Assessment	1.509	1.629	1.772

FY 2005 ACCOMPLISHMENTS:

Continued to lead Joint Requirements Oversight Council (JROC), Joint Capabilities Board (JCB), and Functional Capabilities Board (FCB), participation. Led 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. Promoted and defended Navy Program Objectives Memorandum (POM). Provided participation in Office of the Secretary of Defense (OSD) and Joint Staff analysis assessment and provided structure for coordination across the Navy. 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. Created an analytic infrastructure of data of forces, units, equipment, data, Red and Blue Concept of Operations (CONOPS). Continued to coordinate/support Joint Analytical Model Improvement Program (JAMIP).

FY 2006 PLAN:

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 Process (SPG), and participate in Capability Sponsors' Integrated Processing Teams (IPTs). Lead Campaign Analysis for Office of the Chief of Naval Operations (OPNAV). Provide overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Perform analytically-based decision recommendations to Chief of Naval Operations (CNO) for both warfighting and support areas. Develop CNO Investment Strategy. Conduct Net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums.

FY 2007 PLAN:

Continue to coordinate/Lead 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 Process (SPG), and participate in Capability Sponsors' Integrated Processing Teams (IPTs). Lead Campaign Analysis for Office of the Chief of Naval Operations (OPNAV). Provide overarching Planning, Programming and Budgeting System (PPBS) analyses and guidance. Perform analytically-based decision recommendations to Chief of Naval Operations (CNO) for both warfighting and support areas. Develop CNO Investment Strategy. Conduct Net assessments and provide independent analytic support to Navy leadership in conjunction with various executive level decision forums.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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 05	FY 06	FY 07
World Class Modeling, Simulation, and Capability Analysis	0.000	9.638	9.162

FY 2006 PLAN:

Takes 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. It also includes the development of new models in new mission areas (including Expeditionary Warfare (EXWAR), Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR), Force Protection/Anti-Terrorism (FP/AT), Information Operations (IO), & Global War on Terrorism (GWOT)), assessments and improvements of current models to better reflect Navy's developing capabilities, provision for rigorous Verification, Validation, and Accreditation of Navy models.

Provides the Navy with concise and innovative analyses and assessment to help optimize Navy Programs and investment decisions. Supports 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. Evaluates 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. Supports Fleet Readiness and Logistics modeling and simulation.

FY 2007 PLAN:

Continue to provide the Navy with concise and innovative analyses and assessment to help optimize Navy Programs and investment decisions. Supports 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. Evaluates 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. Supports Fleet Readiness and Logistics M&S.

Improve OPNAV analysis tools used for requirements determination and effectiveness evaluation. Improve the ability to model emerging security challenges and operations concepts (Irregular, Catastrophic, Disruptive challenges). Develop optimization models that work across multiple warfare areas. Improve the traceability of data through the modeling hierarchy. Refine the linkages between cost and mission performance in performance-modeled acquisition programs.

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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
<p>C. OTHER PROGRAM FUNDING SUMMARY:</p> <p>Not Applicable.</p> <p>D. ACQUISITION STRATEGY:</p> <p>Not Applicable.</p>		

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	3,380	3,400	3,347	3,453	3,614	3,700	3,786
0128 MANAGEMENT AND TECHNICAL STRATEGIC SUPPORT	1,223	1,273	1,255	1,309	1,344	1,378	1,410
1038 ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT	2,157	2,127	2,092	2,144	2,270	2,322	2,376

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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2006 President's Budget Submission	3,454	3,451	3,605
Congressional Undistributed Reductions/Rescissions	-3	-51	0
Functional Realignment for OPNAV Program Support Costs	0	0	-62
FY 2005 SBIR	-72	0	0
Program Adjustments	1	0	-243
Rate Adjustments	0	0	47
FY 2007 President's Budget Submission	3,380	3,400	3,347

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,

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
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DATE: Feb 2006

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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605856N
PROJECT NUMBER: 0128

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT
PROJECT TITLE: MANAGEMENT AND TECHNICAL STRATEGIC SUPPORT

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0128 MANAGEMENT AND TECHNICAL STRATEGIC SUPPORT	1,223	1,273	1,255	1,309	1,344	1,378	1,410

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 2005	FY 2006	FY 2007
MANAGEMENT AND TECHNICAL SUPPORT, STRATEGIC	1,223	1,273	1,255

FY 2005 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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
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DATE: Feb 2006

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 2006 Plans:

- Continue all efforts of FY05, less those noted as completed above.

FY 2007 Plans:

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

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605856N
PROJECT NUMBER: 1038

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT
PROJECT TITLE: ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
1038 ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT	2,157	2,127	2,092	2,144	2,270	2,322	2,376

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 mammals and development of Surveillance Towed Array Sonar Systems (SURTASS) Low Frequency Active (LFA) Supplemental Environmental Impact Statement (EIS).

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
ACOUSTIC AND NON-ACOUSTIC ANALYSIS SUPPORT	2,157	2,127	2,092

FY 2005 Accomplishments:

- Continued preparation of Draft Supplemental EIS for SURTASS LFA.
- Continued preparation of application for 2nd 5-year Rule for SURTASS LFA under the Marine Mammal Protection Act (MMPA).
- Continued preparation of Biological Assessment for consultation under the Endangered Species Act (ESA) for 2nd 5-year Rule for SURTASS LFA.
- Continued research to update guidelines for exposure of divers to underwater low frequency (LF) sound.
- Continued analysis of research to determine the potential physiological impact of LFA on fish.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605856N

PROJECT NUMBER: 1038

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

PROJECT TITLE: ACOUSTIC AND NONACOUSTIC ANALYSIS SUPPORT

- Continued analyses to determine the long-term effects of IUSS Sensors on marine mammals.
- Continued environmental compliance support for issuance of annual Letters of Authorization (LOAs) under the MMPA and required reporting for SURTASS LFA vessels.
- Continued to conduct analysis of undersea technology for application for future undersea surveillance capabilities.
- Continued to assess the current and future IUSS warfare areas and potential allied Navy contributions.

FY 2006 Plans:

- Complete and file Draft Supplemental EIS for SURTASS LFA.
- Complete and submit application for 2nd 5-year Rule for SURTASS LFA under the Marine Mammal Protection Act (MMPA).
- Complete and submit Biological Assessment for consultation under the Endangered Species Act (ESA) for 2nd 5-year Rule for SURTASS LFA.
- Complete research to update guidelines for exposure of divers to underwater low frequency (LF) sound.
- Complete analysis and response to comments on Draft Supplemental EIS for SURTASS LFA.
- Complete and file Final Supplemental EIS for SURTASS LFA
- Complete analysis of research to determine the potential physiological impact of LFA on fish.
- Continue support for 2nd 5-year rule making under the MMPA and associated ESA consultation for SURTASS LFA.
- Continue all efforts of FY05 less those noted as completed above.

FY 2007 Plans:

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

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	62,513	62,531	67,328	69,735	71,235	72,781	74,367
0135 ONR SCIENCE AND TECHNOLOGY MANAGEMENT	57,500	59,395	64,015	66,307	67,738	69,214	70,727
0137 ONR S&T INSTRUMENTATION MODERNIZATION	1,894	0	0	0	0	0	0
2353 R&D DFAS BILLINGS	3,119	3,136	3,313	3,428	3,497	3,567	3,640

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 costs. The vast majority of these items represent fixed costs associated with Scientists and Engineers supporting the Navy's Science and Technology (S&T) Program. The Defense Finance and Accounting Service (DFAS) Billings project provides funds for accounting services provided to Research and Development (R&D) activities.

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DATE: Feb 2006

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

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2006 President's Budget Submission	61,717	63,508	64,685
Congressional Undistributed Reductions/Rescissions	-47	-977	0
Execution Adjustments	926	0	0
Functional Realignment for OPNAV Program Support Costs	0	0	1,625
Functional Transfer of OGC Patent Intellectual Property Attorney	0	0	167
FY 2005 SBIR	-85	0	0
Pay Raise Adjustment	0	0	959
Program Adjustments	2	0	-436
Rate Adjustments	0	0	328
FY 2007 President's Budget Submission	62,513	62,531	67,328

PROGRAM CHANGE SUMMARY EXPLANATION:

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

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 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0135 ONR SCIENCE AND TECHNOLOGY MANAGEMENT	57,500	59,395	64,015	66,307	67,738	69,214	70,727

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 Navy 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 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 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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 2005	FY 2006	FY 2007
S&T MANAGEMENT SUPPORT	57,500	59,395	64,015

• The project provides for 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 and Warfare Centers, and private industry. During FY05, General Service Administration directed ONR's move to another facility. FY06 and FY07 include funding for web/networks connectivity (E-Grants, Navy Marine Corps Intranet (NMCI), etc.).

C. OTHER PROGRAM FUNDING SUMMARY:

Increase in FY06 and out is due to the realignment of Project 0137, functional realignment for OPNAV Program Support Costs, functional transfer of OGC Patent Intellectual Property Attorney, and civilian pay raise adjustments.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605861N
PROJECT NUMBER: 0137

PROGRAM ELEMENT TITLE: RDT&E SCIENCE AND TECHNOLOGY MANAGEMENT
PROJECT TITLE: ONR S&T INSTRUMENTATION MODERNIZATION

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0137 ONR S&T INSTRUMENTATION MODERNIZATION	1,894	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project purchases IT and general support equipment for ONR.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
IT AND GENERAL SUPPORT EQUIPMENT	1,894	0	0

- This project purchased IT and general support equipment for ONR Headquarters and Field Offices. FY05 included funding to outfit the new ONR facility located at One Liberty Center. Funding in FY06 and out has been realigned into Project 0135 for the onset of NMCI.

C. OTHER PROGRAM FUNDING SUMMARY:

Project is realigned into 0135 in FY06 and out.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

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 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
2353 R&D DFAS BILLINGS	3,119	3,136	3,313	3,428	3,497	3,567	3,640

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funding for accounting services provided to R&D activities by the DFAS.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
TRANSACTIONS PROCESSED IN SUPPORT OF DON R&D	3,119	3,136	3,313

- 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 2006

Appropriation/Budget Activity RDT&E,N/BA 6				R-1 Item Nomenclature: RDT&E,N Instrumentation Modernization 0605862N			
Cost (\$ in millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	\$18,433	\$1,608	\$1,243	\$1,414	\$1,472	\$1,518	\$1,556
Navy Medical Management Support/0104 1/	12,629	0	0	0	0	0	0
Medical Force Protection/3047	5,804	1,608	1,243	1,414	1,472	1,518	1,556

1/ The Navy Medical Management Support project number reflects a functional transfer of resources for overhead, facility maintenance, and general-purpose equipment from RDT&E,N to RDT&E,DHP. The Navy Medical Research and Development Laboratories predominantly support Force Health Protection research and development of biomedical technologies that help prevent illness, reduce injuries, and enhance general medical capability. Since this research is predominantly biomedical and disease related, it is more appropriate that laboratories be aligned with the Defense Health Program.

A. Mission Description and Budget Item Justification: This program element includes RDT&E,N funds for operating and miscellaneous support costs at BUMED medical research and development laboratories for costs not directly chargeable to RDT&E,N projects. Also includes 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 2005	FY 2006	FY 2007
FY 2006 President's Budget	\$19,185	\$1,632	\$1,290
FY 2007 President's Budget Request	\$18,433	\$1,608	\$1,243
Total Adjustments	-\$752	-\$24	-\$47
Rate Adjustment			\$6
Program Adjustment			-\$53
Sect. 8125 Econ Adjustment		-\$7	
Congressional Recession		-\$17	
Small Business Innovation Research Tax	-388		
Department of Energy Transfer	-15		
Execution realignment	-349		

Exhibit R-2a, RDT&E,N Project Justification

Date: February 2006

Appropriation/Budget Activity RDT&E,N/BA 6				RDT&E,N Instrumentation Modernization 0605862N			
Cost (\$ in millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Navy Medical Management Support/0104	12,629	0	0	0	0	0	0
RDT&E,N Articles Quantity							

C. Mission Description and Budget Item Justification: This project provides the funds for facility maintenance and general-purpose equipment. The Navy Medical Research and Development Laboratories predominantly support Force Health Protection research and development of biomedical technologies that help prevent illness, reduce injuries, and enhance general medical capabilities. Since this research is predominantly biomedical and disease related, it is more appropriate that laboratories be aligned with the Defense Health Program. Funds are transferred from RDT&E,N to RDT&E,DHP.

B. Accomplishments/Planned Program

	FY 2005	FY 2006	FY 2007
Accomplishment/Effort/Subtotal Cost	\$12,629	\$0	\$0
RDT&E,N Articles Quantity			

Funds provided for the operation and maintenance costs associated with BUMED's medical research laboratories, including the salaries of management support personnel and general administrative expenses. Also provided funds for routine maintenance and repair of buildings and general-purpose equipment.

C. Other Program Funding Summary: Not applicable

D. Acquisition Strategy. Not applicable

Exhibit R-2a, RDT&E,N Project Justification				Date: February 2006															
Appropriation/Budget Activity RDT&E,N/BA 6				RDT&E,N Instrumentation Modernization 0605862N															
Cost (\$ in millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011												
Medical Force Protection/3047	5,804	1,608	1,243	1,414	1,472	1,518	1,556												
RDT&E,N Articles Quantity																			
<p>A. Mission Description and Budget Item Justification: This project provides for protection of Navy Installations against terrorist activities by developing and deploying advanced technology for force protection capabilities that are cost effective. The Force Protection Ashore PE/Project provides for the maintenance, operating 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 ATFP capabilities. Included are funds for force protection requirements at our 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>																			
<p>B. Accomplishments/Planned Program</p> <table border="1"> <thead> <tr> <th></th> <th>FY 2005</th> <th>FY 2006</th> <th>FY 2007</th> </tr> </thead> <tbody> <tr> <td>Accomplishment/Effort/Subtotal Cost</td> <td>\$5,804</td> <td>\$1,608</td> <td>\$1,243</td> </tr> <tr> <td>RDT&E,N Articles Quantity</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>									FY 2005	FY 2006	FY 2007	Accomplishment/Effort/Subtotal Cost	\$5,804	\$1,608	\$1,243	RDT&E,N Articles Quantity			
	FY 2005	FY 2006	FY 2007																
Accomplishment/Effort/Subtotal Cost	\$5,804	\$1,608	\$1,243																
RDT&E,N Articles Quantity																			
<p>FY 2005 Accomplishments: Provided funds to acquire/install and modernize test equipment, devices, and facilities for operational testing at the OPTEVFOR/NAVFAC North Island Air Station Test Bed. Also, provided for test apparatus, instrumentation and support spaces for research and simulation testing of ATFP C4SI decision support at SPAWARCEN and test devices and instrumentation for water-barrier research at NFESC. Developed swimmer barrier detection and interdiction simulation capability and instrumentation support at NSWC, NUWC, and SPAWARCEN; CBRNE test and simulation capabilities at NSWC and NFESC; data acquisition and simulation capability/systems at SPAWAR, NSWC, NRL and NFESC. Also conducted RDT&E studies and analyses for technology assessments, forecasting/mapping, and tradeoffs to determine optimum RDT&E investment strategies (programs and projects) to achieve advanced anti-terrorism/force protection, operational effectiveness. Also, provided funds of the following Force Protection Requirements at BUMED medical research laboratories: Security Specialist; Security Guards; Security Driver and Training/Overtime; Maintenance of Non-Tactical Armored Vehicles; Perimeter upgrades (barriers); Alarm System ; Replacement and Upgrade Diesel Fuel Tank and Replenishment System; Upgrade and Maintenance of Communication Systems/Equipment; Handheld Metal Detectors; Maintenance/upkeep of anti-intrusion doors (steel); Personal Protective Equipment and Training.</p> <p>FY 2006 Accomplishments: The majority of this project has been realigned into PEs 0603123N and 0603725N. The remaining funds will continue to provide funds for Force Protection Requirements at BUMED medical research laboratories.</p> <p>FY 2007 Accomplishments: The majority of this project has been realigned into PEs 0603123N and 0603725N. The remaining funds will continue to provide funds for Force Protection Requirements at BUMED medical research laboratories.</p>																			
<p>C. Other Program Funding Summary: Not applicable</p>																			
<p>D. Acquisition Strategy. Not applicable</p>																			

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /						0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT		
BA 6								
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	86.459	75.974	83.140	82.644	81.133	82.768	81.767	
0354 RDT&E SHIPS SUPPORT	15.103	10.593	8.155	8.094	.751	4.854	.761	
0568 RDT&E A/C FLT HOURS	25.441	30.639	35.870	34.482	35.258	35.719	36.920	
0569 RDT&E A/C SUPPORT	35.012	27.713	30.654	31.224	35.955	32.851	34.511	
2924 RDT&E SELF DEFENSE TEST SHIP	10.903	7.029	8.461	8.844	9.169	9.344	9.575	

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This 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), Special Flig Test Instrumentation Pool (SFTIP) equipment, overhaul of ships and aircraft, as well as organizational, intermediate, and depot maintenance of ships and aircraft in the Navy RDT&E inventory.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: FEBRUARY 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605863N Ship and Aircraft Support			PROJECT NUMBER AND NAME 0354 RDT&E Ship Support			
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		15.103	10.593	8.155	8.094	0.751	4.854	0.761
RDT&E Articles Qty								
<p>MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>0354, 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.</p> <p>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), Tripartied 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.</p> <p>The USS DOLPHIN has just completed an extensive refit (over \$40M) following her Flooding/Fire incident in May 2002. AGSS-555 USS DOLPHIN has successfully completed Sea Trials and INSURV. The boat is in the process of being modified to support a key CNO Project (MK54 FOT&E) in April 2006.</p>								

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: FEBRUARY 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N /BA-6	0605863N Ship and Aircraft Support	0354 RDT&E Ship Support	
B. Accomplishments/Planned Program			
	FY05	FY 06	FY 07
USS DOLPHIN Ship Support	15.103		
FY 2005 PLANS: Plan to complete RAV 1-6 and repair TAV in 3rd qtr. FY 05. USS DOLPHIN plans on supporting MK48 ADCAP CBASS Torpedo, MK54 Torpedo (Shallow Water ASW Target-SWAT Program, Low Frequency Sonar, Advanced Deployable system (ADS) AN/SQQ-89 ASW Combat System. USS DOLPHIN plans on conducting periodic phased maintenance to maintain certification and procure material to support continued operations.			
	FY05	FY 06	FY 07
USS DOLPHIN Ship Support		10.593	
FY 2006 PLANS: Plan on conducting periodic maintenance and procurement of material for future RAV and to support continued operations.			
	FY05	FY 06	FY 07
USS DOLPHIN Ship Support			8.155
FY 2007 PLANS: Plans To continue supporting Fleet Operations.			

R-1 SHOPPING LIST - Item No. 153

CLASSIFICATION:

		DATE:	
		FEBRUARY 2006	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-6	0605863N Ship and Aircraft Support	0354 RDT&E Ship Support	
C. PROGRAM CHANGE SUMMARY:			
Funding:		FY 2005	FY 2006
Previous President's Budget: (FY 06 President's Budget Controls)		11.014	9.624
Current BES/President's Budget (FY07 President Budget Controls)		15.103	10.593
Total Adjustments		4.089	0.969
			-0.578
Summary of Adjustments		0.003	1.130
Program Adjustments		0.003	1.130
SBIR		-0.023	0.000
Rate Adjustment		0.000	0.000
Sec. 8125: Revised Economic		0.000	-0.049
Congressional reductions		0.000	-0.112
Department of Energy Transfer		-0.008	0.000
Execution Realignment		4.117	0.000
Subtotal		4.089	0.969
			-0.578
Schedule:			
Not Applicable			
Technical:			
Not Applicable			

R-1 SHOPPING LIST - Item No. 153

EXHIBIT R-2a, RDT&E Project Justification

DATE: February 2006

APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME	
RDT&E, N /		0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT					0568, RDT&E A/C FLT HOURS	
BA 6								
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
0568 RDT&E A/C FLT HOURS	25.441	30.639	35.870	34.482	35.258	35.719	36.920	
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.

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
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B. ACCOMPLISHMENTS / PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	25.441	30.639	35.870	
RDT&E Articles Qty				

Providing organizational and intermediate-level maintenance, supply and Petroleum, Oil and Lubricants (POL) in support of RDT&E aircraft operations. In FY05, we met 87% of post-maintenance test flights, aircrew training, and proficiency flight hours requirements. Based on the budget control, FY06 plans are to provide 86% of these requirements. FY07 plans are to meet 86% of the requirements.

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
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C. PROGRAM CHANGE SUMMARY

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	26.256	32.205	33.478
Current BES / President's Budget:	25.441	30.639	35.870
Total Adjustments	-0.815	-1.566	2.392

Summary of Adjustments

Congressional Reductions	-0.221	-0.325	
Economic Assumptions			5.183
Program Adjustments	-0.594	-1.099	-2.791

Subtotal	-0.815	-1.566	2.392
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Schedule: Not applicable.

Technical: Not applicable.

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
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D. OTHER PROGRAM FUNDING SUMMARY:	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
									0.000
									0.000
									0.000
									0.000
									0.000
									0.000

E. ACQUISITION STRATEGY: Not applicable.

EXHIBIT R-2a, RDT&E Project Justification

DATE: February 2006

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME						PROJECT NUMBER AND NAME		
RDT&E, N /	BA 6	0605863N, RDT&E SHIP AND AIRCRAFT SUPPORT						0569, RDT&E A/C SUPPORT	
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011		
0569 RDT&E A/C SUPPORT	35.012	27.713	30.654	31.224	35.955	32.851	34.511		
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. In FY 1998, AVDLR costs were reclassified as direct (customer-funded) costs, and a portion of the AVDLR funding to support customer programs were redistributed to customers. The remainder of AVDLR funding was retained in the account 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. Special Flight Test Instrumentation Pool (SFTIP) equipment, shared by programs to reduce or eliminate procurement lead times and reduce costs, is also supported.

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
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B. ACCOMPLISHMENTS / PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	.250			
RDT&E Articles Qty				

Providing support for Special Flight Test Instrumentation Pool (SFTIP) equipment, shared by programs to reduce or eliminate procurement lead times and costs to supported test programs, at NAVAIRWARCENACDIV Patuxent River, Maryland. The plans are to reduce this support in FY05 and eventually cease funding the effort beginning in FY06.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	.388	1.117	1.127	
RDT&E Articles Qty				

Providing In-Service Repair (ISR) funds for emergent repair requirements to aircraft performing mission critical test and evaluation projects. FY05-FY07 plans are to continue to support these requirements.

	FY 2005	FY 2006	FY 2007	
Accomplishments / Effort / Sub-total Cost	34.374	26.596	29.527	
RDT&E Articles Qty				

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 that in the RDT&E inventory. Continuing operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities. FY05-FY07 plans are to continue to support these requirements.

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
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C. PROGRAM CHANGE SUMMARY

Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	32.334	28.166	29.055
Current BES / President's Budget:	35.012	27.713	30.654
Total Adjustments	2.678	-0.453	1.599

Summary of Adjustments

Congressional Reductions	-0.173	-0.294	
Economic Assumptions		-0.128	0.377
Program Adjustments	2.851	-0.031	1.222
Subtotal	2.678	-0.453	1.599

Schedule: Not applicable.

Technical: Not applicable.

APPROPRIATION/BUDGET ACTIVITY RD&E, N /	BA 6	PROGRAM ELEMENT NUMBER AND NAME 0605863N, RD&E SHIP AND AIRCRAFT SUPPORT	PROJECT NUMBER AND NAME 0569, RD&E A/C SUPPORT
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D. OTHER PROGRAM FUNDING SUMMARY:	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
									0.000
									0.000
									0.000
									0.000
									0.000
									0.000

E. ACQUISITION STRATEGY: Not applicable.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605863N - RDT&E,N Ship and Aircraft Support			PROJECT NUMBER AND NAME 2924 - RDT&E Self Defense Test Ship			
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		10.903	7.029	8.461	8.844	9.169	9.344	9.575
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>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.</p> <p>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.</p>								

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: February 2006
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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605863N - RDT&E,N Ship and Aircraft Support	PROJECT NUMBER AND NAME 2924 - RDT&E Self Defense Test Ship
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B. Accomplishments/Planned Program

	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	10.903	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 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	7.029	0.000
RDT&E Articles Quantity			

Self Defense Test Ship (SDTS) will complete conversion efforts to EDD 964 (EX USS PAUL F FOSTER). NAVSURFWARCENDIV Port Hueneme, CA will plan, schedule and perform HM&E 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 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	8.461
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.

R-1 SHOPPING LIST - Item No. 153

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:	February 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-6	0605863N - RDT&E,N Ship and Aircraft Support	2924 - RDT&E Self Defense Test Ship	
C. PROGRAM CHANGE SUMMARY:			
Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	10.922	7.136	8.464
Current PB Budget:	10.903	7.029	8.461
Total Adjustments	-0.019	-0.107	-0.003
Summary of Adjustments			
Program adjustments	-0.019	0.000	-0.135
Rate Adjustments	0.000	0.000	0.132
8125 Revised Economic Assumption	0.000	-0.032	0.000
Congressional Reduction	0.000	-0.075	0.000
Subtotal	-0.019	-0.107	-0.003
Schedule:			
Not Applicable			
Technical:			
Not Applicable			

R-1 SHOPPING LIST - Item No. 153

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /					R-1 ITEM NOMENCLATURE 0605864N Test and Evaluation Support			
					BA-6			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	253.260	316.021	328.276	342.855	352.425	358.932	367.084	
0541 Atlantic Undersea Test and Evaluation Center (AUTEK)	44.667	50.883	53.303	55.045	56.288	57.748	59.137	
0566 NAVAIR Environmental Compliance	3.809	3.992	3.605	3.769	3.885	3.973	4.116	
0653 Naval Air Warfare Center Weapons Division	109.003	134.639	139.176	146.000	150.342	152.893	156.353	
0654 Naval Air Warfare Center Aircraft Division	77.923	96.792	100.364	105.465	108.507	110.371	112.884	
2921 Pacific Missile Range Facility	2.130	4.293	5.356	5.052	5.152	5.252	5.354	
2922 Maintenance and Repair	13.708	14.028	14.663	15.448	15.962	16.157	16.476	
3029 T&E Policy Support		0.610	0.653	0.693	0.724	0.754	0.787	
3154 Nanoose and Dabob Bay Ranges		10.784	11.156	11.383	11.565	11.784	11.977	
9094 Safety & Survivability Study of Protective Pumice Technology	2.020							
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>This program provides institutional maintenance and operations support for: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTEK), 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.</p>								

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2, RDT&E Budget Item Justification		DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENBA-6	R-1 ITEM NOMENCLATURE 0605864N Test and Evaluation Support		
B. PROGRAM CHANGE SUMMARY:			
Funding:	FY 2005	FY 2006	FY 2007
Previous President's Budget:	255.455	320.133	329.921
Current BES/President's Budget	253.260	316.021	328.276
Total Adjustments	-2.195	-4.112	-1.645
Summary of Adjustments			
Congressional Undistributed Reductions	-0.476	-3.430	
Congressional Increases	0.005	0.775	
Economic Assumptions		-1.457	5.708
Program Adjustments	-1.724	0.000	-7.353
Subtotal	-2.195	-4.112	-1.645
Schedule: Not Applicable			
Technical: Not Applicable			
C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable.			
D. ACQUISITION STRATEGY: Not Applicable.			

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	0605864N Test and Evaluation Support				PROJECT NUMBER AND NAME 0541 Atlantic Undersea Test and Evaluation Center (AUTEC)			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	44.667	50.883	53.303	55.045	56.288	57.748	59.137	
RDT&E Articles Qty	NOT APPLICABLE							
<p>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 (AUTEC) 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.</p> <p>The AUTEC Program Office is headquartered at Newport, RI. AUTEC'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. AUTEC aircraft make scheduled daily flights between West Palm Beach and Andros Town Airport.</p> <p>AUTEC 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.</p> <p>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.</p> <p>AUTEC 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.</p> <p>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 AUTEC 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.</p> <p>FY06 includes Hurricane Relief \$.775M.</p>								

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 0541 Atlantic Undersea Test and Evaluation Center (AUTEC)		
B. Accomplishments/Planned Program				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	33.817	40.033	42.453	
RDT&E Articles Qty				
<p>AUTEC 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 AUTEC 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.</p>				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	10.850	10.850	10.850	
RDT&E Articles Qty				
<p>Provide rental payments to the Bahamian government for use of land and ocean in the Bahamas.</p>				

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006													
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-6		PE 0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 0566 NAVAIR Environmental Compliance															
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011												
Project Cost		3.809	3.992	3.605	3.769	3.885	3.973	4.116												
RDT&E Articles Qty		NOT APPLICABLE																		
<p>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.</p> <p>B. Accomplishments/Planned Program</p> <table border="1"> <tr> <td></td> <td>FY 05</td> <td>FY 06</td> <td>FY 07</td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td>3.809</td> <td>3.992</td> <td>3.605</td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> </tr> </table>										FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	3.809	3.992	3.605	RDT&E Articles Qty			
	FY 05	FY 06	FY 07																	
Accomplishments/Effort/Subtotal Cost	3.809	3.992	3.605																	
RDT&E Articles Qty																				
<div style="border: 1px solid black; padding: 5px;"> <p>Continues hazardous waste disposal, solid waste disposal, natural & cultural resources programs, environmental permits, and environmental monitoring at AUTEC, Patuxent River, China Lake and San Nicholas Island. Continue the removal and disposal of Polychlorinated Biphenyls (PCBs) contaminated items at China Lake. Continued upgrade of an oily waste/waste oil (OW/WO) management/recycle facility at Patuxent River. Continued comprehensive air pollution meteorology studies at Point Mugu. Continue range contamination assessments at impact areas and lay down yards at China Lake.</p> </div>																				

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 0653 Naval Air Warfare Center Weapons Division		
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		109.003	134.639	139.176	146.000	150.342	152.893	156.353
RDT&E Articles Qty		NOT APPLICABLE						
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
<p>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.</p>								

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 0653 Naval Air Warfare Center Weapons Division		
B. Accomplishments/Planned Program				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	59.903	65.632	66.315	
RDT&E Articles Qty				
<p>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.</p>				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	5.394	18.858	20.337	
RDT&E Articles Qty				
<p>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.</p>				

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006															
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 0653 Naval Air Warfare Center Weapons Division															
B. Accomplishments/Planned Program																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">FY 05</td> <td style="text-align: center;">FY 06</td> <td style="text-align: center;">FY 07</td> <td></td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">7.980</td> <td style="text-align: center;">11.155</td> <td style="text-align: center;">11.632</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				FY 05	FY 06	FY 07		Accomplishments/Effort/Subtotal Cost	7.980	11.155	11.632		RDT&E Articles Qty				
	FY 05	FY 06	FY 07														
Accomplishments/Effort/Subtotal Cost	7.980	11.155	11.632														
RDT&E Articles Qty																	
<p>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.</p>																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">FY 05</td> <td style="text-align: center;">FY 06</td> <td style="text-align: center;">FY 07</td> <td></td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">2.708</td> <td style="text-align: center;">3.209</td> <td style="text-align: center;">3.406</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				FY 05	FY 06	FY 07		Accomplishments/Effort/Subtotal Cost	2.708	3.209	3.406		RDT&E Articles Qty				
	FY 05	FY 06	FY 07														
Accomplishments/Effort/Subtotal Cost	2.708	3.209	3.406														
RDT&E Articles Qty																	
<p>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.</p>																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">FY 05</td> <td style="text-align: center;">FY 06</td> <td style="text-align: center;">FY 07</td> <td></td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td style="text-align: center;">33.018</td> <td style="text-align: center;">35.785</td> <td style="text-align: center;">37.486</td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				FY 05	FY 06	FY 07		Accomplishments/Effort/Subtotal Cost	33.018	35.785	37.486		RDT&E Articles Qty				
	FY 05	FY 06	FY 07														
Accomplishments/Effort/Subtotal Cost	33.018	35.785	37.486														
RDT&E Articles Qty																	
<p>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.</p>																	

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 0654 Naval Air Warfare Center Aircraft Division			
COST (\$ in Millions)			FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost			77.923	96.792	100.364	105.465	108.507	110.371	112.884
RDT&E Articles Qty			NOT APPLICABLE						
<p>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.</p>									

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 0654 Naval Air Warfare Center Aircraft Division		
B. Accomplishments/Planned Program				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	19.980	24.013	24.726	
RDT&E Articles Qty				
<p>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.</p>				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	18.881	21.132	20.987	
RDT&E Articles Qty				
<p>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, communication, equipment maintenance, purchased service contracts, annual utilities and any costs necessary to manage and sustain MRTFB operations.</p>				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	4.272	4.061	4.348	
RDT&E Articles Qty				
<p>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.</p>				

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 0654 Naval Air Warfare Center Aircraft Division		
B. Accomplishments/Planned Program				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	1.074	1.424	1.480	
RDT&E Articles Qty				
<p>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.</p>				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	6.917	19.642	21.128	
RDT&E Articles Qty				
<p>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.</p>				
	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	26.799	26.520	27.695	
RDT&E Articles Qty				
<p>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.</p>				

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 2921 Pacific Missile Range Facility		
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		2.130	4.293	5.356	5.052	5.152	5.252	5.354
RDT&E Articles Qty		NOT APPLICABLE						
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
<p>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.</p>								
B. Accomplishments/Planned Program								
	FY 05	FY 06	FY 07					
Accomplishments/Effort/Subtotal Cost	2.130	4.293	5.356					
RDT&E Articles Qty								
<p>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.</p>								

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006													
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 2922 Maintenance and Repair														
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011												
Project Cost		13.708	14.028	14.663	15.448	15.962	16.157	16.476												
RDT&E Articles Qty		NOT APPLICABLE																		
<p>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.</p> <p>B. Accomplishments/Planned Program</p> <table border="1"> <tr> <td></td> <td>FY 05</td> <td>FY 06</td> <td>FY 07</td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td>13.708</td> <td>14.028</td> <td>14.663</td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> </tr> </table> <p>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.</p>										FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	13.708	14.028	14.663	RDT&E Articles Qty			
	FY 05	FY 06	FY 07																	
Accomplishments/Effort/Subtotal Cost	13.708	14.028	14.663																	
RDT&E Articles Qty																				

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006													
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 3029 T&E Policy Support														
COST (\$ in Millions)			FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010												
Project Cost				0.610	0.653	0.693	0.724	0.754												
RDT&E Articles Qty			NOT APPLICABLE																	
<p>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.</p> <p>B. Accomplishments/Planned Program</p> <table border="1"> <tr> <td></td> <td>FY 05</td> <td>FY 06</td> <td>FY 07</td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td></td> <td>0.610</td> <td>0.653</td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> </tr> </table> <p>Provides funding for labor, material, and travel in support of the Test and Evaluation (T&E) policy and requirements validation.</p>										FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost		0.610	0.653	RDT&E Articles Qty			
	FY 05	FY 06	FY 07																	
Accomplishments/Effort/Subtotal Cost		0.610	0.653																	
RDT&E Articles Qty																				

R-1 SHOPPING LIST - Item No. 154

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 3154 Nanoose and Dabob Bay Ranges			
COST (\$ in Millions)			FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost				10.784	11.156	11.383	11.565	11.784	11.977
RDT&E Articles Qty			NOT APPLICABLE						
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:									
<p>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.</p>									
B. Accomplishments/Planned Program									
			FY 05	FY 06	FY 07				
Accomplishments/Effort/Subtotal Cost				9.434	9.765				
RDT&E Articles Qty									
<p>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.</p>									
			FY 05	FY 06	FY 07				
Accomplishments/Effort/Subtotal Cost				1.350	1.391				
RDT&E Articles Qty									
<p>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.</p>									

R-1 SHOPPING LIST - Item No. 154

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 9094 Safety & Survivability Study of Protective Pumice Technology																	
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011															
Project Cost		2.020																					
RDT&E Articles Qty		NOT APPLICABLE																					
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Pumice is a chock-absorbing medium that can prevent sympathetic detonation of many of the ordnance devices used by the Department of Defense (DOD). The Pumice structure fill is composed of lightweight low density non lethal particles capable of absorbing blast energy and greatly reducing the lethal blast radius. The structure is capable of stopping vehicle parts and blast energy without providing a secondary threat from barrier disintegration. The FY05 funding will gather more empirical blast data and apply available computer modeling of blast effects. Information gathered will be applied to a threat analysis and corresponding Pumice barrier defense for a likely terrorist target.</p> <p>B. Accomplishments/Planned Program</p> <table border="1"> <tr> <td></td> <td>FY 05</td> <td>FY 06</td> <td>FY 07</td> <td></td> </tr> <tr> <td>Accomplishments/Effort/Subtotal Cost</td> <td>2.020</td> <td></td> <td></td> <td></td> </tr> <tr> <td>RDT&E Articles Qty</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Provide funds to gather more empirical blast data and apply available computer modeling of blast effects only to accelerate further development and testing of pumice walls. (Congressional Add)</p>										FY 05	FY 06	FY 07		Accomplishments/Effort/Subtotal Cost	2.020				RDT&E Articles Qty				
	FY 05	FY 06	FY 07																				
Accomplishments/Effort/Subtotal Cost	2.020																						
RDT&E Articles Qty																							

R-1 SHOPPING LIST - Item No. 154

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	12,904	12,908	11,532	11,948	12,213	12,481	12,756
0831 OPERATIONAL TEST & EVALUATION FORCE (OPTEVFOR) SUPPORT	12,435	12,425	11,065	11,463	11,718	11,975	12,239
2923 NAVY JT&E SUPPORT	469	483	467	485	495	506	517

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 U.S. Code Title 10 as well as Secretary of Defense (SECDEF) and Secretary of the Navy (SECNAV) directives to conduct independent operational testing and evaluation. This funding is used 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.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

B. PROGRAM CHANGE SUMMARY:

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2006 President's Budget Submission	12,917	13,101	12,150
Congressional Undistributed Reductions/Rescissions	-10	-193	0
Functional Realignment for OPNAV Program Support Costs	0	0	-235
FY 2005 SBIR	-6	0	0
Pay Raise Adjustment	0	0	109
Program Adjustments	3	0	-548
Rate Adjustments	0	0	56
FY 2007 President's Budget Submission	12,904	12,908	11,532

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 provides for core headquarters operations and support 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 operations and support for, and the day to day operations of, the staff/headquarters of Commander Operational Test and Evaluation Force (COMOPTEVFOR), located in 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 RDTEN vice OMN; hence, and unlike most RDTEN programs, these funds provide for O&S costs typical of

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2006

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

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 Chief of Naval Operations 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. Detailed command level performance metrics are under review; the following metrics relate directly to the funding provided and are applicable to current operations.

	FY05	FY06	FY07
Civpers End Strength	73	80	80
Civpers Work Years	75	76	76
Number of Tests Conducted	124	196	201
Number of Programs Supported	480	492	504

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605865N
PROJECT NUMBER: 0831

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY
PROJECT TITLE: OPERATIONAL TEST & EVALUATION FORCE (OPTEVFOR) SUPPORT

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
0831 OPERATIONAL TEST & EVALUATION FORCE (OPTEVFOR) SUPPORT	12,435	12,425	11,065	11,463	11,718	11,975	12,239

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides COMOPTEVFOR general support funding. This funding ensures COMOPTEVFOR compliance with U.S. Code Title 10 as well as SECDEF and SECNAV directives to conduct independent operational testing and evaluation. This funding is used 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 2005	FY 2006	FY 2007
OPTEVFOR SUPPORT	12,435	12,425	11,065

FY 2005 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 demonstrations, and advanced technology demonstrations.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605865N

PROJECT NUMBER: 0831

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

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

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

FY 2006 Plans:

- Continue to operationally test and evaluate CNO projects commensurate with authorized funding level.
- Continue to maintain level of effort associated with the DoD 5000-acquisition guidance, which requires increased COMOPTEVFOR involvement in early operational assessments, developmental testing, advanced concept technology demonstrations, and advanced technology demonstrations.
- Support the CNO's Sea Power 21 initiatives through continuous participation in Sea Trial and Sea Enterprise efforts.

FY 2007 Plans:

- Continue to operationally test and evaluate CNO projects commensurate with authorized funding level.
- Continue to maintain level of effort associated with the DoD 5000-acquisition guidance, which requires increased COMOPTEVFOR involvement in early operational assessments, developmental testing, advanced concept technology demonstrations, and advanced technology demonstrations.
- Support the CNO's Sea Power 21 initiatives through continuous participation in Sea Trial and Sea Enterprise efforts.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605865N
PROJECT NUMBER: 2923

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY
PROJECT TITLE: NAVY JT&E SUPPORT

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
2923 NAVY JT&E SUPPORT	469	483	467	485	495	506	517

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 of 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 2005	FY 2006	FY 2007
JOINT TEST & EVALUATION	469	483	467

FY 2005 Accomplishments:

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

FY 2006 Plans:

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

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FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2006

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605865N
PROJECT NUMBER: 2923

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY
PROJECT TITLE: NAVY JT&E SUPPORT

FY 2007 Plans:

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

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

CLASSIFICATION:									
EXHIBIT R-2, RDT&E Budget Item Justification							DATE:		February 2006
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE					
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /				0605866N Navy Space and Electronic Warfare (SEW) Support					
		BA-6							
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost		2.321	2.788	2.904	2.943	3.031	2.970	3.164	
0706 EMI Reduction and Radio Frequency Mgmt.		1.267	1.832	1.908	1.976	2.031	2.073	2.115	
0739 Navy C4I Top Level Requirements		1.054	0.956	0.996	0.967	1.000	0.897	1.049	
Quantity of RDT&E Articles									
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:									
Project 0706, Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management - Develops advanced technology to identify and reduce EMI sources from Navy systems and platforms.									
Project 0739, Navy C4I Top Level Requirements - This project provides analysis of both Fleet requirements and 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.									
(U) JUSTIFICATION FOR BUDGET ACTIVITY:									
This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.									

R-1 SHOPPING LIST - Item No. 156

CLASSIFICATION:								
EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605866N Navy Space and Electronic Warfare (SEW) Support				PROJECT NUMBER AND NAME 0706 EMI Reduction and Radio Frequency Management			
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		1.267	1.832	1.908	1.976	2.031	2.073	2.115
RDT&E Articles Qty								
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management. This project develops tools, processes, and algorithms to identify and reduce EMI sources for Navy systems and platforms. There are several efforts under development to identify and reduce EMI through proper use of the electromagnetic spectrum. Automated capabilities will be developed that reflect research into new operational fleet battle group frequency management processes. They reflect current fleet needs for a communications planning and frequency management tool used to plan communication links and analyze, allocate, and assign communication and radar frequencies for fleet operations. Research also includes EMI models for phased arrays, development of new analysis techniques and technologies to avoid EMI, and development of guidance to harmonize commercial EMI practices.</p>								

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006																						
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																						
(U) B. Accomplishments/Planned Program																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 10%;"></th> <th style="width: 15%;">FY 05</th> <th style="width: 15%;">FY 06</th> <th style="width: 15%;">FY 07</th> </tr> </thead> <tbody> <tr> <td>AESOP (Integrated CPM and EMCAP)</td> <td></td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">1.171</td> <td style="text-align: center;">1.200</td> </tr> <tr> <td>Civpers Pay raise rate</td> <td></td> <td></td> <td></td> <td style="text-align: center;">0.021</td> </tr> <tr> <td>RDT&E Articles Quantity</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							FY 05	FY 06	FY 07	AESOP (Integrated CPM and EMCAP)		0.000	1.171	1.200	Civpers Pay raise rate				0.021	RDT&E Articles Quantity				
		FY 05	FY 06	FY 07																				
AESOP (Integrated CPM and EMCAP)		0.000	1.171	1.200																				
Civpers Pay raise rate				0.021																				
RDT&E Articles Quantity																								
<div style="border: 1px solid black; padding: 5px;"> <p>(U) FY 2005 Developed interfaces for AESOP (Afloat Electromagnetic Spectrum Operations Program), and other automated tools to interface with evolving network protocols and to ensure currency for web based applications. Developed new algorithms for automated tools for new Navy C4ISR systems for both government and commercial communication systems being used by the Navy.</p> <p>(U) FY 2006 - FY2007 Develop interfaces for AESOP, and other automated tools to interface with evolving network protocols and to ensure currency of web based applications. Develop new algorithms for automated tools for new Navy C4ISR systems for both government and commercial communication systems being used by the Navy. Implement a set of web-based capabilities utilizing latest technologies (XML) and other data standards to optimize information exchange/usability. Institutionalize frequency management process for operational fleet by developing procedures that can be utilized by all Navy Strike Groups.</p> </div>																								
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<div style="border: 1px solid black; padding: 5px;"> <p>(U) FY 2005 Developed a multi band approach for current probe technology for multiple frequencies (HF, VHF, and UHF) that eliminates many of those legacy antennas and has the potential to drastically reduce shipboard interference effects.</p> <p>(U) FY 2006 - FY2007 Conduct research, development, testing, evaluation (RDTE), verification, validation, and assessment (VV&A) of afloat spectrum management software and automated tools for all U.S. Navy surface ships and shore commands. This includes the capability to provide commanders with increased common picture of spectrum situational awareness of friendly and hostile forces and transparently deconflict competing mission requirements for spectrum use. This capability will support transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations and will support the integration of sensors, weapons systems, and software communications architecture for the U. S. Navy.</p> </div>																								

R-1 SHOPPING LIST - Item No. 156

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006																	
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																	
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		FY 05	FY 06	FY 07															
EMC		0.000	0.000	0.000															
RDT&E Articles Quantity																			
<p>(U) FY 2005 Continued development of models to analyze antenna enhancements, and researched the interference for below decks emitters such as wireless LANs to the topside and below decks environments. Researched new technology efforts related to spectrum usage implementation of advanced capabilities that foster the implementation of cutting edge capabilities. Due to congested topside environment, developed recommended enhancements to antennas to reduce incidences of interference.</p>																			
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		FY 05	FY 06	FY 07															
EMC Criteria		0.000	0.000	0.000															
RDT&E Articles Quantity																			
<p>(U) FY 2005 Assisted battle group staffs and COCOMs in developing frequency management process improvements. Institutionalized frequency management process for operational fleet by developing procedures that can be utilized by all Navy battle groups.</p>																			

R-1 SHOPPING LIST - Item No. 156

CLASSIFICATION:

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

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2006		
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				
(U) D. OTHER PROGRAM FUNDING SUMMARY:									
<u>Line Item No. & Name</u>	<u>FY 2005</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>To Complete</u>	<u>Total Cost</u>
Not Applicable									
(U) E. ACQUISITION STRATEGY: *									
Not Applicable									
(U) F. 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		
* Not required for Budget Activities 1,2,3, and 6									

R-1 SHOPPING LIST - Item No. 156

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2006		
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 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
*Project Cost	1.054	0.956	0.996	0.967	1.000	0.897	1.049	
RDT&E Articles Qty								
<p>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.</p> <p>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.</p>								

R-1 SHOPPING LIST - Item No. 156

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006	
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 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.054	0.956	0.996
<p>FY 2005 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 2006 Plans:</p> <ul style="list-style-type: none"> - 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>FY 2007 Plans:</p> <ul style="list-style-type: none"> - Conduct analysis of C4ISR and network performance to identify areas of greatest transformational impact on C4ISR performance and newly emerging capabilities and implementation issues. 			

R-1 SHOPPING LIST - Item No. 156

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006	
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. PROGRAM CHANGE SUMMARY:			
Funding:	FY 2005	FY 2006	FY 2007
FY 2006 President's Budget Submission	1.066	0.970	1.096
FY 2007 President's Budget Submission	1.054	0.956	0.996
Total Adjustments	-0.012	-0.014	-0.100
Summary of Adjustments			
Congressional Undistributed	-0.001	-0.014	0.000
Execution Adjustment	-0.011	0.000	0.000
Functional Realignment for OPNAV Program Support Costs	0.000	0.000	-0.019
Rate Adjustments	0.000	0.000	0.010
Program Adjustments	0.000	0.000	-0.091
Subtotal	-0.012	-0.014	-0.100
Schedule:			
Not applicable.			
Technical:			
Not applicable.			

R-1 SHOPPING LIST - Item No. 156

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006
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
<p>D. OTHER PROGRAM FUNDING SUMMARY:</p> <p><u>Line Item No. & Name</u></p> <p>Not applicable.</p> <p>E. ACQUISITION STRATEGY: *</p> <p>Not Applicable.</p> <p>* Not required for Budget Activities 1,2,3, and 6</p>		

R-1 SHOPPING LIST - Item No. 156

Exhibit R-2, RDT&E Budget Item Justification									Date: February 2006	
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					
RDT&E,N/6					Space and Electronic Warfare Surveillance/ Reconnaissance Support					
Z1034 TAC SAT Recon Office					0605867N Link Crimson					
Z9607 Radiant Sunrise Dev, Integration Deployment					Line#: 155					
COST (\$ in Millions)		FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	Cost to Complete	Total Cost
Total PE Cost		12.976	12.827	20.073	28.855	27.309	24.167	21.113	CONT	CONT
Z1034		12.018	12.827	20.073	28.855	27.309	24.167	21.113	CONT	CONT
Z9607		0.958	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.983
Quantity of RDT&E Articles		N/A	N/A	N/A	N/A	N/A	N/A	N/A	-----	-----

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. Additional detailed information is available at a higher level of classification.

(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.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 2005 PLAN:

- (U) (\$0.9) Joint Exercises/Training
- (U) (\$0.8) Support to TBMD
- (U) (\$2.2) Support to Littoral/Expeditionary Warfare
- (U) (\$3.8) Precision Strike/Mission Planning
- (U) (\$3.1) Improved Data Dissemination/Exploitation/Maritime Awareness
- (U) (\$1.1) Sensor Awareness/Mission Planning
- (U) (\$1.1) Assured Communication/Navigation

2. (U) FY 2006 PLAN:

- (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

4. (U) FY 2007 PLAN:

- (U) (\$0.7) Joint Exercises/Training
- (U) (\$2.2) Support to Littoral/Expeditionary Warfare
- (U) (\$1.5) Precision Strike/Mission Planning
- (U) (\$9.8) Improved Data Dissemination/Exploitation/Maritime Awareness

- (U) (\$3.5) Global War on Terrorism
- (U) (\$0.9) Assured Communication/Navigation
- (U) (\$1.5) Information Operations

B. Program Change Summary:

	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>
PB07	12.976	12.827	20.073	28.855	27.309	24.167	21.113
PB06	<u>12.024</u>	<u>13.030</u>	<u>13.274</u>	<u>13.572</u>	<u>13.902</u>	<u>14.228</u>	<u>14.523</u>
Delta	.952	(.203)	6.799	15.283	13.407	9.939	6.590

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under Budget Activity 6 because it supports the operations and installations required for general research and development use.

C. Program Change Explanation:

Z1034: FY 2005 decrease is per congressional adjustment PL 108-447 DOE Transfer.

FY 2006-2007 changes are due to congressional adjustments.

FY 2008 – 2011 increase is per FORCENET – MDA Data Fusion/Analysis of Alternatives.

Z9607: FY 2005 increase is due to a congressional add for Radiant Sunrise development.

D. Other Program Funding Summary:

	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11
O&M,N	.413	.424	.435	.431	.446	.458	.470	.484

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2006

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)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	30.224	36.184	25.343	25.156	65.353	50.666	47.490
C0030 Marine Corps Studies and Analyses	6.584	6.004	6.162	6.391	6.554	6.765	6.892
C0033 Marine Corps Operational Testing & Evaluation Activity	3.472	3.525	3.673	3.790	3.873	3.980	4.057
C2330 Family of Incident Response Systems (FIRS)	8.817	7.351	3.554	2.533	12.111	12.470	12.709
C2930 Phase A Activities	7.591	10.904	11.954	12.442	42.815	27.451	23.832
C9608 Field Rapid Assay Bio Sys	2.410	0.0	0.0	0.0	0.0	0.0	0.0
C9609 Odor Signature Red Baselayer Garment Eval	0.386	0.0	0.0	0.0	0.0	0.0	0.0
C9610 USMC Cost of Readiness (COR) Initiatives	0.964	0.0	0.0	0.0	0.0	0.0	0.0
C9999 FY-06 Congressional Adds	0.0	8.400	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.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification

DATE:

February 2006

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT (PE) NAME AND NO.

RDT&E, N /BA-6 Management Support

0605873M Marine Corps Program Wide Support

B. PROGRAM CHANGE SUMMARY

	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>
(U) FY 2006 President's Budget:	31.024	28.224	32.651
(U) Adjustments from the President's Budget:			
(U) Congressional/OSD Program Reductions			
(U) Congressional Rescissions			
(U) Congressional Increases		8.400	
(U) Reprogrammings	-0.093		
(U) SBIR/STTR Transfer	-0.691		
(U) Program Adjustment	-0.016	-0.440	-7.308
(U) FY 2007 NAVCOMPT Budget:	30.224	36.184	25.343

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 2006				
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 C0030 Marine Corps Studies and Analyses				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		6.584	6.004	6.162	6.391	6.554	6.765	6.892
RDT&E Articles Qty								

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

This project funds the general studies and analysis portion of the Marine Corps Studies System (MCSS) and provides the analytical underpinnings and foundation for the MCSS. The project funds a variety of studies and analyses approved for execution in the annual Marine Corps Studies System Master Plan (MCSSMP) including mandated Mission Area Analyses (MAAs), Milestone A, and Pre-Milestone A (Conceptual) Analysis of Alternatives (AoAs), technology assessments, force structure analysis, weapons systems analysis, concept development and analysis, cost benefit analysis, training assessments, feasibility analysis, scenario development, and other analyses in support of the Program Objective Memorandum (POM) initiatives and the Marine Corps, as a whole.

The MCSS also supports the Marine Corps' acquisition system, the Expeditionary Force Development System (EFDS), and the Combat Development Process (CDP). The MAA process provides quantitative and qualitative information to decision makers for basing decisions effecting improvements in operational concepts, doctrine, force structure, education, training, and procurement. In addition, the MCSS provides analytical support to decision makers for the resolution of current problems and issues identified by the operating forces. The MCSS also makes use of the Marine Corps Research University to conduct studies and analysis projects in the areas of basic and applied research and Advanced Technology Development.

In FY05, 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.

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		4.390	5.099	5.261
RDT&E Articles Qty				

Completed the following FY05 efforts: Developing an Optimal Strategy for Implementing Future Theater-Level Contractor Logistics Support (CLS) studies, Joint Tactical Radio System (JTRS) Migration Strategy; Marine Expeditionary Brigade (MEB) 2015; Lightweight Prime Mover; Flight Deck Manning for MPF(F) Aviation Capable Ships; Transformation of C4 Training, Manpower; Structure to Support the 21st Century United States Marine Corps; Evaluation of USMC Operational Linguist Requirements & Resources; Ammunition Logistics Chain; Review of Deployment Mobility Growth; Joint Warfare System (JWARS) Support to Marine Corps Combat Development Center (MCCDC); Capability Requirements for Infantry Squad for Employment in Future Marine Corps Warfighting Concept of Expeditionary Maneuver Warfare and Across the Spectrum of Marine Air Ground Task Force (MAGTF) Operations; and Bulk Liquids Transportation Option studies.

Continue and complete the following FY05 efforts: Review of Future Aviation Basing; Marine Air Ground Task Force Logistics Planning Factors; Marine Aviation Logistics Squadron (MALS) Future; Command and Control (C2)of Logistics Operations from a Sea Base; Impact of Vehicle Hardening; Communication Requirements of the Force Service Support Group (FSSG) – Future; Convoy and Rear Area Protection; Reachback Intelligence Support to Expeditionary Operations; Expeditionary Information Operations; Joint Strike Fighter (JSF) Electronic Warfare (EW); Tactical Wheeled Vehicle; Rifle Squad Combat Capability Metrics; Casualty Rate (CASRATE) Study; 2015 and Beyond Marine Expeditionary Brigade Operations; and Assessment of Impact of Intra-Theater High-Speed Surface Connectors on Force Closure, Sustainment, and Support of Sea-Based Operations and Operational Analysis of the Marine Air Ground Task Force (MAGTF) Distribution Center studies.

Continue the following FY-06 efforts: Quality of Life in the Marine Corps; Marine Expeditionary Force (MEF) Intelligence, Surveillance and Reconnaissance (ISR) Gap Analysis; Table of Organization Study; Air Combat Element (ACE) Impact on Large Deck Amphibious Ships Study; and Seabasing Capabilities Study; Echelons of Maintenance; Mental Health Services Required for Global War on Terrorism (GWOT); Joint Analytic Data Management; Simulators for Joint Tactical Air Controller (JTAC) Training; Joint Light Tactical Vehicle/Combat Tactical Vehicle Post Independent Analysis; Ground Mobility Integration Initiative (GMII); Military Operations Research Workshop - Agent Based Models and Other Analytical Tools in Support of Stability Operations; Ground Mobility Study; Marine Expeditionary Force (MEF) Headquarters/Marine Headquarters Intelligence Table of Organization Analysis; Irregular Warfare Study; Marine Air Ground Task Force (MAGTF) Fires; Retention of Marines with Special Skills, Land Mine Counter Measures/IED Detection Requirements, and Optimization Analysis of Strategic Investment Scenarios (OASIS) studies.

FY 07 Initiate the high priority study and analysis projects approved in the Marine Corps Studies System Master Plan (MCSSMP).

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006		
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 C0030 Marine Corps Studies and Analyses		
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		0.833	0.905	0.901
RDT&E Articles Qty				
<p>In FY05 completed the following effort: Expeditionary Information Operations (IO) study.</p> <p>In FY06, continue and complete the following FY-05 efforts: and Joint Strike Fighter Electronic Warfare Studies</p> <p>Continue the following FY06 effort. Joint Strike Fighter Don/USMC Requirements Analysis, and Shallow Water/Very Shallow Water Planning and Reconnaissance Required for Ship to Objective Maneuver (STOM) studies</p> <p>FY 07 Initiate the high priority study and analysis projects approved in the Marine Corps Studies System Master Plan (MCSSMP).</p>				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		1.361	0.000	0.000
RDT&E Articles Qty				
Provide Corrosion Control Program Support.				
(U) Total \$		6.584	6.004	6.162
(U) PROJECT CHANGE SUMMARY		FY2005	FY2006	FY2007
(U) FY 2006 President's Budget:		7.215	6.096	6.133
(U) Adjustments from the President's Budget:				
(U) Congressional Program Reductions				
(U) Congressional Rescissions				
(U) Congressional Increases				
(U) Reprogrammings		-0.454		
(U) SBIR/STTR Transfer		-0.173		
(U) Minor Affordability Adjustment		-0.004	-0.092	0.029
(U) FY 2007 NAVCOMPT		6.584	6.004	6.162
(U) 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: PE 0605154N (Center for Naval Analyses (CNA), Project C0031 (Marine Corps Operations Analyses Group)				
(U) D. ACQUISITION STRATEGY: Not Required.				
(U) E. MAJOR PERFORMERS: Indefinite Delivery Indefinite Quantity contracts as follows:				
FY05 - FY06	Decision Engineering Associates LLC, Woodbridge, VA for Logistics Analytical, and Support Services. Mar 02.			
FY05 - FY06	Computing Technologies Inc. (CoTs) Fairfax, VA for analytical and support services. Jan 04.			
FY05	Northrop Grumman Mission Systems (NGMS), Fairfax, VA for Military Modeling, Simulation, Analytical, and Support Services. Nov 01.			
FY05	Marine Corps Research University at Pennsylvania State University, State College, PA for analytical and support services. May 02.			
FY05 - FY09	Acedamia Analytical Support Services Contract. Sep 05.			
FY06 - FY10	New Professional Services Support Contract to be Awarded.			
FY06 - FY10	New Military Modeling, Simulation, Analytical, and Support Services Contract to be Awarded.			
FY06 - FY10	New Logistics Modeling, Simulation, Analytical, and Support Services Contract to be Awarded.			
(U) SCHEDULE PROFILE: Not Applicable				

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EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2006				
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME		PROJECT NUMBER AND NAME				
RDT&E, N /BA-6 Management Support		0605873M Marine Corps Program Wide Support		C0033 Marine Corps Operational Testing & Evaluation Activity				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		3.472	3.525	3.673	3.790	3.873	3.980	4.057
RDT&E Articles Qty								

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

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 at decision point. MCOTEA must ensure that the Marines in the Operating Forces receive the very best possible equipment and support. MCOTEA must ensure each system proposed for acquisition is tested adequately, evaluated objectively and reported independently.

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		0.657	0.332	0.317
RDT&E Articles Qty				
MCOTEA: Provide for organizational support and utilities.				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		2.615	3.010	3.144
RDT&E Articles Qty				
MCOTEA: Provide for organizational salaries.				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		0.200	0.183	0.212
RDT&E Articles Qty				
MCOTEA: Provide organizational support, utilities, and salaries for the New Automation Information Systems (AIS) test branch.				

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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 Operational Testing & Evaluation Activity

(U) Total \$	3.472	3.525	3.673
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(U) PROJECT CHANGE SUMMARY:

	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>
(U) FY 2006 President's Budget:	2.675	3.578	3.656
(U) Adjustments from the President's Budget:			
(U) Congressional/OSD Program Reductions			
(U) Congressional Rescissions			
(U) Congressional Increases			
(U) Reprogrammings	0.801		
(U) SBIR/STTR Transfer	-0.003		
(U) Minor Affordability Adjustment	-0.001	-0.053	0.017
(U) FY 2007 President's Budget:	3.472	3.525	3.673

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) SCHEDULE PROFILE: Not Applicable.

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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 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	8.817	7.351	3.554	2.533	12.111	12.470	12.709
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.

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST (\$ in Millions)	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.833	4.496	2.304
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 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.200	0.425	0.000
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 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.350	0.500	0.000
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.

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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)		
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		0.100	0.150	0.000
RDT&E Articles Qty				
FIRS: C4I Mission Area includes 1) technology assessments 2) field user evaluations 3) prototypes.				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		0.700	1.015	1.250
RDT&E Articles Qty				
FIRS: Force Protection Mission Area Includes the 1) transition of the Improved Level A Protective Ensemble developed in concert with 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 Technical Support Working Group (TSWG) program. Incorporates previous CBIRF RDT&E activities.				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		0.200	0.590	0.000
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 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		0.250	0.100	0.000
RDT&E Articles Qty				
FIRS: General Support Mission Area Includes 1) Development and demonstration of electronic warehouse for CBIRF unique COTS CBRNE response equipment using RFID tags 2) mobility and embarkation studies and assessments 3) field user evaluations.				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		0.000	0.075	0.000
RDT&E Articles Qty				
FIRS:Consequence Management Advanced Concept Technology Demonstration (ACTD). This program line represents the MC buy-in to a proposed Joint Service ACTD in FY07. CM technologies will be demonstrated for CBIRF, National Guard WMD Civil Support Teams, Coast Guard Strike Teams, Navy Forward Deployed Preventive Medicine Units (FDPMU) and the Army Technical Escort Unit / Guardian Brigade.				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		1.641	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 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		2.508	0.000	0.000
RDT&E Articles Qty				

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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)		
Warefare Logistics Testbed: Integrated the latest planning technologies into individual, operationally focused, Web enabled planning solutions for assessment in operational environments.				
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost		2.035	0.000	0.000
RDT&E Articles Qty				
CB Warfare Agent Detector Chip : Development of chem/bio warfare agent chip detector.				
TOTAL		8.817	7.351	3.554

(U) PROJECT CHANGE SUMMARY:

	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>
(U) FY 2006 President's Budget:	9.175	7.463	10.966
(U) Adjustments from the President's Budget:			
(U) Congressional/OSD Program Reductions			
(U) Congressional Rescissions			
(U) Congressional Increases			
(U) Reprogrammings	-0.120		
(U) SBIR/STTR Transfer	-0.233		
(U) Minor Affordability Adjustment	-0.005	-0.112	-7.412
(U) FY 2007 OSD Budget:	8.817	7.351	3.554

CHANGE SUMMARY EXPLANATION:

- (U) Funding: Change in funding in FY07 represents reprioritizing of efforts within the USMC.
- (U) Schedule: Not Applicable.
- (U) Technical: Not Applicable.

(U) C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY2008</u>	<u>FY2009</u>	<u>FY2010</u>	<u>FY2011</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) PMC Line (BLI# 652100) FIRS	2.318								
Family of Incident Response Systems									
(U) PMC Line (BLI# 667000)		3.129	1.475	1.896	7.215	5.818	7.617	Cont	Cont
Items Under \$5 Million									

- (U) Related RDT&E:** Not Applicable.
- (U) D. ACQUISITION STRATEGY:** Not Required.
- (U) D. SCHEDULE PROFILE:** Not Applicable.

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EXHIBIT R-2a, RDT&E Project Justification				DATE: February 2006				
APPROPRIATION/BUDGET ACTIVITY RDT&E, N /BA-6 Management Support		PROGRAM ELEMENT NUMBER AND NAME 0605873M Marine Corps Program Wide Support			C2930 Marine Corps Phase A Activities			
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY10	FY11
Project Cost		7.591	10.904	11.954	12.442	42.815	27.451	23.832
RDT&E Articles Qty								
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
<p>Pre-Phase A Activities fund assessment, survey, and planning activities in support of the requirements generation system to mature, limit, clarify and define requirements before competition for resources in the Program Object Memorandum (POM) process and transition to acquisition management. This effort will complement the currently funded Marine Corps Systems Command (MCSC) Phase A Activities line by providing funds 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 Need Statement (UNS) process, (5) baselining 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.</p> <p>Marine Corps Combat Development Command (MCCDC) averages approximately 62 UNS requests per year addressing new requirements, of which approximately 12% 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.</p> <p>Pre-phase A Activities would 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.</p> <p>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 (COMMARCORSYSCOM) 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 are not limited to Market Surveys, Business 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.</p>								

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APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT NUMBER AND NAME

C2930 Marine Corps Phase A Activities

RDT&E, N /BA-6 Management Support

0605873M Marine Corps Program Wide Support

MAGTF Expeditionary Family of Fighting Vehicles (MEFFV): JROC Decision Memorandum 038-04 directed the Army and Marine Corps to develop the Army's Future Combat Systems (FCS) as a joint program. The MAGTF Expeditionary Family of Fighting Vehicles (MEFFV) program is the joint program mechanism for the USMC. Under the MEFFV program, as directed by the MROC 45-2005 dtd 1 Jul 05, covers the following 3 areas, in order of MROC directed priority; (1) Interoperability and integration of the USMC and Army Future Combat Systems (FCS) networks; (2) Leveraging Army FCS spin-outs/technologies for USMC use; and (3) Future combat vehicle capabilities. The MEFFV will leverage investments by the Army's Future Combat Systems to enhance the MAGTF effectiveness through increased 1) tactical flexibility, 2) operational reach and 3) joint and multinational enabling; three of the five Enabling Capability Goals of the EMW Capability List. The program is specifically designed to implement the Marine FCS Engagement Strategy that enhances current Marine Programs of Record by integrating FCS components into the MAGTF that are suitable for combat operations within operational concept of Expeditionary Maneuver Warfare (EMW). The program 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

as USMC platforms reach their End of Service (EoS). The MEFFV Program will also develop an evolutionary increase in the capabilities of the light and heavy armor battalions of the MAGTF through technology insertions to the LAV and Tank fleet in the near term, and potential vehicle replacement as current vehicle fleets age, in support of USMC 2015-2020 Ground Mobility initiatives. To satisfy the requirements of the 21st Century Marine Warfighters, the Deputy Commandant for Combat Development is leading the MEFFV effort to conduct Joint Capability Integration and Development System analysis to establish a pre-systems acquisition framework specifically tailored to assess technologies for transition to the MAGTF. The Combat Development Directorate Expeditionary Force Development Center (EFDC) uses successful operational concepts from services and joint experimentation to guide technologies funded by the Army's Future Combat Systems (FCS) Program, supplemented by the Office of Naval Research (ONR) and other agencies for MEFFV application. During the timeframe (2006-2013) MEFFV efforts are directed at capability refinement and integration, DOTMLPF analysis of multiple concepts, market research, analysis of alternatives, modeling and simulation, technology objectives, continued development of Initial Capabilities Documents (ICDs) and Capabilities Development Documents supporting Spin Out technology transitions. Initial

(U) ACCOMPLISHMENTS/PLANNED PROGRAM:

COST (\$ in Millions)	FY 2005	FY06	FY07
Accomplishment/Effort Subtotal Cost	2.044	2.572	2.616
RDT&E Articles Qty			
Initiate and complete high priority Milestone 0/Phase A activities for Market Surveys and associated Business Case Analysis for the following programs: MEFFV, Multi-Level Security (MLS) Systems, and Autonomic Logistics. Initiate and complete Requirements Study for the Ship-to-Objective Maneuver (STOM) Bridge. Initiate and complete Integration Study for Mobile Battery Chargers and Marine Corps Enterprise IT Services. Initiate and complete Trade-Off Studies for Electronic Maintenance Support System (EMSS), Light Weight Prime Mover (LWPM) and Mountain/ Cold Weather Clothing and Equipment. Conduct the high priority Analysis and Life Cycle Cost Estimate projects approved in the current FY Nomination for Phase A Activities and initiate new Business Case Analyses/Market surveys and associated Acquisition Strategies.			
COST (\$ in Millions)	FY 2005	FY06	FY07
Accomplishment/Effort Subtotal Cost	2.030	3.913	4.031
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. MAGTF Expeditionary Family of Fighting Vehicles Concept Development. Radio Migration Study. Systematically improving 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; also supporting tools 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 2005	FY06	FY07
Accomplishment/Effort Subtotal Cost	1.407	2.151	2.314
RDT&E Articles Qty			
C4I Interoperability/Integration: Engagement with the FCS program is critical to ensuring interoperability and leveraging combat enhancing spin-out products for Marine Corps use. The program achieves interoperability/integration into future C4I networks by engagement with the FCS program to refine expected outcomes and operating methods. This will be implemented through joint Integrated Process Teams, experimentation, testing, and requirements coordination.			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.433	0.852	0.901
RDT&E Articles Qty			
FCS Spin-outs/Technologies: Engagement with FCS also affords the Marine Corps the opportunity to leverage and influence products from the FCS spin-out development method with will provide materiel enhancements to the GCE commander in many cases long before new manned ground vehicles are available. Spin-out products will include sensing and unmanned systems employable with current combat systems.			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	1.677	1.416	2.092
RDT&E Articles Qty			
Future Combat Vehicles: The Marine Air Ground Task Force Expeditionary Family of Fighting Vehicles (MEFFV) is an acquisition initiative designed to support joint operations conducting Expeditionary Maneuver Warfare (EMW). The MEFFV is envisioned as a replacement for the capabilities provided by the Marine Corps heavy and light armored forces: M1A1 tanks and the Light Armored Vehicle family. The program seeks to provide highly capable platforms that compliment the Expeditionary Fighting Vehicle (EFV) performing combat task across the spectrum of conflict.			

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EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2006		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME			
RDT&E, N /BA-6 Management Support	0605873M Marine Corps Program Wide Support			C2930 Marine Corps Phase A Activities
(U) Total \$		7.591	10.904	11.954
(U) PROJECT CHANGE SUMMARY:				
	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>	
(U) FY 2006 President's Budget:	8.100	11.087	11.896	
(U) Adjustments from the President's Budget:				
(U) Congressional/OSD Program Reductions				
(U) Congressional Rescissions				
(U) Congressional Increases				
(U) Reprogrammings	-0.321			
(U) SBIR/STTR Transfer	-0.184			
(U) Minor Affordability Adjustment	-0.004	-0.183	0.058	
(U) FY 2007 President's Budget:	7.591	10.904	11.954	
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.				

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EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2006			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME			
RDT&E, N/BA-6 RDTE Management Support		0605873M MC Program Wide Support			C9999 FY06 Congressional Adds			
COST (\$ in Millions)		FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY2010	FY2011
Project Cost		0.000	8.400	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty								
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
<p>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.</p>								
(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:								
COST (\$ in Millions)		FY 2005		FY06		FY07		
Accomplishment/Effort Subtotal Cost		0.000		1.000		0.000		
RDT&E Articles Qty								
<p>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.</p>								
COST (\$ in Millions)		FY 2005		FY06		FY07		
Accomplishment/Effort Subtotal Cost		0.000		1.300		0.000		
RDT&E Articles Qty								
<p>Chem/Bio Multi Sensor Analyzer/Det 2330C: 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.</p>								
COST (\$ in Millions)		FY 2005		FY06		FY07		
Accomplishment/Effort Subtotal Cost		0.000		1.500		0.000		
RDT&E Articles Qty								
<p>Corrosion Service Teams 9883N:</p>								
COST (\$ in Millions)		FY 2005		FY06		FY07		
Accomplishment/Effort Subtotal Cost		0.000		1.000		0.000		
RDT&E Articles Qty								
<p>Detect & Recovery of UXO, Bn Is, CLNC 9884N:</p>								
COST (\$ in Millions)		FY 2005		FY2006		FY2007		
Accomplishment/Effort Subtotal Cost		0.000		1.400		0.000		
RDT&E Articles Qty								
<p>MC Corrosion Center of Excellence 0030C:</p>								
COST (\$ in Millions)		FY 2005		FY2006		FY2007		
Accomplishment/Effort Subtotal Cost		0.000		2.200		0.000		
RDT&E Articles Qty								
<p>MC Operational Log Modernization 9885N:</p>								
(U) Total \$		0.000		8.400		0.000		

**UNCLASSIFIED
FY2007 PRESIDENTS BUDGET**

CLASSIFICATION:								
EXHIBIT R-2, RDT&E Budget Item Justification							DATE: FEB 2006	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /				BA-06	R-1 ITEM NOMENCLATURE 0305885N - Tactical Cryptologic Activities			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	0.000	0.000	1.004	1.508	2.011	2.514	2.011	
0037	0.000	0.000	1.004	1.508	2.011	2.514	2.011	
Quantity of RDT&E Articles								
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program 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 supports implementation of FORCEnet.</p>								

R-1 SHOPPING LIST - Item No. 159

**UNCLASSIFIED
FY2007 PRESIDENTS BUDGET**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: FEB 2006	
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 05	FY 06	FY 07	
JIIOR Management	0.000	0.000	1.004	
RDT&E Articles Quantity				
FY05 ACCOMPLISHMENTS: N/A				
FY06 PLAN: N/A				
FY07 PLAN: - 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. - Antenna Technology Development and Advances: To continue to meet changing environmental and technology requirements, propose that CNSG continue to invest in advanced antenna technology in partnership with NRL, CNO, ONI, DNR, Combatant Fleet Commanders, and National partners.				

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**UNCLASSIFIED
FY2007 PRESIDENTS BUDGET**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			FEB 2006
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-6	0305885N - Tactical Cryptologic Activities	0037	
(U) C. PROGRAM CHANGE SUMMARY:			
(U) Funding:	FY 2005	FY 2006	FY 2007
FY 06 President's Budget	0.000	0.000	0.000
FY 07 FMB Submit	0.000	0.000	1.004
Total Adjustments	0.000	0.000	1.004
Summary of Adjustments			
ELINT Transformation.			1.004
 (U) Schedule:			
Not Applicable			
 (U) Technical:			
Not Applicable			

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**UNCLASSIFIED
FY2007 PRESIDENTS BUDGET**

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: FEB 2006	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0305885N - Tactical Cryptologic Activities			PROJECT NUMBER AND NAME 0037		
(U) D. OTHER PROGRAM FUNDING SUMMARY:							
<u>Line Item No. & Name</u>	<u>FY 2005</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>
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							

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**UNCLASSIFIED
FY2007 PRESIDENTS BUDGET**

CLASSIFICATION:												
Exhibit R-3 Cost Analysis (page 1)										DATE: FEB 2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-06				PROGRAM ELEMENT 0305885N TACTICAL CYRPTOLOGIC ACTIVITIES				PROJECT NUMBER AND NAME PROJECT 0037				
Remarks: Funding will not be acquired until FY-07. Currently in the process of development for FY-07 execution.												

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CLASSIFICATION:							
EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February-2006	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /				R-1 ITEM NOMENCLATURE 0804758N - Joint Information Operations Integrated Test Range Infrastructure/JNTC			
				BA-6			
COST (\$ in Millions)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	0.000	18.149	5.202	5.202	5.302	5.412	5.512
3152 - Joint Integrated Information Operations Range (JIOR)	0.000	9.849	5.202	5.202	5.302	5.412	5.512
9999 - Congressional Adds	0.000	8.300	0.000	0.000	0.000	0.000	0.000
Quantity of RDT&E Articles							
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. The new program for 0804758N is 0804758D, under BA 6.							
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>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 FY07, 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>This project supports the FY 2003 DoD Information Operations (IO) roadmap.</p>							
(U) JUSTIFICATION FOR BUDGET ACTIVITY:							
This program is funded under RDT&E Management Support because it provides support to test range operations. All cost in direct support of JIOR test, training, weapon, and range integration will be funded by RDT&E BA-6							

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February-2006	
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 2005	FY 2006	FY07
FY 06 President's Budget	0.000	10.000	10.300
FY 07 President's Budget	0.000	18.149	5.202
Total Adjustments	0.000	8.149	-5.098
Summary of Adjustments			
Congressional Adds		8.300	
Congressional reduction		-0.105	
Sec 8125 Revised Economic Adjustments		-0.046	
Congressionally Directed Transfer of JFCOM to Defense Wide			-5.098
Total	0.000	8.149	-5.098
(U) Schedule:			
Not Applicable			
(U) Technical:			
Not Applicable			

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February-2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0804758N - Joint Information Operations Integrated Test Ran	PROJECT NUMBER AND NAME 3152 - Joint Integrated Information Operations Range (JIOR)/JNTC		
(U) B. Accomplishments/Planned Program				
	FY 05	FY 06	FY07	
JIIOR Management	0.000	1.085	0.000	
RDT&E Articles Quantity				
<p>FY06 PLAN: U. S. Joint Forces Command (USJFCOM) will develop the 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) and the continued range development and implementation.</p>				
	FY 05	FY 06	FY07	
JIIOR Network Architecture	0.000	4.594	0.000	
RDT&E Articles Quantity				
<p>FY06 PLAN: USJFCOM will implement a standing Information Operations network connecting high-use sites that supports quick creation of logical ranges for distributed events and permits secure, unrestricted communications and will demonstrate connectivity of initial ten (10) sites supporting IO as directed by FY 2004 Joint Planning Guidance (JPG) . Follow-on efforts will continue to expand range connectivity. FY 2004 JPG directs connectivity with a minimum of 20 sites by FY 2011.</p>				
	FY 05	FY 06	FY07	
JIIOR Technology Development and Modernization	0.000	3.100	0.000	
RDT&E Articles Quantity				
<p>FY06 PLAN: Support develop, test, field and integrate technology for modernization of DoD facilities required to support DoD wide computer network operations (CNO) and integrated CNO/Electronic Warfare (EW) tests, training, and exercises.</p>				
	FY 05	FY 06	FY07	
JIIOR Event Planning and Sustainment Support	0.000	1.070	0.000	
RDT&E Articles Quantity				
<p>FY06 PLAN: Support develop, test, field and integrate technology for modernization of DoD facilities required to support DoD wide computer network operations (CNO) and integrated CNO/Electronic Warfare (EW) tests, training, and exercises.</p>				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February-2006		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0804758N - Joint Information Operations Integrated Test Ra	PROJECT NUMBER AND NAME 3152 - Joint Integrated Information Operations Range (JIOR)/JNTC		
(U) B. Accomplishments/Planned Program				
	FY 05	FY 06	FY07	
Joint National Training Capability (JNTC)			5.202	
<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>				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February-2006						
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0804758N - Joint Information Operations Integrated Test Rang	PROJECT NUMBER AND NAME 3152 - Joint Integrated Information Operations Range (JIOR)/JNTC						
<p>(U) C. OTHER PROGRAM FUNDING SUMMARY:</p> <table border="1"> <thead> <tr> <th><u>Line Item No. & Name</u></th> <th><u>FY 2005</u></th> <th><u>FY 2006</u></th> </tr> </thead> <tbody> <tr> <td>Not Applicable</td> <td></td> <td></td> </tr> </tbody> </table> <p>(U) D. ACQUISITION STRATEGY: Not Applicable</p> <p>(U) E. MAJOR PERFORMERS: NONE</p>			<u>Line Item No. & Name</u>	<u>FY 2005</u>	<u>FY 2006</u>	Not Applicable		
<u>Line Item No. & Name</u>	<u>FY 2005</u>	<u>FY 2006</u>						
Not Applicable								

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CLASSIFICATION:												
Exhibit R-3 Cost Analysis (page 1)										DATE: February-2006		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-6			0804758N - Joint Information Operations Integrated Test Rang			3152 - Joint Integrated Information Operations Range (JIOR)						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Various	IO Ranges				3.317	Various			Continuing	Continuing	0.000
Ancillary Hardware Development	Various	IO Ranges				0.564	Various			Continuing	Continuing	0.000
Systems Engineering	Various	IO Ranges				1.230	Various			Continuing	Continuing	0.000
Licenses	Various	USJFCOM				0.098	Various			Continuing	Continuing	0.000
Eglin AFB I/O Range						7.300	03/06				7.300	0.000
Masking Shunt						1.000					1.000	0.000
Award Fees											0.000	0.000
Subtotal Product Development			0.000	0.000		13.509				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				0.200	Various				0.200	0.000
Software Development	Various	IO Ranges				1.800	Various			Continuing	Continuing	0.000
Training Development	Various	IO Ranges				0.400	Various			Continuing	Continuing	0.000
Integrated Logistics Support	Various	IO Ranges				0.120	Various			Continuing	Continuing	0.000
Configuration Management	Various	USJFCOM				0.080	Various			Continuing	Continuing	0.000
Event Planning	Various	USJFCOM				0.370	Various			Continuing	Continuing	0.000
Event Execution	Various	USJFCOM				0.620	Various			Continuing	Continuing	0.000
Subtotal Support			0.000	0.000		3.590				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.												

CLASSIFICATION:												
Exhibit R-3 Cost Analysis (page 2)										DATE: February-2006		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA-6			0804758N - Joint Information Operations Integrated Test Ran				3152 - Joint Integrated Information Operations Range (JIOR)					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
											0.000	0.000
											0.000	0.000
											0.000	0.000
											0.000	0.000
											0.000	0.000
Subtotal T&E			0.000	0.000		0.000		0.000			0.000	0.000
Remarks:												
Contractor Engineering Support	Various	USJFCOM				0.615	Various	5.202	Various	Continuing	Continuing	0.000
Government Engineering Support	Various	USJFCOM				0.360	Various			Continuing	Continuing	0.000
Program Management Support										0.000	0.000	0.000
Travel	Various	USJFCOM				0.075	Various			Continuing	Continuing	0.000
Subtotal Management			0.000	0.000		1.050		5.202		0.000	6.252	0.000
Remarks:												
Total Cost			0.000	0.000		18.149		5.202		Continuing	Continuing	0.000
Remarks:												

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February-2006		
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 05	FY 06	FY 07	
Eglin AFB I/O Range (9903)	0.000	7.300	0.000	
RDT&E Articles Quantity				
FY06 PLAN: Per Congressional action USJFCOM will support Eglin AFB Information Operation Test Range.				
	FY 05	FY 06	FY 07	
Masking Shunt (9902)	0.000	1.000	0.000	
RDT&E Articles Quantity				
FY06 PLAN: Per Congressional action USJFCOM will support Masking Shunt.				

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