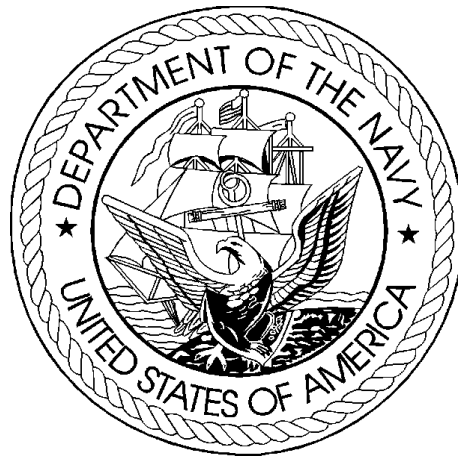


DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2006/FY 2007
BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES
FEBRUARY 2005

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

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 2006 RDT&E PROGRAM

EXHIBIT R-1

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

Date: FEBRUARY 2005

Line No --	Program Element Number -----	Item -----	Act ---	Thousands of Dollars			S E C -
				FY 2004 -----	FY 2005 -----	FY 2006 -----	
142	0604256N	Threat Simulator Development	06	26,320	23,287	23,918	U
143	0604258N	Target Systems Development	06	34,821	35,325	52,963	U
144	0604759N	Major T&E Investment	06	40,385	42,573	39,682	U
145	0605152N	Studies and Analysis Support - Navy	06	10,447	6,160	9,629	U
146	0605154N	Center for Naval Analyses	06	39,772	42,280	49,891	U
147	0605155N	Fleet Tactical Development	06	1,964	2,290	2,266	U
148	0605502N	Small Business Innovative Research	06	262,321			U
149	0605804N	Technical Information Services	06	26,916	26,144	714	U
150	0605853N	Management, Technical & International Support	06	29,992	30,692	44,847	U
151	0605856N	Strategic Technical Support	06	3,743	3,454	3,451	U
152	0605861N	RDT&E Science and Technology Management	06	74,133	61,717	63,508	U
153	0605862N	RDT&E Instrumentation Modernization	06	13,138	19,185	1,632	U
154	0605863N	RDT&E Ship and Aircraft Support	06	80,730	80,526	77,131	U
155	0605864N	Test and Evaluation Support	06	255,908	255,507	320,133	U
156	0605865N	Operational Test and Evaluation Capability	06	12,137	12,917	13,101	U
157	0605866N	Navy Space and Electronic Warfare (SEW) Support	06	3,082	2,907	2,829	U
158	0605867N	SEW Surveillance/Reconnaissance Support	06	10,656	13,007	13,030	U
159	0605873M	Marine Corps Program Wide Support	06	25,930	31,024	28,224	U
160	0804758N	Service Support to JFCOM, JNTC	06			10,000	U

UNCLASSIFIED

DEPARTMENT OF THE NAVY
 FY 2006 RDT&E PROGRAM

EXHIBIT R-1

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

Date: FEBRUARY 2005

Line No --	Program Element Number -----	Item -----	Act ---	Thousands of Dollars			S E C -
				FY 2004 -----	FY 2005 -----	FY 2006 -----	
161	0909999N	Financing for Cancelled Account Adjustments	06	8,127			U
		RDT&E Management Support		960,522	688,995	756,949	
		Total Research, Development, Test & Eval, Navy		960,522	688,995	756,949	

**Fiscal Year 2006 Budget Estimates
Budget Appendix Extract Language**

**RESEARCH, DEVELOPMENT, TEST & EVALUATION, NAVY
(RDTEN)**

For expenses necessary for basic and applied scientific research, development, test and evaluation, including maintenance, rehabilitation, lease, and operation of facilities and equipment, [\$17,043,812,000] *\$18,037,991,000*, to remain available for obligation until September 30, [2006] *2007: 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, 2005.*)

Program: *DoD Small Business Innovation
Research/Technology*

Agency: *Department of Defense--Military*

Bureau: *Research & Development*

Rating: *Results Not Demonstrated*

Program Type: *Research and Development*

Last Assessed: *1 year ago*

Key Performance Measures from Latest PART **Year** **Target** **Actual**

Long-term Measure: Revise the Commercialization Achievement Index (CAI) to eliminate counting of investments as commercialization no later than three years after receiving the first Phase II support. After that, count competitive sales receipts only.	2004	All	
Long-term Measure: Stop funding companies with more than 5 current or past Phase II awards in the last 5 years if the company is in the bottom quartile in the CAI.	2005	All	
Long-term Efficiency Measure: Emphasize commercialization so overall competitively awarded sales to the government (direct or indirect) from resulting products is at least equal to new R&D investment (Phases I-III), as a portfolio of prior 3-8 year investments (rolling average).	2005	TBD	
	2006	TBD	
	2007	TBD	
	2008	TBD	

Recommended Follow-up Actions

Status

Change the way companies' past performance is assessed to ensure that it more closely matches the intent of the law.	No action taken
Look for ways to budget explicitly for the program's administrative costs.	No action taken
Seek to get highly successful awardees to enter the mainstream of Defense contracting.	No action taken
Tighten eligibility requirements for accepting proposals from companies and individuals that repeatedly fail to sell resulting products in the marketplace.	No action taken

Update on Follow-up Actions:

The Department of Defense's program management is working with the Military Services and Defense Agencies to determine how to make the changes noted above. The Department is expected to reach agreement on how to implement the changes by the end of 2005.

Program Funding Level (in millions of dollars)

2004 Actual	2005 Estimate	2006 Estimate
1,100	1,133	1,500

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	26,320	23,287	23,918	24,457	25,299	26,082	26,764	27,429
R0672 EFFECTIVENESS OF NAVY E/W SYSTEMS (ENEWS)	13,295	12,367	12,396	12,611	12,983	13,427	13,759	14,068
W0602 ELECTRONIC WARFARE ENVIR SIMULATION (ECHO)	13,025	10,920	11,522	11,846	12,316	12,655	13,005	13,361

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 (DT&E/OT&E) environments to test Tri-Services EW systems and defensive tactics. These projects develop former Soviet and Free-World Anti-Air and Anti-Ship weapon systems simulators in accordance with the Services' requirements.

The R0672 Project, Effectiveness of Navy EW Systems (ENEWS), is a 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 (NRL), Washington, DC.

The W0602 Project, Electronic Warfare Environment Simulation (ECHO), directly supports the T&E resource requirements for all Naval Air EW development programs to include multi-spectral situational awareness and

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

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 Suite (IDECM) 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), 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.

UNCLASSIFIED

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

PROGRAM CHANGE SUMMARY:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2005 President's Budget Submission	27,692	23,866	24,190	24,585
FY 2006/2007 President's Budget Submission	26,320	23,287	23,918	24,457
Total Adjustments	-1372	-579	-272	-128
Cong Rescissions/Adjustments/Undist. Reductions	0	-573	0	0
Execution Adjustments	-1,100	0	0	0
Non-Pay Inflation Adjustments	0	0	17	33
Program Adjustments	0	-6	-384	-402
Rate Adjustments	0	0	95	241
SBIR Assessment	-272	0	0	0

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0604256N PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
 PROJECT NUMBER: R0672 PROJECT TITLE: EFFECTIVENESS OF NAVY E/W SYSTEMS (ENEWS)

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R0672 EFFECTIVENESS OF NAVY E/W SYSTEMS (ENEWS)	13,295	12,367	12,396	12,611	12,983	13,427	13,759	14,068

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 (NAVSEA), Operational Test and Evaluation Force (OPTEVFOR), Special Operations and other EW Research Development Test and Evaluation (RDT&E) agencies speaks to the overall importance of this project. The project provides support for EW system design Engineering Test (ET), Development Test (DT), Operational Test (OT), and the development of utilization tactics. Its quick reaction capabilities have had great impact on crisis situations such as the Lebanon and Libyan crises, Iran Harpoon threat, Persian Gulf crisis and Operation Desert Shield/Storm. 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 (SIMDIS) is another ENEWS modeling tool that was developed to support T&E and 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 the Department of Defense (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 (OSD) 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 (OT&E) and Follow-on Operations Test and Evaluation (FOT&E) support to the Surface Navy for all ship classes. DT, OT and FOT&E support includes AN/SLQ-32 Surface Electronic Warfare Improvement Program (SEWIP), R17.OX (NULKA), Rapid Anti-ship Integrated Defense System (RAIDS), all MK245 Giant tests, advanced Infrared (IR) decoys, decoy placement (Littoral), ship IR signature and Radar Cross Section (RCS) measurement of DDG-51, LPD-17, DD-21 and PC class ships, High Power Microwave (HPM) program, and other ship self-defense initiatives,

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY E/W SYSTEMS (ENEWS)

including test and evaluation of Future Naval Capability (FNC) process. In addition, ENEWS assets are regularly employed to test the effectiveness of North Atlantic Treaty Organization (NATO) ships' EW systems in joint allied exercises.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2004	FY 2005	FY 2006	FY 2007
SIMULATOR HARDWARE UPGRADES	754	724	70	80

Accomplishments/Plans:

FY 2004 - FY 2007: Provides simulator upgrades to Effectiveness of Navy Electronic Warfare (EW) System (ENEWS) flyable and shore based Infrared (IR) and Radio Frequency (RF) simulators. FY 2004 reflects Alternative Aircraft Implementation task which was a one year effort. This effort was driven by reduced availability of existing support aircraft. In FY 2005 funds for the Simulation Hardware Upgrade task were reduced by the level of effort budget reductions. These reductions resulted in modifying the task to eliminate the passive mode of the planned dual mode ALQ-170 Multi-Threat simulator upgrade. With the elimination of the passive mode, this task will be completed in FY 2005. Beginning in FY 2006 the focus of this task will be intelligence upgrades to existing hardware simulators with no new starts planned.

	FY 2004	FY 2005	FY 2006	FY 2007
SIMULATOR SOFTWARE UPGRADES	705	700	60	70

Accomplishments/Plans:

FY 2004 - FY 2007: Provides software upgrades to existing Effectiveness of Navy Electronic Warfare Systems (ENEWS) flyable and shore based simulations required due to either hardware upgrade of the computer or new intelligence information. This task includes upgrades to the ALQ-170 Multi-Threat simulator upgrade that completes in FY 2005 and minor VICTOR simulators. The focus of this task will be intelligence upgrades to existing simulators with no new starts planned in FY 2006 - FY 2007.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY E/W SYSTEMS (ENEWS)

	FY 2004	FY 2005	FY 2006	FY 2007
SIMULATOR CHARACTERIZATION	145	123	26	31

Accomplishments/Plans:

FY 2004 - FY 2007: Provides characterization of Infrared (IR) and Radio Frequency (RF) simulators as part of the periodic checks on simulator performance and to collect performance data to be used in validation reports. This includes the characterization of six simulators annually. Starting in FY 2006 most of the existing Effectiveness of Navy Electronic Warfare Systems (ENEWS) simulators will have been characterized and the older simulators will be examined for any changes to original characterization data.

	FY 2004	FY 2005	FY 2006	FY 2007
SIMULATOR MAINTENANCE	1,009	1,000	1,114	1,115

Accomplishments/Plans:

FY 2004 - FY 2007: Provides required simulator maintenance to ensure that the hardware simulators are available for customer testing. Preventative maintenance, troubleshooting and repairs are performed as required. This includes annual maintenance on 21 simulators. Beginning in FY 2006, additional simulators will transition from hardware upgrades and will be added to the simulator inventory.

	FY 2004	FY 2005	FY 2006	FY 2007
SIMULATOR CONTROL PANELS	184	202	257	254

Accomplishments/Plans:

FY 2004 - FY 2007: Supports the development and maintenance of all simulator control panels, including Infrared (IR) FOXTROT in a Standard Instrumentation Pod (SIP), IR VICTOR in a SIP, NOVEMBER III and NOVEMBER IV simulator control panels. The gradual increase in annual funding is required to build, maintain and upgrade additional control panels required to operate the increased inventory of simulators.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT TITLE: EFFECTIVENESS OF NAVY E/W SYSTEMS (ENEWS)

	FY 2004	FY 2005	FY 2006	FY 2007
LABORATORY FACILITIES	1,003	1,000	1,041	1,069

Accomplishments/Plans:

FY 2004 - FY 2007: Provides maintenance and upgrades to the (indoor laboratory) and outdoor land-based facilities required to perform testing of surface electronic warfare systems. In FY 2006 and FY 2007 an increase in maintenance and upgrades are required to support Surface Electronic Warfare Improvement Program (SEWIP) and NULKA testing.

	FY 2004	FY 2005	FY 2006	FY 2007
SIMULATION THREAT REPOSITORY	10	10	40	45

Accomplishments/Plans:

FY 2004 - FY 2007: Provides management, access and configuration control of the classified document and simulations library. In FY 2006 and FY 2007 the repository will be transitioning to advanced software management tools, incorporating more models and threats, environmental data and threat scenarios.

	FY 2004	FY 2005	FY 2006	FY 2007
SIMULATION INSTRUMENTATION	304	233	490	589

Accomplishments/Plans:

FY 2004 - FY 2007: Provides for the development, procurement, repair and maintenance of digital data collection and analysis systems. In FY 2006 and FY 2007 collection and analysis systems will be upgraded or replaced.

	FY 2004	FY 2005	FY 2006	FY 2007
SIMULATION VALIDATION	502	430	687	631

Accomplishments/Plans:

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY E/W SYSTEMS (ENEWS)

FY 2004 - FY 2007: Provides for the validation of hardware and software simulators and digital models. Develop reports that contain detailed descriptions of the threat simulators or digital models and the threat missile seekers. Simulator parameters are compared to actual threat parameters and differences are documented in the Validation Reports. Develop an average of four validation reports a year, increasing to six reports per year in FY 2006 and FY 2007.

	FY 2004	FY 2005	FY 2006	FY 2007
ELECTRONIC ATTACK/ELECTRONIC SUPPORT SIMULATIONS	498	545	576	594

Accomplishments/Plans:

FY 2004 - FY 2007: Provides improvements and intelligence upgrades to Anti-Ship Capable Missile (ASCM) Digital Models to include fly-out models, NULKA and other off-board decoys including chaff models. Also, supports maintenance of the Threat Database to provide threat intelligence for the development of Test and Evaluation digital scenarios. FY 2006 incorporates NULKA and FY 2007 incorporates off-board decoys into threat scenarios.

	FY 2004	FY 2005	FY 2006	FY 2007
PROGRAM MANAGEMENT	481	400	335	433

Accomplishments/Plans:

FY 2004 - FY 2007: Provides technical management functions in support of the Effectiveness of Navy Electronic Warfare Systems (ENEWS) project; engineering and technical support required for the overall efforts of ASCM Simulator and Digital Models development to meet Development Test/Operational Test (DT/OT) testing requirements, development of detailed test resource requirements and providing an interface between N-912, ONR, and other ENEWS oversight activities. Also, provides technical leadership to the Navy Surface Anti-Ship Cruise Missile Threat Simulator Validation Working Group (SVWG).

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: EFFECTIVENESS OF NAVY E/W SYSTEMS (ENEWS)

	FY 2004	FY 2005	FY 2006	FY 2007
CLASSIFIED PROGRAM	7,700	7,000	7,700	7,700

Accomplishments/Plans:

FY 2004 - FY 2007: Details are of a higher classification.

C. OTHER PROGRAM FUNDING SUMMARY: Not applicable.

D. ACQUISITION STRATEGY: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT NUMBER: W0602 PROJECT TITLE: ELECTRONIC WARFARE ENVIR SIMULATION (ECHO)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
W0602 ELECTRONIC WARFARE ENVIR SIMULATION (ECHO)	13,025	10,920	11,522	11,846	12,316	12,655	13,005	13,361

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 Suite (IDECM) 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), EA-6B Improved Capability Program (ICAP III), LR700 and the Low Band Transmitter (LBT). This project also supports Joint Service EW systems with initial operational capability in the mid to late 2000's.

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

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: W0602

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: ELECTRONIC WARFARE ENVIR SIMULATION (ECHO)

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2004	FY 2005	FY 2006	FY 2007
GROUND BASED IR STIMULATOR	1,127	0	0	0

Accomplishments/Plans:

FY 2004: Completed Ground Based IR Stimulator. Completed fabrication. Integrated into the Range and performed initial operational capabilities (IOC) testing.

	FY 2004	FY 2005	FY 2006	FY 2007
ADVANCED MAN PORTABLE AIR DEFENSE SYSTEMS	30	750	750	750

Accomplishments/Plans:

FY 2004 - FY 2007: Continue Advanced Man Portable Air Defense Systems. Procure additional manpad seekers, install and test at the Navy open air range.

	FY 2004	FY 2005	FY 2006	FY 2007
1V2 IR ALERT/RESPONSE SYSTEM	450	0	0	0

Accomplishments/Plans:

FY 2004: Completed 1V2 IR Alert/Response System. Completed installation of hardware and software. Conducted initial operational capabilities testing at the Navy open air range.

	FY 2004	FY 2005	FY 2006	FY 2007
SIMVAL	80	100	100	100

Accomplishments/Plans:

FY 2004 - FY 2007: Continue SIMEVAL (Simulator Evaluation). Conduct and evaluate measurements and document

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT NUMBER: W0602 PROJECT TITLE: ELECTRONIC WARFARE ENVIR SIMULATION (ECHO)

results to provide customers with confidence in simulator performance.

	FY 2004	FY 2005	FY 2006	FY 2007
RADAR AND WEAPON SIMULATOR	486	525	525	525

Accomplishments/Plans:

FY 2004 - FY 2007: Continue Radar and Weapon Simulator Updates. Perform intelligence based updates to threat radar and weapon system simulators.

	FY 2004	FY 2005	FY 2006	FY 2007
MISSILE/GUN	592	600	600	600

Accomplishments/Plans:

FY 2004 - FY 2007: Continue Missile and Gun System Simulator Updates. Perform intelligence based updates to threat missile and gun system software flyout models.

	FY 2004	FY 2005	FY 2006	FY 2007
REPROGRAMMABLE EARLY WARNING ACQUISITION RADAR	500	150	0	0

Accomplishments/Plans:

FY 2004 - FY 2005: Continued Reprogrammable Early Warning (EW) Acquisition (ACQ) Radar. Continued hardware and software development of laboratory EW/ACQ Threat Radar System. In FY 2005 complete Reprogrammable Early Warning (EW) Acquisition (ACQ) Radar and complete fabrication and perform IOC testing of laboratory EW/ACQ Threat Radar System.

	FY 2004	FY 2005	FY 2006	FY 2007
ADVANCED THREAT SIMULATOR	2,642	2,030	1,015	0

Accomplishments/Plans:

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: W0602

PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT

PROJECT TITLE: ELECTRONIC WARFARE ENVIR SIMULATION (ECHO)

FY 2004 - FY 2006: In FY 2004 initiated Advanced Threat Simulator and conducted design trade-off analysis and began hardware and software development. In FY 2005 continue Advanced Threat Simulator and continue hardware and software development. In FY 2006 complete Advanced Threat Simulator and complete development and perform IOC testing at both Air Combat Test and Evaluation Facility (ACETEF) and the Electronic Combat Systems Engineering Laboratory (ECSEL).

	FY 2004	FY 2005	FY 2006	FY 2007
1VM RF ALERT/RESPONSE	2,052	1,641	1,133	0

Accomplishments/Plans:

FY 2004 - FY 2006: In FY 2004 continued 1 vs M RF Alert Response and continued hardware and software development. In FY 2005 continue 1 vs M RF Alert Response and continue hardware and software development and begin installation and interface with 1V1 and 1V2 systems. In FY 2006 complete 1 vs M RF Alert Response and complete development and perform IOC testing at the Electronic Combat Range.

	FY 2004	FY 2005	FY 2006	FY 2007
VALIDATION	401	400	400	400

Accomplishments/Plans:

FY 2004 - FY 2007: Continue Validation of Simulators. Generate Validation Reports using Simulator Evaluation (SIMEVAL) results and forward for Director Test and Evaluation (DOT&E) approval.

	FY 2004	FY 2005	FY 2006	FY 2007
ECHO TECHNICAL & ENGINEERING SUPPORT	1,970	2,234	2,262	2,268

Accomplishments/Plans:

FY 2004 - FY 2007: Continue ECHO Technical & Engineering support. Provide program management, systems engineering and requirements support at all three Navy Electronic Warfare Test and Evaluation (EWT&E)

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N PROGRAM ELEMENT TITLE: THREAT SIMULATOR DEVELOPMENT
PROJECT NUMBER: W0602 PROJECT TITLE: ELECTRONIC WARFARE ENVIR SIMULATION (ECHO)

facilities.

	FY 2004	FY 2005	FY 2006	FY 2007
ADVANCED MULTIPLE-EMITTER SIMULATOR ADVANCED MODULATION	725	714	500	0

Accomplishments/Plans:

FY 2004 - FY 2006: In FY 2004 initiated Advanced Multiple-Emitter Simulator Advanced Modulation and developed design and interfaced specifications and began hardware and software development. In FY 2005 continue Advanced Multiple-Emitter Simulator Advanced Modulation and continue hardware and software development. In FY 2006, complete Advanced Multiple-Emitter Simulator Advanced Modulation and complete development, install and perform initial operational capabilities testing at the Navy laboratory facilities.

	FY 2004	FY 2005	FY 2006	FY 2007
MVM IR/RF ALERT/RESPONSE	1,970	1,276	2,250	1,700

Accomplishments/Plans:

FY 2004 - FY 2007: In FY 2004, initiated Many vs Many (MvM) Infrared (IR) Radio Frequency (RF) Alert/Response. Developed design and interfaced specifications. Began prototype hardware and software development. In FY 2005 through FY 2007, continue MvM RF Alert/Response and continue hardware and software development.

	FY 2004	FY 2005	FY 2006	FY 2007
AMES MMW UPGRADE	0	500	500	0

Accomplishments/Plans:

FY 2005 - FY 2006: In FY 2005 initiate Advanced Multiple-Emitter Simulator Milli-Meter Wave (MMW) Upgrade project. Initiate design and procurement of hardware. In FY 2006 complete Advanced Multiple-Emitter Simulator Milli-Meter Wave (MMW) Upgrade project. Complete development, install and perform initial operational capabilities testing at the Navy laboratory facilities.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROJECT NUMBER: W0602

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

	FY 2004	FY 2005	FY 2006	FY 2007
ADVANCED THREAT SIMULATOR (OPEN AIR)	0	0	1,087	2,500

Accomplishments/Plans:

FY 2006 - FY 2007: In FY 2006, initiate Advanced Threat Simulator project for the Electronic Combat Range. Initiate design and procurement of hardware/software development. In FY 2007, continue Advanced Threat Simulator project for the Electronic Combat Range. Continue hardware and software development.

	FY 2004	FY 2005	FY 2006	FY 2007
REACTIVE PLUME SIMULATOR	0	0	400	2,120

Accomplishments/Plans:

FY 2006 - FY 2007: In FY 2006, initiate the Reactive Plume Simulator. Initiate design. In FY 2007, continue Reactive Plume Simulator. Initiate software and hardware development.

	FY 2004	FY 2005	FY 2006	FY 2007
LONG RANGE THREAT SIMULATOR	0	0	0	883

Accomplishments/Plans:

FY 2007: Initiate Long Range Threat Simulator project for hardware in the loop lab and installed systems test facility. Initiate design of system.

C. OTHER PROGRAM FUNDING SUMMARY:

Related RDT&E: Not applicable.

Non-Navy Related RDT&E: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0604256N
PROJECT NUMBER: W0602

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

D. ACQUISITION STRATEGY:

Not applicable.

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE 0604258N/Target Systems Development			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	34.821	35.325	52.963	46.516	43.288	47.982	49.093	51.004
0609 Aerial Target Systems Development	25.184	23.439	26.546	30.588	23.337	15.008	12.904	9.140
0610 Wpn Sysys T&E Development/Procurement	8.627	10.934	23.408	14.713	18.683	30.655	34.013	40.481
0612 Surface Targets Development	0.855	0.952	3.009	1.215	1.268	2.319	2.176	1.383
3045 Terrier/SSST	0.155	0.000	0.000	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This program element funds the development and procurement of aerial and 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 and 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 (FO), surface targets for test and evaluation, surface towed targets, improved target control system, and an anti-radiation missile target. This program element also includes Vandal Extended Range testing and procurement of TA/AS Vector Scoring.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 Development			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	25.184	23.439	26.546	30.588	23.337	15.008	12.904	9.140
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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

- Subsonic Subscale Aerial Target (SSAT) development (including pre-planned product improvements to the existing recoverable, remote-controlled subsonic target - upgraded engine, fuselage, swept wing configuration). The SSAT 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 test, electronic countermeasures (jamming) evaluation, infrared measurement/test, radar cross section evaluation, decoy effectiveness, maneuver analysis, electronic warfare, warhead effectiveness and evaluation of fleet tactics, readiness and effectiveness.

UNCLASSIFIED

CLASSIFICATION:

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

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Continued Subsonic Subscale Aerial Target Dev.	13.387	11.395	6.123	1.747
RDT&E Articles Quantity				

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

	FY 04	FY 05	FY 06	FY 07
Continued Target Augmentation and Auxillary System	2.354	5.012	5.888	6.044
RDT&E Articles Quantity				

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

	FY 04	FY 05	FY 06	FY 07
Supersonic Sea Skimming Target (SSST)	9.443	7.032	14.535	22.797
RDT&E Articles Quantity				

Complete GQM-163A SSST Engineering and Manufacturing Development and initiate Block Upgrades/evolutionary development to keep pace with evolving threat and associated ORD requirements. Efforts include: (1)-Initiate development of salvo firing and multiple target control capabilities. (2)-Conduct alternative booster system study and initiate alternative booster system development. (3)-Continue improvement of system deficiencies identified during EMD. (4)-Conduct Aerial Target Launch Ship (ATLS) integration. (5)-Develop improved telemetry transmission capabilities. Continue SSST Threat-D study to reduce the risk of developing a cost-effective alternative to meet Threat D requirements and down-select the best candidate target system. This study advances the prospect of developing a low risk Threat D target system using either domestic or foreign acquisition approaches.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
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 Development			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY 04	FY 05	FY 06	FY 07
Previous President's Budget:		21.942	23.660	31.336	31.428
Current President's Budget		25.184	23.439	26.546	30.588
Total Adjustments		3.242	-0.221	-4.790	-0.840
Summary of Adjustments					
Congressional program reductions					
Congressional undistributed reductions			-0.216		
Congressional rescissions					
SBIR/STTR Transfer		-0.371			
Program Adjustments			-0.005	-5.088	-1.244
Economic Assumptions		-0.020		0.298	0.404
Reprogrammings		3.633			
Congressional increases					
Subtotal		3.242	-0.221	-4.790	-0.840
Schedule:					
Not Applicable.					
Technical:					
Not Applicable.					

UNCLASSIFIED

CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development	PROJECT NUMBER AND NAME 0609/Aerial Target Systems Development
--	--	---

D. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2004</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>
WPN 228000 Aerial Targets	74.282	72.405	101.882	83.045	80.156	81.961	83.815	85.710	Continuing	Continuing
WPN 612020 Initial Spares - Aerial Targets	0.832	0.768	4.039	3.879	4.534	0.710	0.490	0.490	Continuing	Continuing

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development				PROJECT NUMBER AND NAME 0610/Weapons Systems T&E Development Procurement			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	8.627	10.934	23.408	14.713	18.683	30.655	34.013	40.481
RDT&E Articles Qty	4	3	9	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, changes must be made to keep the targets as threat representative as possible. This is done in response to changes in the requirements of the developers of Naval weapons.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development	PROJECT NUMBER AND NAME 0610/Weapons Systems T&E Development Procurement

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Continue Full Scale Aerial Target support	8.579	9.199	19.507	10.684
RDT&E Articles Quantity	4	3	9	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 three F-4 aircraft into FSAT targets. The Navy began joint procurement of QF-4 T&E assets with USAF in FY03.

	FY 04	FY 05	FY 06	FY 07
Continue T&E TAAS Vector Scorer	0.048	1.250	1.750	2.250
RDT&E Articles Quantity				

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

	FY 04	FY 05	FY 06	FY 07
Support of follow-on FSAT development		0.485	2.151	1.779
RDT&E Articles Quantity				

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

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development	PROJECT NUMBER AND NAME 0610 Weapons Systems T&E Development Procurement

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 04	FY 05	FY 06	FY 07
Previous President's Budget:	11.547	11.049	9.238	10.361
Current President's Budget	8.627	10.934	23.408	14.713
Total Adjustments	-2.920	-0.115	14.170	4.352
Summary of Adjustments				
Congressional program reductions				
Congressional undistributed reductions		-0.112		
Congressional rescissions				
SBIR/STTR Transfer	-0.088			
Program Adjustments		-0.003	13.933	4.160
Economic Assumptions			0.237	0.192
Reprogrammings	-2.832			
Congressional increases				
Subtotal	-2.920	-0.115	14.170	4.352

Schedule:
Not Applicable.

Technical:
Not Applicable.

UNCLASSIFIED

CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development	PROJECT NUMBER AND NAME 0610/Weapons Systems T&E Development/Procurement
--	--	---

D. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2004</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>Complete</u>	<u>Cost</u>
WPN 228000 Aerial Targets	74.282	72.405	101.882	83.045	80.156	81.961	83.815	85.710	Continuing	Continuing
WPN 612020 Initial Spares - Aerial Targets	0.832	0.768	4.039	3.879	4.534	0.710	0.490	0.490	Continuing	Continuing

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.855	0.952	3.009	1.215	1.268	2.319	2.176	1.383
RDT&E Articles Qty	1	1	1	1	1	1	1	1

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.

R-1 SHOPPING LIST - Item No.

143

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
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 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.192	0.202	0.235	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 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.663	0.750	2.774	0.966
RDT&E Articles Quantity	1	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.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			PROGRAM ELEMENT NUMBER AND NAME 0604258N/Target Systems Development				PROJECT NUMBER AND NAME 0612/Surface Targets Development			
C. PROGRAM CHANGE SUMMARY:										
Funding:		FY 2004	FY2005	FY 2006	FY2007					
Previous President's Budget: (FY05 Pres Controls)		0.855	0.968	0.990	1.190					
Current President's Budget: (FY06 Pres Controls)		0.855	0.952	3.009	1.215					
Total Adjustments		0.000	-0.016	2.019	0.025					
Summary of Adjustments										
Congressional Reductions			-0.016							
Program Adjustments				2.019	0.025					
Subtotal			-0.016	2.019	0.025					
Schedule:										
Not applicable										
Technical:										
Not applicable										
D. OTHER PROGRAM FUNDING SUMMARY:										
	<u>FY 2004</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>
OPN Line 545500 ASW Range Spt Equipment	10.171	7.131	7.232	7.248	7.454	7.607	8.107	8.278		63.228
E. ACQUISITION STRATEGY:										
Not applicable										

R-1 SHOPPING LIST - Item No.143

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0604258N TARGET SYSTEMS DEVELOPMENT (TSD)			PROJECT NUMBER AND NAME 3045 Terrier/SSST			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.155	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project funds the Terrier Supersonic Sea Skimming Target (SSST) development to provide both a low-fidelity and a moderate-fidelity Terrier Missile Target (TMT) for Fleet training against a supersonic sea skimming threat. Major efforts involve integrating a Flight Termination System (FTS), running 6-DOF simulations, recertifying rocket motors, modifying the launch control system, modifying the initialization code, and the build up and firing of rounds.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N TARGET SYSTEMS DEVELOPMENT (TSD)	PROJECT NUMBER AND NAME 3045 Terrier/SSST		
B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.155			
RDT&E Articles Quantity				
<p>Efforts include: Integration of a Flight Termination System (FTS), 6-DOF simulations, rocket motors recertification, and modification of the launch control system and the initializer for the low-fidelity Terrier SSST configuration.</p>				

R-1 SHOPPING LIST - Item No.

143

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0604258N TARGET SYSTEMS DEVELOPMENT (TSD)	PROJECT NUMBER AND NAME 3045 Terrier/SSST			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget: (FY05 Pres Controls)		2.875	0.000	0.000	0.000
Current President's Budget: (FY06 Pres Controls)		0.155	0.000	0.000	0.000
Total Adjustments		-2.720	0.000	0.000	0.000
Summary of Adjustments					
SBIR		-0.071			
Congressional Reductions					
Execution Realignment		-2.649			
Subtotal:		-2.720	0.000	0.000	0.000
D. OTHER PROGRAM FUNDING SUMMARY: Not Applicable					
E. ACQUISITION STRATEGY: * Not Applicable					

R-1 SHOPPING LIST - Item No. 143

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE 0604759N Major T&E Investment			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	40.385	42.573	39.682	39.836	41.968	44.086	45.377	46.694
2195 T&E Investment	40.385	40.518	39.682	39.836	41.968	44.086	45.377	46.694
9605 Adapting Fleet Support and Readiness Training	0.000	2.055	0.000	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project improves visibility 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 support for the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTEC), Andros Island, Bahamas; the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point MUGU, CA and China Lake, CA; and the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD.

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011
Project Cost	40.385	40.518	39.682	39.836	41.968	44.086	45.377	46.694
RDT&E Articles Qty	Not Applicable							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This project improves visibility 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 support for the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTEC), Andros Island, Bahamas; the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point MUGU, CA and China Lake, CA; and the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD.

R-1 SHOPPING LIST - Item No. 144

UNCLASSIFIED

CLASSIFICATION:

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

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
---	--	--

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4.489	6.650	4.610	3.050
RDT&E Articles Quantity				

FY04 - NAVUNSEAWARCEN DET AUTEK. Continued Instrumentation Component Replacement (ICR) efforts. Completed the Underwater Range Data Communications Project. Continued Range Ware Improvement Project. Continued the Off-Board Advanced Systems Stimulator Project. Initiated AUTEK Lightning Protection project.

FY05 - NAVUNSEAWARCEN DET AUTEK. Continue Instrumentation Component Replacement (ICR) efforts. Continue Range Ware Improvement Project. Continue AUTEK Lightning Protection project. Complete Off-Board Advanced Systems Stimulator project.

FY06 - NAVUNSEAWARCEN DET AUTEK. Continue Instrumentation Component Replacement (ICR) efforts. Complete Range Ware Improvement Project. Complete AUTEK Lightning Protection project. Initiate AUTEK Local Area Network project. Initiate Weapons Range Repair project.

FY07 - NAVUNSEAWARCEN DET AUTEK. Continue Instrumentation Component Replacement (ICR) efforts. Complete AUTEK Local Area Network project. Complete Weapons Range Repair project. Initiate Signal Processor Replacement project.

R-1 SHOPPING LIST - Item No. 144

UNCLASSIFIED

CLASSIFICATION:

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

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	18.532	15.916	19.179	25.228
RDT&E Articles Quantity				

FY04 - NAVAIRWARCENWPNSDIV. Continued to modernize core instrumentation capability. Completed modernization of air traffic control radar with integration of new R-2508 surveillance radar. Completed development of capability to test and evaluate effects and performance of hypersonic penetrators. Completed replacement of remote van equipment, vintage tracking antennas and allowed multiple participant operations coverage at San Nicolas Island. Continued to modernize frequency monitoring capabilities at Electronic Combat Range, Land Range, and Sea Range. Completed replacement of obsolete data acquisition and electronic equipment at Skytop facility. Completed moving target launch capability/instrumentation from C130A to C130F. Completed upgrade of fifth metric radar electronic systems and control consoles and added moving target indicators, automatic calibration and computer controls of chart recorders at San Nicolas Island. Continued P-3/C-130 Instrumentation Replacement Project. Completed procurement and integration of Advanced Range Telemetry Program (ARTM) equipment. Continued upgrade Land, Sea, and ECR Range's video capabilities. Initiated procurement and integration of new voice system for the Sea Range. Initiated upgrade of target control pedestals. Initiated modernization of Land range communication infrastructure. Total includes a \$4.159 below threshold reprogramming for the USS Dolphin.

FY05 - NAVAIRWARCENWPNSDIV. Continue to modernize core instrumentation capability. Complete modernization of frequency monitoring capabilities at Electronic Combat Range, Land Range, and Sea Range. Initiate upgrade of sixth metric radar electronic systems and control consoles and add moving target indicators, automatic calibration and computer controls of chart recorders. Continue with P-3/C-130 Instrumentation Replacement Project. Complete upgrade of Land, Sea, and ECR Range's video capabilities. Complete procurement and integration of new voice system for the Sea Range. Continue upgrade of target control pedestals. Complete modernization of Land range communication infrastructure. Initiate Service Life Extension Program of fifth FPS-16 radar system. Initiate replacement of VHF, UHF, and HF radio transmitters at the ECR, Land, and Sea Ranges. Initiate the replacement of the mobile radio communications system in compliance with current FAA mandates.

FY06 - NAVAIRWARCENWPNSDIV. Continue to modernize core instrumentation capability. Continue upgrade of sixth metric radar electronic systems and control consoles and add moving target indicators, automatic calibration and computer controls of chart recorders. Continue with P-3/C-130 Instrumentation Replacement Project. Complete upgrade of target control pedestals. Complete Service Life Extension Program of fifth FPS-16 radar system. Complete replacement of VHF, UHF, and HF radio transmitters at the ECR, Land, and Sea Ranges. Complete the replacement of the mobile radio communications system in compliance with current FAA mandates. Initiate Range Timing & Data Re-Engineering.

FY07 - NAVAIRWARCENWPNSDIV. Continue to modernize core instrumentation capability. Continue with P-3/C-130 Instrumentation Replacement Project. Continue upgrade of sixth metric radar electronic systems and control consoles and add moving target indicators, automatic calibration and computer controls of chart recorders. Continue Range Timing & Data Re-Engineering. Initiate and complete Enhanced Flight Termination System (EFTS). Initiate Telemetry Antenna Systems Upgrades (LR & SR). Initiate Post Test Data Warehouse. Initiate Electronic Combat Range (ECR) Radar Upgrade. Initiate and complete ECR Telemetry Modernization. Initiate Digital Video Implementation.

UNCLASSIFIED

CLASSIFICATION:

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

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	17.364	17.952	15.893	11.558
RDT&E Articles Quantity				

FY04 - NAVAIRWARCENACDIV. Continued to modernize core instrumentation capability. Completed replacement of aging Telemetry acquisition and processing equipment. Continued integration of analog National Television Systems Committee (NTSC) video with digital systems based on industry and Advanced Television Systems Committee formats. Continued Advanced Radar Environment Stimulator (ARES). Continued upgrade of mechanical/machining capabilities. Continued a development of a High Cycle Fatigue (HCF) Test Capability. Continued upgrade for semi-automatic and video reader capabilities under the Next Generation Video Project. Initiated procurement and integration of communication and security equipment required to support operations within the Advanced Systems Integration Laboratory (ASIL) MILCON. Initiated modernization and upgrades to the existing radar cross section pedestals.

FY05 - NAVAIRWARCENACDIV. Continue to modernize core instrumentation capability. Complete integration of analog National Television Systems Committee (NTSC) video with digital systems based on industry and Advanced Television Systems Committee formats. Continue Advanced Radar Environment Stimulator (ARES). Complete upgrade of mechanical/machining capabilities. Complete development of a High Cycle Fatigue (HCF) Test Capability. Complete upgrade for semi-automatic and video reader capabilities under the Next Generation Video Project. Complete procurement and integration of communication and security equipment required to support operations within the ASIL MILCON. Continue modernization and upgrades to the existing radar cross section pedestals. Initiate procurement of fiber channel bus monitoring and stimulation capability. Initiate encryption/modernization of down range video capability. Initiate and complete voice communications system for Atlantic Test Range.

FY06 - NAVAIRWARCENACDIV. Continue to modernize core instrumentation capability. Complete Advanced Radar Environment Stimulator (ARES). Continue modernization and upgrades to the existing radar cross section pedestals. Complete procurement of fiber channel bus monitoring and stimulation capability. Complete encryption/modernization of down range video capability. Complete voice communications system for Land Range. Initiate Telemetry Acquisition Modernization. Initiate Comstron Modernization. Initiated Modern Tempest Test System. Initiate Solid State Recorder.

FY07 - NAVAIRWARCENACDIV. Continue to modernize core instrumentation capability. Complete modernization and upgrades to the existing radar cross section pedestals. Continue Telemetry Acquisition Modernization. Continue Comstron Modernization. Complete Modern Tempest Test System. Complete Solid State Recorder. Initiate Communications Facility Radio Systems. Initiate Helicopter Transmission Test Facility (HTTF) Installation Envelop Expansion. Initiate Pax River Infra-red Signature Measurement (PRISM) Improvements. Initiate Electromagnetic Environmental Effects (E3) Test Equipment.

UNCLASSIFIED

CLASSIFICATION:

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

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
---	--	--

(U) C. PROGRAM CHANGE SUMMARY:

(U) Funding:	FY 04	FY 05	FY 06	FY 07
Previous President's Budget:	44.178	39.787	39.457	39.021
Current BES/President's Budget	40.385	40.518	39.682	39.836
Total Adjustments	-3.793	0.731	0.225	0.815
Summary of Adjustments				
Congressional undistributed reductions		-0.360		
Program Adjustments		-0.009	-0.054	-0.031
Economic Assumptions	-0.041		0.279	0.846
Reprogrammings	-3.752			
Congressional increases		1.100		
Subtotal	-3.793	0.731	0.225	0.815

(U) Schedule:
Not Applicable.

(U) Technical:
Not Applicable.

R-1 SHOPPING LIST - Item No. 144

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005				
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					
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2004</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>
<u>Related RDT&E:</u>										
(U) PE 0605759F: Test and Evaluation (Air Force)										
(U) PE 0605864N: Test and Evaluation (Navy)										
 E. ACQUISITION STRATEGY:										
Not Applicable.										

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011
Project Cost	0.000	2.055	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty	Not Applicable							

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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.

R-1 SHOPPING LIST - Item No. 144

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost		2.055		
RDT&E Articles Quantity				
Project will acquire and integrate a manpad simulator, blue force target replicas, portable emitter control, communication links and airspace management improvements.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
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			
(U) C. PROGRAM CHANGE SUMMARY:					
(U) Funding:		FY 04	FY 05	FY 06	FY 07
Previous President's Budget:		0.000	0.000	0.000	0.000
Current BES/President's Budget		0.000	2.055	0.000	0.000
Total Adjustments		0.000	2.055	0.000	0.000
Summary of Adjustments					
Congressional undistributed reductions			-0.044		
Program Adjustments			-0.001		
Congressional increases			2.100		
Subtotal		0.000	2.055	0.000	0.000
(U) Schedule:					
Not Applicable.					
(U) Technical:					
Not Applicable.					

R-1 SHOPPING LIST - Item No. 144

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005				
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					
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2004</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>
<u>Related RDT&E:</u>										
(U) PE 0605759F: Test and Evaluation (Air Force)										
(U) PE 0605864N: Test and Evaluation (Navy)										
 E. ACQUISITION STRATEGY:										
Not Applicable.										

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: FEBRUARY 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE 0605152N Studies and Analysis Support, Navy			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	10.447	6.160	9.629	2.712	10.298	3.277	11.130	4.057
0133 NATL ACAD SCI/STUD BRD	1.576	1.873	1.913	1.911	2.018	2.014	2.110	2.104
2092 NAVAL AVIATION STUDIES	3.783	3.999	7.421	0.504	7.978	0.956	8.707	1.633
2097 MANPOWER PERSONNEL & TRAINING	0.285	0.288	0.295	0.297	0.302	0.307	0.313	0.320
9410 FIRE RETARDANT FIBERS	0.961							
9411 FUTURE SIGINT REQMENTS/JOINT ACS PROG	3.842							

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: February 2005	
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 Science/Naval Studies Board			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	1.576	1.873	1.913	1.911	2.018	2.014	2.110	2.104
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
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 Science/Naval Studies Board

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.576	1.873	1.913	1.911
RDT&E Articles Quantity				

FY 2004 Accomplishments:

- Completed two reports from earlier years: Naval Forces' Defense Capabilities Against Chemical and Biological Warfare Threats; and, The Role of Experimentation in Building Future Naval Forces.
- 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. Continued performance on the two studies initiated in FY03.
- Initiated two new studies entitled 1)Sea Basing- Ensuring Joint Forces Access From the Sea and, 2)Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) for Future Naval Strike Groups. Initiated one new workshop entitled Naval Analytical Capabilities and Improving Capabilities Based Planning.

FY 2005 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 at the beginning of FY05.

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 at the beginning of 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 at the beginning of FY07.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
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 Science/Naval Studies Board			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY 04	FY 05	FY 06	FY 07
FY 2005 President's Budget		2.043	1.891	1.891	1.938
FY 2006/2007 President's Budget		1.576	1.873	1.913	1.911
Total Adjustments		-0.467	-0.018	0.022	-0.027
Summary of Adjustments					
Congressional undistributed reductions			-0.018		
SBIR/STTR Transfer		-0.041			
Program Adjustments				0.003	-0.052
Economic Assumptions				0.019	0.025
Reprogrammings		-0.426			
Subtotal		-0.467	-0.018	0.022	-0.027
Schedule:					
Not applicable					
Technical:					
Not applicable					

R-1 SHOPPING LIST - Item No. 145

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: FEBRUARY 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	3.783	3.999	7.421	0.504	7.978	0.956	8.707	1.633
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 (directly, by reprogramming, or through Program Executive Offices) by all sponsors within N6/N7.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: FEBRUARY 2005
---	----------------------------

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
---	---	---

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3.783	3.999	7.421	0.504
RDT&E Articles Quantity				

Naval Warfare Studies: Develop and deliver centrally-funded integrated "corporate" analysis of all warfighting capability requirements for all flag Warfare Sponsors of all divisions within N6/N7, supporting the development of Mission Capability Package and Integrated Strategic Capability Plan briefings to CNO and the shaping of resource-allocation decisions for the Sponsor Program Proposal. Conduct studies of FORCEnet C4ISR capabilities, technologies, and systems required to support and control effective and timely battlespace preparation and combat engagements. Conduct studies of offensive Sea Strike capabilities, technologies, and systems required to project decisive and precise combat power with conventional and unconventional strikes, offensive information operations, and Marine Corps maneuver forces. Conduct studies of defensive Sea Shield capabilities, technologies, and systems required below, on, and above the water to establish a secure air and maritime domain for establishment of the Sea Base, movement of joint forces into a theater of operations, and projection of Sea Strike combat power ashore. Conduct studies of Sea Base capabilities, technologies, and systems required to move naval and joint forces into a theater of operations and sustain their combat operations at sea and ashore. Conduct studies of the requirements for Navy ship and aircraft force structure size and capability.

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

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: FEBRUARY 2005		
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			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY 04	FY 05	FY 06	FY 07
FY 2005 President's Budget		0.289	0.000	0.000	0.000
FY 2006/2007 President's Budget		3.783	3.999	7.421	0.504
Total Adjustments		3.494	3.999	7.421	0.504
Summary of Adjustments					
SBIR/STTR Transfer		-0.007			
Program Adjustments			-0.001	7.273	0.307
Economic Assumptions				0.148	0.197
Reprogrammings		3.501	4.000		
Subtotal		3.494	3.999	7.421	0.504
Schedule:					
Not Applicable					
Technical:					
Not Applicable					

R-1 SHOPPING LIST - Item No. 145

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.285	0.288	0.295	0.297	0.302	0.307	0.313	0.320
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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

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

R-1 SHOPPIN LIST - Item No. 145

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification	DATE: FEBRUARY 2005
---	-------------------------------

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605152N Studies and Analysis Support - Navy	PROJECT NUMBER AND NAME 2097/Manpower, Personnel, and Training
---	---	---

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.285	0.288	0.295	0.297
RDT&E Articles Quantity				

(U) FY 2004 ACCOMPLISHMENTS:

- (U) (\$47K) Completed a study of the Non-Prior Service Accessions Trend/Impact on the Naval Reserve Force. Identified metrics and developed a simple model, allowing the analysis of different types of accession training programs or “boot camps”, with respect to overall Reserve Force Personnel and Training Readiness. Model will assist with analysis of future force shaping in regards to accession of various Non-Prior Service (NPS) populations (E-3 and below as compared to E4/5).
- (U) (\$60K) Analyzed Civilian Turnover within the DoN and developed a Retirement Projection Model/Tool. Examined the NAPPE and CIVFORS models to determine whether the continuous time-series approach used in these models is a better predictor of civilian turnover than models based on other techniques, such as traditional regression analysis. The analysis included an investigation into the possibility of adding additional parameters to the NAPPE model such as the unemployment rate and other variables external to DON.
- (U) (\$36K) Completed an analysis of Separation Pay Options. Analyzed the costs and benefits of various options for voluntarily separating members from service. Considered historical experience with VSI/SSB/TERA as well as involuntary separation pay. Based on the analysis, provided several options for a permanent, flexible tool for force shaping.
- (U) (\$56K) Completed a study of the Delayed Entry Program (DEP) Management. Designed and conducted research to investigate the “real reasons” that a DEPPER attrites and becomes another loss to the system coded as a Qualified Not-Enlisted (QNE) or Failed to Obligate (FTO). Research and analysis should assist in assessing individual recruiter’s ability to manage and/or lead DEP activities, fix responsibilities for DEP management at the zone, district, region and national level and evaluate alternative DEP management schemes.
- (U) (\$55K) Developed a Graduate Education Quota Model to identify resident graduate education quotas by subspecialty area and community. The model will allow communities to efficiently allocate officer inventory based upon graduate education priorities and enable the efficient use of graduate education resources.
- (U) (\$11K) Handbook for Human-Computer Interface (HCI) Design and Usability Testing project will be completed in FY-05. In FY-04, began development, testing, and evaluation of an HCI design methodology and prototype testing and evaluation system. The product of this research effort will be used in early and midcourse design and testing phases of new computer-based systems or during major systems upgrades.
- (U) (\$20K) Small Business Innovative Research (SBIR) and other withhold amounts.

(U) FY 2005 PLAN:

- (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.

R-1 SHOPPING LIST - Item No. 145

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
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>(U) FY 2005 PLAN: (Continued)</p> <ul style="list-style-type: none">• (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) (\$90.1K) Billet Gap Analysis. With human capital becoming a major focus in Navy leadership, many types of metrics will need to be defined in order to determine the gaps, or reductions in the human capital index. Given this, personnel and placement managers often encounter situations in which there is a discrepancy between what the system has determined as being a gap and what the contextual evidence seems to suggest about the "gap." <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) (\$129K) 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) (\$80K) Assess the Total Officer Force Composition.• (U) (\$80K) Analyze Nuclear Field Enlisted Retention and Compensation.• (U) (\$57K) Assess alternative approaches for development of a new/updated Navy Manpower Requirements System.• (U) (\$80K) Assess Return on Investment (ROI) for select Officer Programs.		

R-1 SHOPPIN LIST - Item No. 145

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605152N, Studies and Analysis Support, Navy	PROJECT NUMBER AND NAME 2097/Manpower, Personnel and Training			
B. PROGRAM CHANGE SUMMARY:					
Funding:		FY 2004	FY 2005	FY 2006	FY 2007
FY 2005 President's Budget		0.294	0.292	0.293	0.295
FY 2006/2007 President's Budget		0.285	0.288	0.295	0.297
Total Adjustments		-0.009	-0.004	0.002	0.002
Summary of Adjustments:					
Congressional undistributed reductions			-0.004		
SBIR/STTR Transfer		-0.009			
Economic Assumptions				0.002	0.002
		-0.009	-0.004	0.002	0.002
Schedule:					
Not Applicable					
Technical:					
Not Applicable					

R-1 SHOPPIN LIST - Item No. 145

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	39,772	42,280	49,891	51,524	52,640	53,646	54,731	55,849
C0031 MARINE CORPS OPERATIONS & ANALYSIS GROUP (MCOAG)	4,459	3,799	6,954	7,596	7,751	7,823	7,947	8,033
R0148 CENTER FOR NAVAL ANALYSES, NAVY	35,313	38,481	42,937	43,928	44,889	45,823	46,784	47,816

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

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

PROGRAM CHANGE SUMMARY:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2005 President's Budget Submission	37,918	43,982	36,104	37,807
Center for Naval Analyses	0	0	8,909	8,996
Cong Rescissions/Adjustments/Undist. Reductions	0	-1,693	0	0
Execution Adjustments	1,886	0	0	0
Non-Pay Inflation Adjustments	-32	0	492	659
Program Adjustments	0	-9	4,386	4,062
FY 2006/2007 President's Budget Submission	39,772	42,280	49,891	51,524

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROJECT NUMBER: C0031

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT TITLE: MC OPS & ANALYSIS GROUP (MCOAG)

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
------------------------	----------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

C0031 MARINE CORPS OPERATIONS & ANALYSIS GROUP (MCOAG)	4,459	3,799	6,954	7,596	7,751	7,823	7,947	8,033
--	-------	-------	-------	-------	-------	-------	-------	-------

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 2004	FY 2005	FY 2006	FY 2007
MARINE CORPS OPERATIONS AND ANALYSIS GROUP	4,459	3,799	6,954	7,596

FY 2004 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).

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT NUMBER: C0031

PROJECT TITLE: MC OPS & ANALYSIS GROUP (MCOAG)

- Completed the following efforts from the MCSSMP: Cumulative Impact of Aviation Transition Programs, Maritime Prepositioning Force Marine Expeditionary Brigade (MEB) Force Closure/Throughput, Sea-Basing Implications to the Combat Service Support (CSS), Cost Benefit Analysis of Lump Sum Zone B and Zone C, and Feasibility of Conducting a Marine Expeditionary Brigade (MEB) Level Combined Arms Exercise (CAX) and Total Cost for Non-Aviator Joint Terminal Attack Controller (JTAC) Policy.
- Initiated the following efforts from the FY04 MCSSMP: Forecasting Losses, 2010 USMC Asia Pacific Force/Presence/Basing Analysis, Armed Forces Vocational Aptitude Battery (ASVAB) Validation Study, and Marine Corps Prepositioning in 2025 studies.
- 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 included: general concept development, quick response studies, CNA self-initiated analysis efforts, administrative support, liaison, travel, and contract award fee.

FY 2005 Plans:

- Provide formal study and analysis support to the operating forces and headquarters elements included in the annual MCSSMP.
- Continue and complete the following efforts from the FY04 MCSSMP: Forecasting Losses, 2010 USMC Asia Pacific Force/Presence/Basing Analysis, Armed Forces Vocational Aptitude Battery (ASVAB) Validation Study, and Marine Corps Prepositioning in 2025 studies.
- Initiate the following efforts from the FY05 MCSSMP: Expeditionary Strike Group (ESG) Sea Swap Analysis, 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, Future Combat Systems Assessment.
- Provide five 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; and DCMC Programs and Resources.

R1 Line Item 146

Page 4 of 8

UNCLASSIFIED

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT NUMBER: C0031

PROJECT TITLE: MC OPS & ANALYSIS GROUP (MCOAG)

- 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.

FY 2006 Plans:

- Provide formal study and analysis support to the operating forces and headquarters elements included in the annual MCSSMP.
- Provide five 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; and DCMC Programs and Resources.
- 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.

FY 2007 Plans:

- Provide formal study and analysis support to the operating forces and headquarters elements included in the annual MCSSMP.
- Provide five 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; and DCMC Programs and Resources.
- 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).

R1 Line Item 146

Page 5 of 8

UNCLASSIFIED

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT NUMBER: C0031

PROJECT TITLE: MC OPS & ANALYSIS GROUP (MCOAG)

- 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.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT NUMBER: R0148

PROJECT TITLE: CENTER FOR NAVAL ANALYSES, NAVY

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
------------------------	----------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

R0148 CENTER FOR NAVAL ANALYSES, NAVY

	35,313	38,481	42,937	43,928	44,889	45,823	46,784	47,816
--	--------	--------	--------	--------	--------	--------	--------	--------

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 2004	FY 2005	FY 2006	FY 2007
CENTER FOR NAVAL ANALYSES, NAVY	35,313	38,481	42,937	43,928

FY 2004 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), 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.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605154N

PROJECT NUMBER: R0148

PROGRAM ELEMENT TITLE: CENTER FOR NAVAL ANALYSES

PROJECT TITLE: CENTER FOR NAVAL ANALYSES, NAVY

FY 2005 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 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.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	1,964	2,290	2,266	2,740	2,832	2,891	2,959	3,031
R0151 INTERTYPE TACTICAL DEVELOPMENT	1,964	2,290	2,266	2,740	2,832	2,891	2,959	3,031

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.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

PROGRAM CHANGE SUMMARY:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2005 President's Budget Submission	1,984	2,338	2,390	2,883
Cong Rescissions/Adjustments/Undist. Reductions	0	-47	0	0
Program Adjustments	0	-1	-122	-149
Rate Adjustments	0	0	-2	6
SBIR Assessment	-20	0	0	0
FY 2006/2007 President's Budget Submission	1,964	2,290	2,266	2,740

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: R0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT & EVALUATION

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
------------------------	----------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

R0151 INTERTYPE TACTICAL DEVELOPMENT & EVALUATION	1,964	2,290	2,266	2,740	2,832	2,891	2,959	3,031
---	-------	-------	-------	-------	-------	-------	-------	-------

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 2004	FY 2005	FY 2006	FY 2007
CHANGING THREAT SCENARIOS TO IMPROVE AND MEASURE FORCE READINESS	557	322	358	450

The current asymmetric mode of warfare, as evidenced by the attacks on USS Cole and other US interests, requires a detailed look at development of tactics and procedures to provide Naval forces protection, afloat and ashore. These projects provide that 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 do that thereby assuring freedom of access throughout the battlespace.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: R0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT & EVALUATION

FY 2004 Accomplishments:

- Developed TTP to optimize Amphibious Assault Craft Lane Width in a Mined Environment.
- Developed TTP for Mine Counter-Measures (MCM) Operations in Homeland Defense.
- Developed TTP for Ballistic Missile Submarine Nuclear (SSBN) Minefield Penetration Tactics.
- Developed TTP for Amphibious Assault Ship (General Purpose)/Amphibious Assault Ship (Multipurpose), (LHA/LHD) Air Control Tactics.
- Developed TTP for Amphibious Landing Craft Control.

FY 2005 Plans:

- Develop TTP for Account For Variance in Contact Localization Accuracy.
- Develop TTP for Bottom Boundary Layer Effect on Acoustic Systems.
- Develop TTP for Maritime Tactical Development for Armed Unmanned Combat Vehicle's (UCV).

FY 2006 Plans:

- Develop TTP for Explosive Ordnance Disposal (EOD) and Very Shallow Water (VSW) Diver Susceptibility.
- Develop TTP for Organic Mine Counter-Measures (OMCM) helicopters assigned to Amphibious Ready Groups (ARG).
- Develop TTP for utilization of Mine Warfare and Environmental Decision Aid Library (MEDAL) to the Advance Force Commander.

FY 2007 Plans:

- Develop TTP for defense against Small Boat Attacks using Armed Unmanned Surface Vehicles (USV).
- Establish TTP for Multi-Amphibious Assault Ship (LHA/LHD) Tactics for Marine Expeditionary Force (MEF).
- Establish TTP for Helicopter Intercept of Low Slow Flyer.
- 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.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: R0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT & EVALUATION

	FY 2004	FY 2005	FY 2006	FY 2007
NEWLY EVOLVING FORCE STRUCTURES	753	791	1,200	1,086

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 2004 Accomplishments:

- Developed TTP for Suspended Sediment Layer MCM Acoustic Tactics.
- Developed TTP for minefield navigation systems for VSW operations while operating in a hostile environment in support of MCM operations that underpin amphibious operations.
- Developed TTP for Surface Chokeypoint Transit Guidance.
- Developed TTP for Operational Tactics for Airborne Detection of Nuclear, Biological, and Chemical (NBC) Weapons.

FY 2005 Plans:

- Develop TTP for Long Range Acoustic Devices (LADS).
- Develop TTP for Operational Tactics for the Command/Control Radar Aircraft (E-2C) for an Expeditionary Environment.
- Develop TTP for Tactical Employment of a Wireless Local Area Network (LAN) for Maritime Interdiction Ops (MIO).
- Develop TTP for Red Force Counter Exploitation.
- Develop TTP for Non-Kinetic Fires and Targeting.
- Develop TTP for Diesel Submarine (SSK) Tactical Guidance.
- Develop TTP for Counter Intelligence, Surveillance, Reconnaissance and Targeting (ISRT) Tactics in the littoral.
- Develop TTP for Attack Criteria Utilizing Torpedo Decision Tree.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: R0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT & EVALUATION

FY 2006 Plans:

- Develop TTP for Threat VSW Ship MCM Systems Matrix.
- Develop TTP for a Common Data Link Management System (CDLMS).
- Develop TTP for Underway Replenishment Ship Susceptibility.
- Develop TTP for Battle Force/Battle Group (BF/BG) Interface Control.
- Develop TTP for Fixed Wing Patrol/Anti-Submarine Warfare (ASW) aircraft (P-3C)/ Aircraft Carrier (Nuclear) (VP/CVN) Tactical Imagery Dissemination.
- Develop TTP for E-2C Hawkeye as the Carrier Battle Group/Carrier Air Wing (CVBG/CVW) quick Auto Time of Day (ATOD) Source.
- Develop TTP for Submarine Mine Vulnerability.
- Develop TTP for E-2C Hawkeye aircraft Group 2 Overland Surface Detection and Tracking.
- Develop TTP for E-2C Hawkeye Weapons System Recording Capability for Playback of Theater-Wide Events.

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 2004	FY 2005	FY 2006	FY 2007
NEW AND EXISTING WEAPON SYSTEMS EMPLOYMENT	654	1,177	708	1,204

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. Tactical Memorandum (TACMEMO's), i.e. TTP, that are developed maximize the Navy's Sea Strike capability through Network Centric Warfare and Navy Fires Networks.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: R0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT & EVALUATION

FY 2004 Accomplishments:

- Developed TTP for SSBN Heavy Weight US Submarine Torpedo (MK48) ADCAP Torpedo Employment.
- Developed TTP to determine EA-6B effectiveness using aircraft carried chaff cutter dispensing system (ALE-43) Bulk Chaff and Chaff Illumination verses Side Lobe Suppression (SLS).
- Developed TTP for Air ASW Torpedo Selection and Employment.
- Developed TTP for Multi Carrier Battle Group Specific Emitter Identification (SEI).
- Developed TTP for the employment of Joint Direct Attack Munitions (JDAM) in a Friendly Environment.
- Developed TTP for measuring Information Warfare (IW) effectiveness.
- Developed TTP for ASW Screen Planners Tactical Decision Aid.

FY 2005 Plans:

- Develop TTP for S-3 Minus Airwing.
- Develop TTP for Multi-Functional Information Distribution System (MIDS) in a Joint Air-to-Ground Arena.
- Develop TTP for JDAM Target of Opportunity (TOO) Tactics.
- Develop TTP for Tactical Tomahawk/Third Party Targeting.
- Develop TTP for Multi-Platform Coordinated Anti-Surface Warfare Tactics.
- Develop TTP for Helicopter-Based Electro-Optical Recognition System.

FY 2006 Plans:

- Develop TTP to enhance Advanced Seal Delivery System (ASDS-SSN) Employment Tactics.
- Develop TTP for employment of New Inventory CV(N) Force Protection Weapons.
- Develop TTP for Preemptive Launch of infra-red (IR) Expendable Decoys by Helicopters to Defeat IR Manpad Threat.
- Develop TTP for Deadeye Wheel Attack Gameplan for Paveway II Weapons.
- Develop TTP for Long-Range ADCAP MK-48 Torpedo Upgrade.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: R0151

PROGRAM ELEMENT TITLE: FLEET TACTICAL DEVELOPMENT

PROJECT TITLE: INTERTYPE TACTICAL DEVELOPMENT & EVALUATION

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.
- Establish TTP for Torpedo Selection and Employment in a specified geographic area to support the current Operations Plan.
- Establish TTP for MCM Reconnaissance Tactics.
- Develop TTP for employment of Coastal (MHC) Dyad Influence Mine Sweeping System.
- Establish TTP for preemptive launch of IR decoys in a hostile landing zone.
- 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.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	262,321	0	0	0	0	0	0	0
C1824 CMC SBIR PROGRAM	9,800	0	0	0	0	0	0	0
C2240 NAVY DUAL USE TECHNOLOGY PROGRAM	615	0	0	0	0	0	0	0
R1864 CNR SBIR PROGRAM	45,338	0	0	0	0	0	0	0
R2204 SMALL BUSINESS TECH TRANSFER PROGRAM	25,174	0	0	0	0	0	0	0
S1814 NAVSEA SBIR PROGRAM	57,260	0	0	0	0	0	0	0
S2242 JASSM SBIR PROGRAM	5,013	0	0	0	0	0	0	0
T0000 SMALL BUSINESS INNOVATIVE RESEARCH	60	0	0	0	0	0	0	0
T1862 SSPO SBIR PROGRAM	1,275	0	0	0	0	0	0	0
T1863 NAVSUP SBIR PROGRAM	505	0	0	0	0	0	0	0
T2248 ADV LIGHTWEIGHT GROUND WEAPONRY SBIR PROGRAM	80	0	0	0	0	0	0	0
W0000 SMALL BUSINESS INNOVATIVE RESEARCH	5,774	0	0	0	0	0	0	0

UNCLASSIFIED

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

W1812	NAVAIR SBIR PROGRAM								
	88,177	0	0	0	0	0	0	0	0
X1813	SPAWAR SBIR PROGRAM								
	13,600	0	0	0	0	0	0	0	0
X2241	NATCMS SBIR PROGRAM								
	900	0	0	0	0	0	0	0	0
Y0000	SMALL BUSINESS INNOVATIVE RESEARCH								
	50	0	0	0	0	0	0	0	0
Y2016	NAVFAC SBIR PROGRAM								
	500	0	0	0	0	0	0	0	0
Z0000	SMALL BUSINESS INNOVATIVE RESEARCH								
	8,200	0	0	0	0	0	0	0	0

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

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

PROGRAM CHANGE SUMMARY:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2004 SBIR	261,894	0	0	0
Execution Adjustments	427	0	0	0
FY 2006/2007 President's Budget Submission	262,321	0	0	0

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	26,916	26,144	714	685	717	738	758	775
R0835 TECH INFO SVCS	718	683	714	685	717	738	758	775
R2296 FEDERAL LAB CONSORTIUM	368	0	0	0	0	0	0	0
R2969 SUPPLY CHAIN PRACTICES FOR AFFORDABLE NAVY SYSTEMS (SPANS)	1,443	991	0	0	0	0	0	0
R2970 CENTER FOR COMMERCIALIZATION OF ADVANCED TECHNOLOGY	8,192	6,740	0	0	0	0	0	0
R9093 LEAN PATHWAYS 3	2,450	0	0	0	0	0	0	0
R9262 PACIFIC-BASED JOINT INFORMATION TECHNOLOGY CENTER	6,729	8,421	0	0	0	0	0	0
R9412 HTDV	7,016	4,158	0	0	0	0	0	0
R9501 ILLINOIS TECHNOLOGY TRANSITION CENTER	0	1,286	0	0	0	0	0	0
R9502 INTEGRATED MANUFACTURING ENTERPRISE	0	3,865	0	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Technical Information Services program provides support to achieve affordability in the development of Navy systems and reduce life-cycle costs through the facilitation of advanced technology associations between U.S. industry and the Navy. Warfighting

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

effectiveness is enhanced through strategic relationships with industry to commercialize the science and technology developed by the Naval Research Enterprise and to gain access to concepts, technologies, and business practices of the civil sector.

UNCLASSIFIED

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

PROGRAM CHANGE SUMMARY:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2005 President's Budget Submission	27,270	696	714	682
Cong Rescissions/Adjustments/Undist. Reductions	0	-246	0	0
Congressional Action	0	25,700	0	0
Federal Technology Transfer	368	0	0	0
Non-Pay Inflation Adjustments	-24	0	0	0
Program Adjustments	0	-6	0	0
Rate Adjustments	0	0	0	3
SBIR Assessment	-698	0	0	0
FY 2006/2007 President's Budget Submission	26,916	26,144	714	685

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605804N PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES
PROJECT NUMBER: R0835 PROJECT TITLE: TECH INFO SVCS

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R0835 TECH INFO SVCS	718	683	714	685	717	738	758	775

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 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 2004	FY 2005	FY 2006	FY 2007
LEVERAGE OF INDUSTRY R&D	513	458	480	460

Leverage of Industry R&D supports studies, workshops, conferences, and other activities that facilitate advanced technology associations between U.S. industry and the Navy.

FY 2004 Accomplishments:

- Held two workshops, in technology packaging and insertion opportunities, to explore and pursue opportunities to leverage commercial wide band gap technologies for applications in naval low frequency communications.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROJECT NUMBER: R0835

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT TITLE: TECH INFO SVCS

- Conducted industry site visits and updated naval program offices on industry advancements in wide band gap technologies.
- Continued naval/industry collaboration for industrialized "Cymbal" technology to support improved mine identification. Individual "Cymbal" element prototypes manufactured commercially and evaluated.

FY 2005 Plans:

- Conduct studies, workshops, conferences, and other activities that facilitate advanced technology associations between U.S. industry and the Navy.
- Complete wide band gap technologies initiative.
- Continue naval/industry collaboration for industrialized "Cymbal" technology to support improved mine identification.

FY 2006 Plans:

- Continue all efforts of FY 2005.

FY 2007 Plans:

- Continue all efforts of FY 2006.

	FY 2004	FY 2005	FY 2006	FY 2007
TECHNICAL INFORMATION SERVICES	112	118	122	118

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 technology transfer program.

FY 2004 Accomplishments:

- Supported the Navy Acquisition Research and Development Information Center (NARDIC) as the primary outreach resource to the private sector.
- Assisted small companies to participate in the Naval Potential Contractor Program and other naval programs.

R1 Line Item 149

Page 5 of 11

UNCLASSIFIED

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT NUMBER: R0835

PROJECT TITLE: TECH INFO SVCS

- Maintained on-line job performance support and training tools for DON technology transfer professionals.
- Supported and maintained the networked tracking of technology transfer efforts required for Congressional reporting.

FY 2005 Plans:

- Continue FY 2004 efforts and maintain on-line tools.

FY 2006 Plans:

- Continue FY 2005 efforts and maintain on-line tools.

FY 2007 Plans:

- Continue FY 2006 efforts and maintain on-line tools.

	FY 2004	FY 2005	FY 2006	FY 2007
COMMERCIALIZATION OF NAVY-DEVELOPED TECHNOLOGIES	93	107	112	107

Commercialization of Navy-developed technologies supports the transfer of appropriate Navy-developed innovative concepts and inventions to the private sector for purposes of military and dual-use commercialization (Public Law 96-480, Federal Technology Transfer Act of 1986).

FY 2004 Accomplishments:

- Promoted naval-developed technologies at Pacific 2004 International Exposition.
- Conducted pilot program to assess the application of commercial intellectual property driven innovation to naval challenges.

FY 2005 Plans:

- Conduct tests, develop models, and perform market evaluations supporting commercialization of Navy-developed technologies for military and dual-use applications.

R1 Line Item 149

Page 6 of 11

UNCLASSIFIED

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROJECT NUMBER: R0835

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT TITLE: TECH INFO SVCS

FY 2006 Plans:

- Continue all efforts of FY 2005.

FY 2007 Plans:

- Continue all efforts of FY 2006.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

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

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R2296 FEDERAL LAB CONSORTIUM	368	0	0	0	0	0	0	0

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

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2004	FY 2005	FY 2006	FY 2007
FEDERAL LAB CONSORTIUM	368	0	0	0

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

FY 2004 Accomplishments:

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

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROJECT NUMBER: Various

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT TITLE: Congressional Plus-Ups

CONGRESSIONAL PLUS-UPS:

R2969	FY 2004	FY 2005
SUPPLY CHAIN PRACTICES FOR AFFORDABLE NAVY SYSTEMS (SPANS)	1,443	991

FY 2004: 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 (SPANS) project. Program concentrated on the Defense Prime contractors and their respective supply chains.

FY 2005: Improve 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 (SPANS) project. The FY 2005 effort will shift the emphasis to assist in the transformation of the Navy's organic maintenance and logistics organizations.

R2970	FY 2004	FY 2005
CENTER FOR COMMERCIALIZATION OF ADVANCED TECHNOLOGY	8,192	6,740

FY04: Supported an innovative and cost-effective capability to identify, evaluate, develop and commercialize cutting edge technologies from any source - academia, private industry, and government facilities - which address naval requirements and other government-defined priority issues. Completed a Low Volatility Hazard Detector Employing the M256A1 Chemical Agent Detector; a Non-invasive Oral Fluid Test to Assess the Immune Response of Anthrax-Vaccinated Individuals; and a Micro-Electro-Mechanical Systems Ultra-Sensitive Accelerometer.

FY05: Support an innovative and cost-effective capability to identify, evaluate, develop and commercialize cutting edge technologies from any source - academia, private industry, and government facilities - which address naval requirements and other government-defined priority issues.

R9093	FY 2004	FY 2005
LEAN PATHWAYS 3	2,450	0

Improved the capability of the Navy's sub-tier suppliers by introducing them to Lean Manufacturing practices.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

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

R9262	FY 2004	FY 2005
PACIFIC-BASED JOINT INFORMATION TECHNOLOGY CENTER	6,729	8,421

FY 2004: Enabled DoD, through the Joint Information Technology Center (JITC) in Hawaii, to continue integrating and implementing logistics and personnel initiatives underway, including medical surveillance, logistics systems, business objects and decision support systems.

FY 2005: Continue research and development of theater medical surveillance networks and the joint medical logistics web site development for DoD asset visibility. Both programs are jointly funded by ONR and the Defense Medical Logistics project. In support of the J4 Staff, Joint Chiefs of Staff (JCS) funds will support continued research and development for developing cross domain solutions capable of sharing information between networks of differing security levels for both U.S.-only and coalition network environments. Continue 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. Continue educational outreach K-12 in Hawaii to engage students in emerging technology applications.

R9412	FY 2004	FY 2005
HTDV	6,534	4,158

FY04: The Hawaii Technology Development Venture (HTDV) supported the development of a regional center for the commercialization of defense and homeland security technologies and provided an opportunity for small companies in Hawaii to develop advanced technologies for national defense. HTDV awarded 20 grants/contracts to 18 local companies to fund DoD/DoN related research initiatives.

FY05: HTDV will award additional grants/contracts to continue research associated with defense wide research initiatives; conduct workshops on project management, business enterprise and proposal preparation; and initiate a mentoring program linking large DoD contractors with local small businesses.

R9412	FY 2004	FY 2005
RCUH ENGINEERING DESIGN CENTER	482	0

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605804N

PROJECT NUMBER: Various

PROGRAM ELEMENT TITLE: TECHNICAL INFORMATION SERVICES

PROJECT TITLE: Congressional Plus-Ups

Established a partnership between the Research Corporation of the University of Hawaii (RCUH) and the Navy to establish a center that supports the federal government in the development of technologies in areas such as aircraft systems, sensors, radars, optics, environmental engineering and ordnance studies, and communications and information systems.

R9501	FY 2004	FY 2005
ILLINOIS TECHNOLOGY TRANSITION CENTER	0	1,286

Effort supports Illinois Technology Transition Center.

R9502	FY 2004	FY 2005
INTEGRATED MANUFACTURING ENTERPRISE	0	3,865

Initiate 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 (specifically the LPD-17 class).

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE 0605853N/Management, Technical and International Support			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	29.992	30.692	44.847	45.438	47.171	47.392	48.442	49.548
3039 CHENG	11.982	11.123	15.610	16.029	16.996	16.630	17.024	17.480
0149 International Cooperative RDT&E	1.785	1.646	1.723	1.787	1.866	1.924	1.985	2.046
9263 Combating Terrorism Wargaming Research	1.223	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1767 Naval War College/Center for Naval Warfare Studies	2.964	2.353	3.311	3.276	3.420	3.500	3.540	3.609
3025 Capital Asset Management System	0	4.012	2.038	1.600	1.628	1.630	1.666	1.705
2221 Assessment Program	12.038	11.558	22.165	22.746	23.261	23.708	24.227	24.708

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 a family-of-systems (FoS) or system-of-systems (SoS) acquisition programs and systems. 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 four key elements: System and Technical Architectures and Interoperability Assessments to provide the framework for making engineering decisions by warfighting capability at the FoS/SoS level, and to establish acquisition portfolios that deliver that capability based on the integration and interoperability requirements. Large-Scale Systems Engineering processes and system engineering integrated product teams are established to support 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 where all ASN (RDA) CHENG integration and interoperability information will be managed electronically to enable collaboration and decision support among Fleet organizations, Program Executive Offices, Program Managers, Systems Commands, prime contractors, Resource/Warfare Sponsors and Comptroller organizations. DoN Standards, Policies and Guidelines engineering and technical staff that recommend integration and interoperability policies and standards mandated by Joint and OSD initiatives and DoN acquisition requirements including leadership in the implementation of Anti-Tamper, software engineering and technical data standards. RDA CHENG was transferred to the Assistant for Administration to the Under Secretary of the Navy (AAUSN) starting in FY 2004.

Project 0149 provides program management, execution, and support to implement a broad range of cooperative naval research and development (R&D) initiatives with allied and friendly nations. Potential cooperative programs are pursued to fulfill established operational requirements, enhance U.S./allied interoperability and standardization, obtain unique foreign technologies, and reduce U.S. developmental and production costs.

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.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification	DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6	R-1 ITEM NOMENCLATURE 0605853N/Management, Technical and International Support

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

Project 9263, Combating Terrorism Wargaming Research: The Naval War College, Newport, RI will conduct a series of wargames and research projects to identify potential terrorist threats and develop scenarios to counter those threats.

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) with N80 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. 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.

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.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

E Project Justification							DATE: February 2005	
TION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N /	BA-6	0605853N/Management, Technical and International Support			3039 CHENG			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	11.982	11.123	15.610	16.029	16.996	16.630	17.024	17.480
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 a family-of-systems (FoS) or system-of-systems (SoS) acquisition programs and systems. 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 four key elements: System and Technical Architectures and Interoperability Assessments to provide the framework for making engineering decisions by warfighting capability at the FoS/SoS level, and to establish acquisition portfolios that deliver that capability based on the integration and interoperability requirements. Large-Scale Systems Engineering processes and system engineering integrated product teams are established to support 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 where all ASN (RDA) CHENG integration and interoperability information will be managed electronically to enable collaboration and decision support among Fleet organizations, Program Executive Offices, Program Managers, Systems Commands, prime contractors, Resource/Warfare Sponsors and Comptroller organizations. DoN Standards, Policies and Guidelines engineering and technical staff that recommend integration and interoperability policies and standards mandated by Joint and OSD initiatives and DoN acquisition requirements including leadership in the implementation of Anti-Tamper, software engineering and technical data standards. RDA CHENG was transferred to the Assistant for Administration to the Under Secretary of the Navy (AAUSN) starting in FY 2004.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2004	FY 2005	FY 2006	FY 2007
System and Technical Architectures	3.092	3.023	3.310	3.329

FY 2004 ACCOMPLISHMENTS:

- Developed a DoN integrated architecture governance process in collaboration with DoN Chief Information Office, Systems Commands and Net Warfare Command.
- Implemented the use of a Common System Function List (CSFL) within the DoN as the basis for describing Naval capabilities for operational and system architectures.
- Initiated work with Joint Forces Command (JFCOM) to adapt the Navy list for use in Joint capabilities based acquisition.
- Developed an integrated architecture and executable model for the Expeditionary Strike Group Land Attack (ESG LA) acquisition program portfolio (based on POM 06 Fires and Maneuver mission capability within the Sea Strike Pillar) as part of the ESG LA System Engineering Integrated Product Team (SE IPT).
- Completed pilot work for creating ESG LA Capability Evolution Document (CED).

FY 2005 PLAN:

- Implement the integrated architecture governance process and CSFL configuration management with other DoN processes such as FORCEnet, Virtual Systems Command, and Command, Control, Communication, Computers and Intelligence (C4I) Support Plan review, and issue appropriate guidebooks within DoN.
- Integrate DoN architecture process with evolving Joint and OSD initiatives such as Joint Battle Management Command and Control (JBMC2) and Joint Functional Capabilities Board actions.
- Complete the process to integrate and validate Sea Power 21 pillar architectures against Joint and Global Information Grid (GIG) integrated architectures.
- Expand and evolve the ESG LA integrated architecture and the CED.
- Initiate activities on Naval Integrated Fire Control – Counter Air (NIFC – CA) integrated architecture using ESG LA lessons learned.

FY 2006 PLAN:

- Manage and evolve DoN architecture governance process, guidance and relationship with Joint and OSD architecture processes.
- Complete Sea Strike, Sea Shield, Sea Basing and FORCEnet integrated architecture assessments as the basis for representing a Naval architecture for use by Joint and OSD communities.
- Complete ESG LA CED.
- Expand scope of ESG LA integrated architecture to include the Carrier Strike Group (CSG) platforms and systems.
- Complete NIFC – CA integrated architecture.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2004	FY 2005	FY 2006	FY 2007
Naval Collaborative Engineering Environment (NCEE)	2.700	2.600	3.000	3.000

FY 2004 ACCOMPLISHMENTS:

- Deployed a Navy Marine Corps Internet compliant external access capability for use of collaborative engineering tool suite.
- Created and maintained an the Expeditionary Strike Group Land Attack (ESG LA) System Engineering Integrated Product Team (SE IPT) work space to support architecture and assessment working groups, systems engineering tool products and management and documentation functions.
- Coordinated with The Technical Coalition Partners - Technical Panel 4 (TTCP – TP4) to establish a coalition collaborative engineering environment and established an interface with the NCEE.
- Developed an interface plug-in for Navy Open Architecture (OA) and Joint Service System Engineering Program Office / Integrated Air Picture (JESSO / SIAP) to facilitate the exchange of systems engineering data to support family of systems and system of systems assessments.

FY 2005 PLAN:

- Implement external interfaces to authoritative DoN data bases (e.g., Navy Tool for Interoperability and Risk Assessment (NTIRA)) to create an Interoperability Data Management and Analysis (IDMA) capability within the acquisition community that supports ASN (RD&A) and OPNAV decision making.
- Continue technical support to the ESG LA SE IPT with the integration of new engineering tools (e.g., system models and simulations) to support performance analyses and trade studies at the acquisition portfolio level.
- Provide technical support to Joint Forces Command (JFCOM) to establish a JFCOM CEE and implement appropriate Memoranda of Agreement (MOA) and interfaces for collaboration and mutual work sharing.
- Continue implementing MOAs and interfaces with TTCP – TP4 member countries.

FY 06 PLAN:

- Establish a Naval Integrated Fire Control – Counter Air (NIFC – CA) SE IPT workspace.
- Continue technical support to the ESG LA SE IPT in expanding its scope to include Carrier Strike Groups (CSGs) platforms and systems.
- Establish data requirements, MOAs and technical interfaces between authoritative Naval and Joint databases and the NCEE to facilitate family of systems and/or system of systems engineering assessments and integration and interoperability assessments.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2004	FY 2005	FY 2006	FY 2007
Large Scale Systems Engineering	3.400	2.900	4.400	4.700

FY 2004 ACCOMPLISHMENTS:

- Established the Expeditionary Strike Group Land Attack (ESG LA) System Engineering Integrated Product Team (SE IPT) under Program Executive Office for Integrated Warfare System (PEO IWS) leadership to serve as a pilot for implementing capability-based acquisition within DoN.
- Coordinated development of the preliminary System Engineering Plan (SEP) and System Performance Document (SPD) and built an executable model within the Naval Collaborative Engineering Environment (NCEE) for accessing the behavior and interoperability of the ESG LA system architecture in a scenario context.
- Completed initial draft family-of-systems / system-of-systems (FoS / SoS) guidebook based on the ESG LA pilot for use by ASN RD&A chartered SE IPTs.
- Provided technical support to PEO Command, Control, Communication, Computers and Information (C4I) in the development of a Communications Roadmap for ASN RD&A, and in the establishment of the Navy wideband waveform working group to represent Navy interests at the Joint Tactical Radio System (JTRS) Project Office.

FY 2005 PLAN:

- Continue ESG LA SE IPT activities: complete final SEP; complete and implement the analysis plan; issue the SPD version 1.0; perform integration and interoperability risk assessments to support scheduled program milestone reviews; and extend the executable model scope to include Carrier Strike Group (CSG) platforms and systems.
- Establish a Naval Integrated Fire Control – Counter Air (NIFC – CA) SE IPT.
- Continue support to PEO C4I for the Navy wideband waveform working group.

FY 2006 PLAN:

- Continue ESG / CSG LA SE IPT activities: update the SEP, analysis plan and the SPD version 2.0 to reflect CSG platforms and systems, and conduct integration and interoperability risk assessments to support scheduled milestone reviews.
- Initiate NIFC – CA SE IPT activities: prepare SEP and analysis plan, develop an executable model within the NCEE to assess the behavior and interoperability of the NIFC – CA system architecture in a scenario context.
- Continue support to PEO C4I for the Navy wideband waveform working group.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 3039 CHENG

B. Accomplishments/Planned Program

	FY 2004	FY 2005	FY 2006	FY 2007
Standards, Policy, and Guidelines	2.800	2.600	4.900	5.000

FY 2004 ACCOMPLISHMENTS:

- Completed assessments of the Joint Capability Integration and Development System (JCIDS) process and associated documents (e.g., CJCSI/M 3170), DOD acquisition system process and associated documents (e.g., DODD/I 5000 and Defense Acquisition Guide), Interoperability documents (e.g., DODD/I 4630.5/8), Joint Technical Architecture version 5.0, DOD Architecture Framework version 1.0, DON CIO Architecture Policy, Combat Systems (IWS) Open Architectures, SIAP common systems functions, SECNAVINST 5000.2C and guidebook, FORCEnet Architecture and Standards and associated documents, SECDEF Strategic Planning Guidance, Joint Battle Management Command and Control (JBMC2) Roadmap, and many other guidelines, standards, and policy documents that potentially impact the DoN acquisition community.
- Represented ASN RD&A in the response to SECDEF Management Information Directive (MID) 912, for the alignment of FORCEnet and Navy programs to Joint Battle Management Command and Control (JBMC2).
- Represented ASN RD&A for the Air Missile Defense (AMD) Roadmap on Sea Shield and Navy program alignment to the Functional Capability Board (FCB) Force Protection Capability area.
- Assisted PEOs, PMs, and SYSCOMs in policy and standards compliance in the preparation of acquisition program documentation (e.g, C4ISPs and Information Assurance) prior to scheduled milestone reviews.
- Facilitated and collaborated with Systems Commands and Program Executive Offices on CNO-ASN RD&A Topside Integration policy.

FY 2005 PLAN:

- Continue representation in MID 912 JBMC2 and AMD alignment activities.
- Initiate representation on at least one additional Joint FCB (Force Application) for alignment of Navy Sea Strike programs.
- Establish a ready access and authoritative integration and interoperability standards, policy, and guidelines resource reference utilizing the NCEE.
- Assist PEOs, PMs, and SYSCOMs in policy and standards compliance.
- Initiate coordination among policies towards development of an integrated quick reference roadmap for acquisition programs on how the policies fit together.

FY 2006 PLAN:

- Continue representation in MID 912 JBMC2, AMD, and Force Application alignment activities.
- Initiate representation on at least one additional Joint Staff FCB (Net Centric) for alignment of Navy pillars and programs.
- Manage the integration and interoperability standards, policies, and guidelines .
- Assist PEOs, PMs, and SYSCOMs in policy and standards compliance.
- Continue development of an integrated quick reference roadmap for acquisition programs on how the policies fit together.
- Implement Anti-Tamper policy throughout DoN
- Develop Anti-Tamper database to meet user continuing requirements

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 3039 CHENG
---	---	---------------------------------------

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget: (FY 05 Pres Controls)	12.242	11.563	14.230	14.689
Current President Budget: (FY06Pres Controls)	11.982	11.123	15.610	16.029
Total Adjustments	-0.260	-0.440	1.380	1.340
Summary of Adjustments				
FY 04 SBIR adjustments	-0.175	0.000	0.000	0.000
FY06 SRB - Anti Tamper	0.000	1.500	1.500	1.600
Congressional Recessions/Adjustments/Undistributed Reductions	0.000	-0.440	0.095	0.196
Program Adjustment	0.000	0.000	-0.215	-0.456
Execution Realignment	-0.085	0.000	0.000	0.000
FY06 SBR- Anti Tamper adjustment	0.000	-1.500	0.000	0.000
Subtotal	-0.260	-0.440	1.380	1.340

Schedule: "Not Applicable."

Technical: "Not Applicable."

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		0605853N/Management, Technical, and International Spt			PROJECT NUMBER AND NAME R0149 International Cooperative RDT&E			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	1.785	1.646	1.723	1.787	1.866	1.924	1.985	2.046
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 (R&D) initiatives with allied and friendly nations. Potential cooperative programs are pursued to enhance U.S. and coalition warfighting capabilities, enhance U.S./allied interoperability and standardization, obtain unique foreign technologies, and reduce U.S. developmental and production costs. Such efforts result in:

1. Development and negotiation of approximately 50 International Research Development Test and Evaluation (RDT&E) Agreements annually with allied and friendly nations.
2. Execution of over 300 information exchange annexes.
3. Participation in armaments cooperation fora including the Conference of North Atlantic Treaty Organization (NATO) Armaments Directors groups (e.g., the NATO Naval Armaments Group), Senior National Representative (SNR) meetings and The Technical Cooperative Program (TTCP).
4. Participation in the Engineering and Scientist Exchange Program (ESEP).

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R0149 International Cooperative RDT&E

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
DoN Participation	1.785	1.646	1.723	1.787

Brief Description of DoN Participation.

FY 2004 ACCOMPLISHMENTS:

Refocused efforts to emphasize cooperation in the Global War on Terrorism with existing and new allies. Worked with US DoD/State Department and other agencies to assess and prioritize potential new partners to develop capabilities in support of non-symmetrical warfare, anti-terrorism technologies. Focused on coalition interoperability and enhancing the ability of allies to integrate into a coalition battle force. Engaged in evolving the NATO Naval Armaments Group (NNAG) and Five Power Groups to focus on today's threat and ensuring coalition interoperability in the alliance.

Refocused international activities to obtain foreign technologies and capabilities that improve USN warfighting capabilities through collaboration and/or cooperative development. Conducted harmonization of requirements with critical allies to identify common areas of interest, particularly in littoral mine, anti-submarine warfare and non-conventional threats.

Reprioritized cooperative programs with foreign navies to focus on technology, techniques and equipment that improve/enhance coalition capability. Chief of Naval Operations (OPNAV) has increased its participation in Office of the Secretary of Defense Acquisition Technology and Logistics (OSD, AT&L's) Foreign Comparative Test (FCT) Program and the Coalition Warfare Program (CWP) to enhance synergy between these programs and warfighting requirements.

Continued to update the DoN data base for drafting, negotiating, managing and tracking of proposed International Agreements (IAs) for "high leverage/high payoff" R&D technology projects with key allies and friendly nations. Provided 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.

Increased the level of Navy Participation in the ESEP to four scientists/engineers. Continued to conduct post-assignment analysis of scientists/engineers to better target future opportunities for emerging technologies and programs at foreign research establishments.

FY 2005 PLANS:

Continue to emphasize cooperation in the Global War on Terrorism with allies. Work with US DoD/State Department and other agencies to assess and prioritize potential new partners with capabilities in non-symmetrical warfare, anti-terrorism technologies. Continue to focus on coalition interoperability and enhancing the ability of allies to integrate into a coalition battle force. Continue to work to evolve the NATO Naval Armaments Group (NNAG) and Five Power Groups to focus on future threats and ensuring coalition interoperability in the alliance.

Focus on international activities to obtain foreign technologies and capabilities that improve USN warfighting capabilities through collaboration and/or cooperative development. Conduct harmonization of requirements with critical allies to continue to improve coalition interoperability and develop interoperability with newly emerging allies and friendly nations.

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R0149 International Cooperative RDT&E

B. Accomplishments/Planned Program (Cont.)

Prioritize cooperative programs with foreign navies to focus on technology, techniques and equipment that improve/enhance coalition capability. Emphasize increased participation in the Office of the Under Secretary of Defense (OUSD) AT&L's Foreign Comparative Test (FCT) Program and the Coalition Warfare Program (CWP) to better influence program selection that could satisfy capability requirements.

Maintain and evolve the DoN database for drafting, negotiating, managing and tracking of proposed International Agreements (IAs) for "high leverage/high payoff" R&D technology projects with key allies and friendly nations. Integrate DoN international databases ensuring sharing of critical data in order to enhance cooperative opportunities leveraging scarce program dollars. Provide support to Acquisition Integrated Product Teams (IPTs) in evaluating international cooperative alternatives for development of DoN programs as well as support to the Office of the Secretary of Defense (OSD) International Cooperation Office.

Evaluate foreign research establishments and emerging technologies to best determine placement of US Navy ESEP placements to best leverage their expertise. Conduct competitive screening to select scientists/engineers in order to maintain Navy participation in the ESEP at two to three scientists/engineers. Conduct post-assignment analysis of scientists/engineers to better integrate the technologies assimilated while on assignment at a foreign research establishment.

FY 2006 PLANS:

Continue to emphasize cooperation in the Global War on Terrorism with allies. Work with US DoD/State Department and other agencies to assess and prioritize potential new partners with capabilities in non-symmetrical warfare, anti-terrorism technologies. Continue to focus on coalition interoperability and enhancing the ability of allies to integrate into a coalition battle force. Continue to work to evolve the NATO Naval Armaments Group (NNAG) and Five Power Groups to focus on future threats and ensuring coalition interoperability in the alliance. Focus on international activities to obtain foreign technologies and capabilities that improve USN warfighting capabilities through collaboration and/or cooperative development. Conduct harmonization of requirements with critical allies to continue to improve coalition interoperability and develop interoperability with newly emerging allies and friendly nations.

Prioritize cooperative programs with foreign navies to focus on technology, techniques and equipment that improve/enhance coalition capability. Emphasize increased participation in OUSD AT&L's Foreign Comparative Test (FCT) Program and the Coalition Warfare Program (CWP) to better influence program selection that could satisfy capability requirements.

Maintain and evolve the DoN database for drafting, negotiating, managing and tracking of proposed International Agreements (IAs) for "high leverage/high payoff" R&D technology projects with key allies and friendly nations. Integrate DoN international databases ensuring sharing of critical data in order to enhance cooperative opportunities leveraging scarce program dollars. Provide support to Acquisition Integrated Product Teams (IPTs) in evaluating international cooperative alternatives for development of DoN programs as well as support to the Office of the Secretary of Defense (OSD) International Cooperation Office.

Evaluate foreign research establishments and emerging technologies to best determine placement of US Navy ESEP placements to best leverage their expertise. Conduct competitive screening to select scientists/engineers in order to maintain Navy participation in the ESEP at two to three scientists/engineers. Conduct post-assignment analysis of scientists/engineers to better integrate the technologies assimilated while on assignment at a foreign research establishment.

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R0149 International Cooperative RDT&E

B. Accomplishments/Planned Program (Cont.)

FY 2007 PLANS:

Continue to emphasize cooperation in the Global War on Terrorism with allies. Work with US DoD/State Department and other agencies to assess and prioritize potential new partners with capabilities in non-symmetrical warfare, anti-terrorism technologies. Continue to focus on coalition interoperability and enhancing the ability of allies to integrate into a coalition battle force. Continue to work to evolve the NATO Naval Armaments Group (NNAG) and Five Power Groups to focus on future threats and ensuring coalition interoperability in the alliance. Focus on international activities to obtain foreign technologies and capabilities that improve USN warfighting capabilities through collaboration and/or cooperative development. Conduct harmonization of requirements with critical allies to continue to improve coalition interoperability and develop interoperability with newly emerging allies and friendly nations. Prioritize cooperative programs with foreign navies to focus on technology, techniques and equipment that improve/enhance coalition capability. Emphasize increased participation in OUSD AT&L's Foreign Comparative Test (FCT) Program and the Coalition Warfare Program (CWP) to better influence program selection that could satisfy capability requirements. Maintain and evolve the DoN database for drafting, negotiating, managing and tracking of proposed International Agreements (IAs) for "high leverage/high payoff" R&D technology projects with key allies and friendly nations. Integrate DoN international databases ensuring sharing of critical data in order to enhance cooperative opportunities leveraging scarce program dollars. Provide support to Acquisition Integrated Product Teams (IPTs) in evaluating international cooperative alternatives for development of DoN programs as well as support to the Office of the Secretary of Defense (OSD) International Cooperation Office. Evaluate foreign research establishments and emerging technologies to best determine placement of US Navy ESEP placements to best leverage their expertise. Conduct competitive screening to select scientists/engineers in order to maintain Navy participation in the ESEP at two to three scientists/engineers. Conduct post-assignment analysis of scientists/engineers to better integrate the technologies assimilated while on assignment at a foreign research establishment.

R-1 LINE ITEM 150

(Page 12 of 30)

UNCLASSIFIED

Exhibit R-2a, RDTEN Project Justification

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R0149 International Cooperative RDT&E			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget: (FY 05 Pres Controls)		1.864	1.669	1.714	1.756
Current President's Budget: (FY06 Pres Controls)		1.785	1.646	1.723	1.787
Total Adjustments		-0.079	-0.023	0.009	0.031
Summary of Adjustments					
SBIR Assessment		-0.034	0.000	0.000	0.000
Execution Adjustments		-0.045	0.000	0.000	0.000
Congressional Rescissions/Adjustments/Undistributed Reductions		0.000	-0.023	0.000	0.000
Non-Pay Inflation Adjustments		0.000	0.000	0.009	0.012
Rate Adjustments		0.000	0.000	0.000	0.019
Subtotal		-0.079	-0.023	0.009	0.031
Schedule:					
Not Applicable.					
Technical:					
Not Applicable.					

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Support			PROJECT NUMBER AND NAME R1767 Naval Warfare Studies			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	2.964	2.353	3.311	3.276	3.420	3.500	3.540	3.609
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, 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.

R-1 LINE ITEM 150

(Page 14 of 30)

UNCLASSIFIED

Exhibit R-2a, RDTEN Project Justification

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R1767 Naval Warfare Studies

B. Accomplishments/Planned Program

	FY04	FY05	FY06	FY07
Strategic Studies	1.573	1.219	1.533	1.516

Brief Description of Strategic Studies. NWC conducts research in strategic studies in response to taskings from the Secretary of the Navy (SECNAV), CNO, 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 2004 ACCOMPLISHMENTS:

NWC conducted strategic research, analysis and studies in response to SECNAV, CNO, Fleet and Combatant Commander tasking in such areas as maritime strategy, decision support, and direct fleet support. Efforts included research and analysis support for "40+ knot" Concept of Operations, Nuclear Guided Missile Submarines (SSGN) future capabilities, Future Fleet Architecture and the Proliferation Security Initiative. SSG completed an examination of the Naval Force for SEA POWER 21 and beyond, to determine maritime operational concepts needed to conduct joint warfare in 2030 and beyond.

FY 2005 PLANS:

Continue to conduct strategic studies in response to SECNAV, CNO, Fleet and Combatant Commander tasking in the areas of maritime strategy, decision support, and direct fleet support. Continue to conduct warfighting innovation and revolutionary concept generation in response to direct tasking from the CNO.

FY 2006 PLANS:

Continue to conduct strategic studies in response to SECNAV, CNO, Fleet and Combatant Commander tasking in such areas as maritime strategy, decision support, and direct fleet support. 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 and Combatant Commander tasking in such areas as maritime strategy, decision support, and direct fleet support. Continue to conduct warfighting innovation and revolutionary concept generation in response to direct tasking from the CNO.

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R1767 Naval Warfare Studies

B. Accomplishments/Planned Program (Cont.)

	FY04	FY05	FY06	FY07
Naval Wargaming Support	1.313	1.085	1.714	1.696

Brief Description of Naval Wargaming Support. As the nation's premier defense wargaming center, NWC conducts strategic and operational wargaming and research for OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Each year, 50 - 60 major wargames and associated events provide support to efforts that explore and analyze military, political and economic impacts resulting from differing strategic and operational scenarios.

FY 2004 ACCOMPLISHMENTS:
 Conducted 40-50 wargaming and associated activities in support of OPNAV staff, NWDC and the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Major wargaming efforts included games in support of SEATRIAL, advanced Command and Control, 40+ Knot CONOPS, and SSGN future capabilities.

FY 2005 PLANS:
 Conduct 30-40 major wargames and related events in support of OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders.

FY 2006 PLANS:
 Conduct 50-55 major wargames and related events in support of OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Begin implementation of Joint Warfare System (JWARS) to replace the Navy Simulation System.

FY 2007 PLANS:
 Conduct 50-55 major wargames and related events in support of OPNAV, the numbered Fleets, Fleet Commanders, and the Combatant Commanders. Continue implementation of Joint Warfare System (JWARS) to replace the Navy Simulation System.

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R1767 Naval Warfare Studies

B. Accomplishments/Planned Program (Cont.)

	FY04	FY05	FY06	FY07
NWC Student Research Projects	0.078	0.049	0.064	0.064

Brief Description of NWC Student Research Projects. Selected, top-performing NWC students conduct focused research and analysis of current and future strategic and operational challenges. These students are organized under the supervision of the Mahan Scholars Program and the Halsey Group Program.

FY 2004 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 and a Theater Anti Submarine Warfare (ASW) Concept of Operations. Both represent real world operational challenges of concern to the CNO.

FY 2005 PLANS:
 Continue to conduct focused research and analysis of current and future strategic and operational challenges under the Mahan Scholars and Halsey Group programs.

FY 2006 PLANS:
 Continue to conduct focused research and analysis of current and future strategic and operational challenges under 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 under the Mahan Scholars and Halsey Group programs.

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R1767 Naval Warfare Studies
---	---	--

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2004	FY2005	FY2006	FY2007
Previous President's Budget: (FY05 Pres Controls)	2.980	2.376	2.539	2.495
Current President's Budget: (FY06 Pres Controls)	2.964	2.353	3.311	3.276
Total Adjustments	-0.016	-0.023	0.772	0.781
Summary of Adjustments				
PME Strategy	0.000	0.000	0.774	0.783
SBIR Assessment	-0.016	0.000	0.000	0.000
Congressional Rescissions/Adjustments/Undistributed Reductions	0.000	-0.022	0.000	0.000
Program Adjustments	0.000	-0.001	-0.002	-0.002
Subtotal	-0.016	-0.023	0.772	0.781

Schedule:
Not Applicable.

Technical:
Not Applicable.

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6					R-1 ITEM NOMENCLATURE Program Element (PE) No. and Name		0605853N/Mgmt, Tech. and Intl. Spt.	
COST (\$ in Millions)	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Total PE Cost								
R9263/Combating Terrorism Wargaming and Research	1.223	N/A	N/A	N/A	N/A	N/A	N/A	N/A

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Combating Terrorism Wargaming Research: The Naval War College conducted a series of wargames and research projects to identify potential terrorist threats and develop options to counter those threats.

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical, and International Spt			PROJECT NUMBER AND NAME R3025 Mid-Range Financial Improvement Plans			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.000	4.012	2.038	1.600	1.628	1.630	1.666	1.705
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 8 August 2003 memorandum, directed the Military Departments and Defense Agencies, in coordination with the Defense Finance and Accounting Service (DFAS), to prepare a comprehensive mid-range financial improvement plan to identify measurable steps to ensure each material line is auditable, and ensure all major deficiencies are resolved.

This project supports the 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.

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R3025 Mid-Range Financial Improvement Plans
---	---	--

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
DoN Participation	0.000	4.012	2.038	1.600

Brief Description of DoN Participation.

FY 2004 Accomplishments:
Not applicable

FY 2005 Plans:

- Post obligations within the reporting period in which they were incurred. Pursue expanding the practice of having major contracting activities post awards electronically to STARS.
- Perform obligation validations 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.
- Accounts Receivable – Revise process to more accurately record collections. Venture to utilize the newly created Overnight Collections History special reports available via the East Coast Computer Associates (CA)-View region.
- Manually record accounts payable (AP) when material or service is received and accepted. Assuming a functional AP input screen is available in the accounting system (STARS-HCM), develop process to gather receipt/acceptance data from logistical operations side of the house and/or contractors. Monitor to prevent duplication in vendor pay accounting system, STARS One Pay, as invoices are settled.
- Eliminate 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 were incurred. Continue to pursue and expand the practice of having major contracting activities post awards electronically to STARS.
- Continue to perform obligation validations 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.
- Accounts Receivable – Continue to revise process to more accurately record collections. Venture to utilize the newly created Overnight Collections History special reports available via the East Coast Computer Associates (CA)-View region.
- Continue to manually record accounts payable (AP) when material or service is received and accepted. Assuming a functional AP input screen is available in the accounting system (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 150

UNCLASSIFIED

CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R3025 Mid-Range Financial Improvement Plans
---	---	--

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
DoN Participation	0.000	4.012	2.038	1.600

Brief Description of DoN Participation.

FY 2007 Plans:

- Continue to post obligations within the reporting period in which they were incurred. Continue to pursue and expand the practice of having major contracting activities post awards electronically to STARS.
- Continue to perform obligation validations 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.
- Accounts Receivable – Continue to revise process to more accurately record collections. Venture to utilize the newly created Overnight Collections History special reports available via the East Coast Computer Associates (CA)-View region.
- Continue to manually record accounts payable (AP) when material or service is received and accepted. Assuming a functional AP input screen is available in the accounting system (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 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME R3025 Mid-Range Financial Improvement Plans			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget (FY05 Pres Controls)		0.000	4.055	2.038	1.598
Current President's Budget (FY06 Pres Controls)		0.000	4.012	2.038	1.600
Total Adjustments		0.000	-0.043	0.000	0.002
Summary of Adjustments					
Congressional Rescissions/Adjustments/Undistributed Reductions		0.000	-0.042	0.000	0.000
Program Adjustments		0.000	-0.001	0.000	0.000
Rate Adjustments		0.000	0.000	0.000	0.002
Subtotal		0.000	-0.043	0.000	0.002
Schedule:					
Not Applicable.					
Technical:					
Not Applicable.					

R-1 LINE ITEM 150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt			PROJECT NUMBER AND NAME 2221 Assessment Program			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011
Project Cost	12.038	11.558	22.165	22.746	23.261	23.708	24.227	24.708
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) with N80 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. 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.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Navy Standard Scenarios	1.230	1.232	1.330	1.451

FY 2004 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 2005 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 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.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Capability Based Assessments	2.308	2.321	2.506	2.732

FY 2004 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 and led where appropriate (Skunkworks, Level of Effort (LOE) review, etc).

FY 2005 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 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).

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 2221 Assessment Program
---	---	--

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Campaign Analysis - Modeling and Simulation	7.034	6.496	6.700	6.581

FY 2004 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 2005 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 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.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program (Cont.)

	FY 04	FY 05	FY 06	FY 07
OSD/Joint Staff Study Analysis & Assessment	1.466	1.509	1.629	1.772

FY 2004 ACCOMPLISHMENTS:

Continued to lead Joint requirements Oversight Council (JROC), Joint Capabilities Board (JCB), Functional Capabilities Board (FCB), and Joint Warfighting Capabilities Assessment (JWCA) participation. Led Requirements and Acquisition for Office of Chief of Naval Operations (OPNAV). Coordinated/led Navy role in Defense Planning Guidance (DPG), Program Decision Memoranda (PDM), Joint Warfighting Capabilities Assessment (JWCA), 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.

FY 2005 PLAN:

Continue to lead Joint requirements Oversight Council (JROC), Joint Capabilities Board (JCB), and Functional Capabilities Board (FCB), participation. Lead Requirements and Acquisition for Office of the Chief Naval Operations (OPNAV). Coordinate/lead Navy role in Defense Planning Guidance (DPG), Program Decision Memoranda (PDM), Quadrennial Defense Review (QDR), and Defense Science Board (DSB) studies. Promote and defend Navy Program Objectives Memorandum (POM). Provide participation in Office of the Secretary of Defense (OSD) and Joint Staff analysis assessment and provide structure for coordination across the Navy. Establish and manage 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. Create an analytic infrastructure of data of forces, units, equipment, data, Read and Blue Concept of Operations (CONOPS). Continue 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 (IIPs). 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 (IIPs). 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.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 2221 Assessment Program

B. Accomplishments/Planned Program (Cont.)

	FY 04	FY 05	FY 06	FY 07
World Class Modeling, Simulation, and Capability Analysis	0.000	0.000	10.000	10.210

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 guide Navy Programs and investment decision while transitioning to and implementing the Sea Power 21 Concepts of Operations. Support next generation research that emphasizes combat modeling, simulation, wargaming, and analysis in support of strategic, operational, and tactical decision making and experimentation. Develop a plan to execute new Validation, Verification and Accreditation (VV&A) suite of models to meet model and simulation at the mission and campaign level. Evaluate new models that are able to capture ground force Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR) interaction with sea based forces to evaluate requirements to support Global Information grid for expeditionary warfare. Conduct Zero Base Reviews (ZBRs) to evaluate new warfare models for campaign analysis to baseline the process.

FY 2007 PLAN:

Continue to provide the Navy with concise and innovative analyses and assessment to help guide Navy Programs and investment decision while transitioning to and implementing the Sea Power 21 Concepts of Operations. Support next generation state-of-the-art research that emphasizes combat modeling, simulation, wargaming, and analysis in support of strategic, operational, and tactical decision making and experimentation. Develop a plan to execute into new Validation, Verification and Accreditation (VV&A) suite of models to meet model and simulation at the mission and campaign level. Evaluates new models that are able to capture ground force Command, Control, Communication, Computers, Intelligence, Surveillance & Reconnaissance (C4ISR) interaction with sea based forces to evaluate requirements to support Global Information grid for expeditionary warfare. Conduct Zero Base Reviews (ZBRs) to evaluate new warfare models for campaign analysis to baseline the process. Development of new analytic tools for the Quadrennial Defense Review (QDR) and continued development of a robust library of scenarios. Assess analytical models relevant for current and future Joint warfare.

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

CLASSIFICATION:

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

APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605853N/Management, Technical and International Spt	PROJECT NUMBER AND NAME 2221 Assessment Program
---	---	--

C. PROGRAM CHANGE SUMMARY:

Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY05 President's Budget	12.579	11.744	12.023	12.295
FY06 President's Budget Submit	12.038	11.558	22.165	22.746
Total Adjustments	-0.541	-0.186	10.142	10.451
Summary of Adjustments				
Joint Mission Assessment Studies			10.000	10.210
FY04 Technology Transfer	-0.005			
FY04 SBIR (9Apr04)	-0.317			
Sec 8105 Reduce IT Dev Cost		-0.001		
Sec 8122 Assumed Mgmt Improvements		-0.035		
Sec 8131 Non-Statutory Funding Set Aside		-0.068		
FY05 Sec 8028 FFRDC Reduction		-0.079		
Program Adjustments	-0.219	-0.003	0.142	0.241
Total	-0.541	-0.186	10.142	10.451

Schedule: Not Applicable

Technical: Not Applicable

R-1 SHOPPING LIST - Item No.150

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	3,743	3,454	3,451	3,605	3,712	3,871	3,958	4,044
R0128 MANAGEMENT/TECHNICAL SUPPORT STRATEGIC	1,390	1,242	1,292	1,326	1,379	1,414	1,448	1,482
R1038 ACOUSTIC & NON-ACOUSTIC ANALYSIS SUPPORT	2,353	2,212	2,159	2,279	2,333	2,457	2,510	2,562

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

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

PROGRAM CHANGE SUMMARY:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2005 President's Budget Submission	3,837	3,493	3,451	3,601
Cong Rescissions/Adjustments/Undist. Reductions	0	-38	0	0
Program Adjustments	0	-1	0	0
Rate Adjustments	0	0	0	4
SBIR Assessment	-94	0	0	0
FY 2006/2007 President's Budget Submission	3,743	3,454	3,451	3,605

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605856N

PROJECT NUMBER: R0128

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

PROJECT TITLE: MANAGEMENT/TECHNICAL SUPPORT STRATEGIC

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R0128 MANAGEMENT/TECHNICAL SUPPORT STRATEGIC	1,390	1,242	1,292	1,326	1,379	1,414	1,448	1,482

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 2004	FY 2005	FY 2006	FY 2007
MANAGEMENT AND TECHNICAL SUPPORT, STRATEGIC	1,390	1,242	1,292	1,326

FY 2004 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

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605856N

PROJECT NUMBER: R0128

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

PROJECT TITLE: MANAGEMENT/TECHNICAL SUPPORT STRATEGIC

development and science and technology efforts.

- 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.
- Completed technical and operational analysis of potential improvements or additions to submarine systems in order to understand their impact on submarine design, performance and safety.

FY 2005 Plans:

- Continue all efforts of FY04, less those noted as completed above.

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.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
 PROGRAM ELEMENT: 0605856N PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT
 PROJECT NUMBER: R1038 PROJECT TITLE: ACOUSTIC & NON-ACOUSTIC ANALYSIS SUPPORT

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R1038 ACOUSTIC & NON-ACOUSTIC ANALYSIS SUPPORT	2,353	2,212	2,159	2,279	2,333	2,457	2,510	2,562

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 acoustics 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 2004	FY 2005	FY 2006	FY 2007
ACOUSTIC AND NON-ACOUSTIC ANALYSIS SUPPORT	2,353	2,212	2,159	2,279

FY 2004 Accomplishments:

- Continued development of Draft Supplemental EIS for SURTASS LFA.
- Completed preparation of Marine Mammal Stock Estimation Approach Analysis.
- Completed research to determine the impact of IUSS Active Sensors on fish (hearing specialists).
- Completed planning of research to update guidelines for exposure of divers to underwater sound.
- Conducted studies to determine the long-term effects of IUSS Active Sensors on marine mammals.
- Conducted analysis of undersea technology for application for future undersea surveillance capabilities.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605856N

PROJECT NUMBER: R1038

PROGRAM ELEMENT TITLE: STRATEGIC TECHNICAL SUPPORT

PROJECT TITLE: ACOUSTIC & NON-ACOUSTIC ANALYSIS SUPPORT

- Assessed the current and future IUSS warfare areas and potential allied Navy contributions.

FY 2005 Plans:

- Continue all efforts of FY04 less those noted as completed above.
- Complete and file Draft Supplemental EIS for SURTASS LFA.
- Complete research to update guidelines for exposure of divers to underwater low frequency sound.
- Complete analysis of research to determine the impact of IUSS Active Sensors on fish (hearing specialists).
- Initiate and complete research to determine the physiological/behavioral impact of IUSS Active Sensors on fish (hearing non-specialists.)
- Initiate analysis and response to comments on Draft Supplemental EIS for SURTASS LFA.
- Initiate preparation of Final Supplemental EIS for SURTASS LFA.

FY 2006 Plans:

- Continue all efforts of FY05 less those noted as completed above.
- Complete and file Final Supplemental EIS for SURTASS LFA.

FY 2007 Plans:

- Continue all efforts of FY06 less those noted as completed above.
- Initiate maintenance and modification of Final Supplemental EIS for SURTASS LFA.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	74,133	61,717	63,508	64,685	66,968	68,415	69,893	71,413
R0135 ONR SCIENCE AND TECHNOLOGY MANAGEMENT	69,907	55,166	60,324	61,420	63,591	64,970	66,379	67,827
R0137 ONR S&T INSTRUMENTATION MODERNIZATION	775	3,431	*0	0	0	0	0	0
R2353 DFAS BILLINGS	3,451	3,120	3,184	3,265	3,377	3,445	3,514	3,586

* Project is consolidated with R0135 in FY06 and out.

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element covers Office of Naval Research (ONR) 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 Program. The Defense Finance and Accounting Service (DFAS) Billings project provides funds for accounting services provided to Research and Development (R&D) activities.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

PROGRAM CHANGE SUMMARY:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2005 President's Budget Submission	64,162	66,117	62,070	62,588
Cong Rescissions/Adjustments/Undist. Reductions	0	-587	0	0
Congressional Reduction	0	-3,800	0	0
DFAS Bill Adjustment	0	0	110	105
Execution Adjustments	9,998	0	0	0
Program Adjustments	2	-13	0	0
Incremental Rent for New Facility	0	0	833	858
Web/Network Connectivity Services (E-Grants, NMCI, etc)	0	0	495	1,134
SBIR Assessment	-29	0	0	0
FY 2006/2007 President's Budget Submission	74,133	61,717	63,508	64,685

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605861N

PROJECT NUMBER: R0135

PROGRAM ELEMENT TITLE: RDT&E,N SCIENCE AND TECHNOLOGY MANAGEMENT

PROJECT TITLE: ONR SCIENCE AND TECHNOLOGY MANAGEMENT

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R0135 ONR SCIENCE AND TECHNOLOGY MANAGEMENT	69,907	55,166	60,324	61,420	63,591	64,970	66,379	67,827

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports Office of Naval Research (ONR) leadership, management and direction for the Naval Science and Technology program. This project funds salaries, utilities, supplies, and other fixed costs at ONR Headquarters and field offices. ONR sponsors scientific advances, which lead to future Naval capabilities, 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-profits 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 (SBIR), Naval Research Advisory Committee, Navy Patent Program, Navy Historically Black Colleges and Universities Program, Navy Manufacturing Technology Program and the 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 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605861N

PROJECT NUMBER: R0135

PROGRAM ELEMENT TITLE: RDT&E,N SCIENCE AND TECHNOLOGY MANAGEMENT

PROJECT TITLE: ONR SCIENCE AND TECHNOLOGY MANAGEMENT

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2004	FY 2005	FY 2006	FY 2007
S&T MANAGEMENT SUPPORT	69,907	55,166	60,324	61,420

• The project provides for basic costs and support of the ONR headquarters and its field activities in support of the entire Navy Science and Technology 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. GSA directed ONR's move to another facility and FY04 included funding for blast mitigation, build out and outfitting of the facility. FY06 and FY07 include funding for web/networks connectivity (E-Grants, NMCI, etc.) and incremental rent for ONR's facility.

C. OTHER PROGRAM FUNDING SUMMARY:

Increase in FY06 and out is due to the consolidation of project R0137 into this project.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605861N
PROJECT NUMBER: R0137

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

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R0137 ONR S&T INSTRUMENTATION MODERNIZATION	775	3,431	*0	0	0	0	0	0

* Project is consolidated with R0135 in FY06 and out.

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project purchases information technology (IT) and general support equipment for the Office of Naval Research (ONR) headquarters and field offices.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2004	FY 2005	FY 2006	FY 2007
IT AND GENERAL SUPPORT EQUIPMENT	775	3,431	0	0

- This project purchases IT and general support equipment for ONR headquarters and field offices. FY05 includes funding to outfit the new ONR facility. Funding in FY06 and out has been consolidated into Project R0135 for the onset of NMCI.

C. OTHER PROGRAM FUNDING SUMMARY:

Not applicable.

D. ACQUISITION STRATEGY:

Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06
PROGRAM ELEMENT: 0605861N
PROJECT NUMBER: R2353

PROGRAM ELEMENT TITLE: RDT&E,N SCIENCE AND TECHNOLOGY MANAGEMENT
PROJECT TITLE: DFAS BILLINGS

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R2353 DFAS BILLINGS	3,451	3,120	3,184	3,265	3,377	3,445	3,514	3,586

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funding for accounting services provided to Research and Development (R&D) activities by the Defense Finance and Accounting Service (DFAS).

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2004	FY 2005	FY 2006	FY 2007
TRANSACTIONS PROCESSED IN SUPPORT OF DON R&D	3,451	3,120	3,184	3,265

- 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, and the maintenance of trial balances and associated reporting.

C. OTHER PROGRAM FUNDING SUMMARY:
Not applicable.

D. ACQUISITION STRATEGY:
Not applicable.

UNCLASSIFIED

FY 2006 PRESIDENT'S BUDGET REVIEW

DATE: February 2005

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N
 PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 2004 ACTUAL	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	FY 2008 ESTIMATE	FY 2009 ESTIMATE	FY 2010 ESTIMATE	FY 2011 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
*0104 Navy Medical Management Support	12,170	12,971	1,632	1,290	1,462	1,521	1,568	1,606	Continue	Continue
3047 Medical Force Protection	968	6,214	0	0	0	0	0	0	Continue	Continue
Total	13,138	19,185	1,632	1,290	1,462	1,521	1,568	1,606	Continue	Continue

*Note: The Navy Medical Management Support project number reflects a functional transfer of resources for overhead, facility maintenance, and general- purpose equipment from Navy, RDT&E to the Defense Health Program, RDT&E.. 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.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element includes RDT&E,N funds for operating and miscellaneous support costs at RDT&E,N laboratories and other installations, facility and civilian personnel costs not directly chargeable to RDT&E,N projects. Also includes RDT&E,N funds for RDT&E,N laboratories and facilities for research, support, 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. Protection of the Navy Installations against terrorist activities requires development and deployment of advanced technology for force protection capabilities that are cost effective. Force Protection Ashore PE/Project provides for the maintenance, operating and other support costs of laboratories, warfare centers, ranges and supporting activities engaged in shoreside force protection. Included are support for advanced test equipment, construction, data acquisition devices/systems, and software at research activities and supporting installations. The project will

UNCLASSIFIED

FY 2006 PRESIDENT'S BUDGET REVIEW

DATE: February 2005

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N
 PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

conduct studies and analyses 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 ATRP capabilities. Excluded from this project are medical force protection at medical laboratories and activities, military labor costs, and non-RDTE base operating costs.

PROGRAM CHANGE FOR TOTAL PE:

	<u>FY2004</u>	<u>FY 2005</u>	<u>FY2006</u>	<u>FY 2007</u>
(U) FY 2005 President's Budget	13,554	19,370	19,263	19,302
(U) Adjustments from PRESBUDG:				
Section 8094: Management Improvements	-36			
Sec. 8126: Efficiencies/Revised Econ. Assumptions	-116			
FY04 SBIR	-266			
Exec Realignments	2			
Section 8105: Reduce IT Dev Cost Growth		-10		
Section 8122: Assumed Management Improvements		-59		
Section 8131: Non-Statutory Funding Set Asides		-112		
Program Adjustments		-4	-1,532	1,436
Medical Laboratories Transfer			-16,099	-,19,448
(U) FY 2006 President's Budget Submission	13,138	19,185	1,632	1,290

(U) COST: (Dollars in Thousands)

UNCLASSIFIED

FY 2006 PRESIDENT'S BUDGET REVIEW

DATE: February 2005

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 2004 ACTUAL	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	FY 2008 ESTIMATE	FY 2009 ESTIMATE	FY 2010 ESTIMATE	FY 2011 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
0104 Navy Medical Management Support	12,170	12,971	1,632	1,290	1,462	1,521	1,568	1,606	Continue	Continue

(U) PROGRAM ACCOMPLISHMENT AND PLANS:

1. (U) FY 2004 ACCOMPLISHMENTS:

- Provided funds for operating and miscellaneous support costs at BUMED research laboratories. Support included overhead expenses at our OCONUS laboratories, facilities, and general-purpose equipment.

UNCLASSIFIED

FY 2006 PRESIDENT'S BUDGET REVIEW

DATE: February 2005

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

2. (U) FY 2005 PLAN:

- Continue to provide operating and miscellaneous support costs at BUMED research laboratories. Continue to provide support for technologically advanced cutting edge research equipment for research and data acquisition, automated sampling and real time statistical analysis of biomedical research data utilizing data information systems integral with new equipment. Continue to provide replacement of obsolescent general- purpose research equipment. Continue to provide support to physical facility areas needing major repair, minor construction, and rehabilitation to meet mission requirements as well as meeting environmental compliance and pollution standards.

U) FY 2006 PLAN:

- Continue to provide funds for Force Protection Requirements at BUMED medical research laboratories.

B. (U) PROGRAM CHANGE SUMMARY: See Program Change for PE

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

UNCLASSIFIED

FY 2006 PRESIDENT'S BUDGET REVIEW

DATE: February 2005

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N
 PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

PROJECT NUMBER & TITLE	FY 2004 ACTUAL	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	FY 2008 ESTIMATE	FY 2009 ESTIMATE	FY 2010 ESTIMATE	FY 2011 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
3037 Medical Force Protection	968	6,214	0	0	0	0	0	0	Continue	Continue

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides RDT&E,N funds for Force Protection Requirements at BUMED medical research laboratories. Protection of the Navy Installations against terrorist activities requires development and deployment of advanced technology for force protection capabilities that are cost effective. This Force Protection Ashore PE/Project provides for the maintenance, operating and other support costs of laboratories, warfare centers, ranges and supporting activities engaged in shoreside force protection. Included are support for advanced test equipment, construction, data acquisition devices/systems, and software at research activities and supporting installations. This project will conduct studies and analyses 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 ATRFP capabilities. Excluded from this project are medical force protection at medical laboratories and activities, military labor costs and non-RDT&E base operating costs.

UNCLASSIFIED

FY 2006 PRESIDENT'S BUDGET REVIEW

DATE: February 2005

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) PROGRAM ACCOMPLISHMENT AND PLANS:

1. (U) FY 2004 ACCOMPLISHMENTS:

- (U) Provided funds for the following Force Protection Requirements at BUMED medical research laboratories:

- Security Specialist Salary
- Security Guards
- Communications (Radios, Cell Phones, Sateite Phones)
- Steel Security Bars on Entrances and Windows
- Disaster Alert System
- Maintenance/Upkeep of Steel Anti-Intrusion Doors
- Positive Access Denial System
- Closed Circuit TV Monitoring System
- Alarm System
- Metal Detectors
- Protective Equipment and Training
- Upgrade of Perimeter Walls and Doors
- Security Driver and Training / Overtime

R-1 Line Item 153
(Page 6 of 7)

Budget Item Justification

UNCLASSIFIED

UNCLASSIFIED

FY 2006 PRESIDENT'S BUDGET REVIEW

DATE: February 2005

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

1. (U) FY 2005 PLAN:

- (U) Continue to provide funds for Force Protection Requirements at BUMED medical research laboratories. Acquire/install and modernize test equipment, devices, and facilities for operational testing at the OPTEVFOR/NAVFAC North Island Air Station Test Bed. Test apparatus, instrumentation and support spaces for research and simulation testing of ATFP C4SI decision support at SPAWARCEN. Test devices and instrumentation for water-barrier research at NFESC. Develop 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. Conduct RDT&E studies and analyses for technology assessments, forecasting / mapping, and tradeoffs to determine optimum RDTE investment strategies (programs and projects) to achieve advanced anti-terrorism/force protection, operational effectiveness.

B. (U) PROGRAM CHANGE SUMMARY: See Program Change for PE

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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

APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE							
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-6	0605863N - RDT&E,N Ship and Aircraft Support							
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	80.730	80.526	77.131	79.730	78.868	81.049	83.099	85.164
0354 - RDT&E Ships Support	15.356	11.014	9.624	8.733	8.637	9.736	8.836	12.325
0568 - RDT&E Aircraft Flight Hours	26.336	26.256	32.205	33.478	28.868	29.685	30.461	31.334
0569 - RDT&E Aircraft Support	29.904	32.334	28.166	29.055	32.518	32.484	34.418	31.879
2924 - RDT&E Self Defense Test Ship	9.134	10.922	7.136	8.464	8.845	9.144	9.384	9.626

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This continuing program provides support for ships and aircraft required to accommodate Research, Development, Test and Evaluation (RDT&E) of new systems. The RDT&E ship and aircraft inventory is required to adequately test new and improved weapon systems, stay current with threats, and increase warfighting capability of the fleet. The program provides integrated logistics support for aircraft at selected field activities; provides depot-level rework of aircraft, engines, and components for the Navy inventory of RDT&E aircraft; and provides support for ships and aircraft bailed to contractors for Navy RDT&E projects. Costs covered under this element include aircrew training and proficiency, fuel, supplies, equipment, modification, repair, Aviation Depot Level Repairables (AVDLR), Special Flight 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.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605863N - RDT&E,N Ship and Aircraft Support			PROJECT NUMBER AND NAME 0354 - RDT&E Ship Support			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	15.356	11.014	9.624	8.733	8.637	9.736	8.836	12.325
RDT&E Articles Qty								

MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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

USS DOLPHIN will support software upgrades testing of the MK50 and MK48 Advanced Capability (ADCAP) torpedoes, the "VA Class" Submarine Material Qualification Program, ONR Littoral Warfare Advanced Development (LWAD) Program, Improved Extended Echo Ranging (IEER), Advanced Extended Echo Ranging (AEER), Advanced Deployable System (ADS), Submarine Mast Detection Radar (SMDR), Laser Airborne System - Hyperspectral (LASH), Airborne Low Frequency Sonar (ALFS), 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.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
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 0354 - RDT&E Ship Support

B. Accomplishments/Planned Program

	FY04	FY 05	FY 06	FY 07
USS DOLPHIN Ship Support				

	FY 04	FY 05	FY 06	FY 07
USS DOLPHIN Ship Support	15.356			

FY 2004 PLANS:
 The RAV/TAV started in FY 03 for repair and maintenance work which continues into FY 04 and depending on availability of material may complete in the 2nd qtr. of FY 05.

	FY 04	FY 05	FY 06	FY 07
USS DOLPHIN Ship Support		11.014		

FY 2005 PLANS:
 Plan to complete RAV 1-6 and repair TAV in 2nd 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.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005
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 0354 - RDT&E Ship Support

B. Accomplishments/Planned Program (Cont.)

	FY 04	FY 05	FY 06	FY 07
USS DOLPHIN SHIP SUPPORT			9.624	

FY 2006 Plans:
Plan on conducting perodic maintenance and procurement of material for future RAV and to support continued operations.

	FY 04	FY 05	FY 06	FY 07
				8.733

FY 2007 Plans:
Plans To continue supporting Fleet Operations.

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

UNCLASSIFIED

CLASSIFICATION:

			DATE:	
			February 2005	
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	0354 - RDT&E Ship Support		
C. PROGRAM CHANGE SUMMARY:				
Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY 2005 President's Budget	8.694	11.118	10.753	11.308
FY 2006/2007 President's Budget	15.356	11.014	9.624	8.733
Total Adjustments	6.662	-0.104	-1.129	-2.575
Summary of Adjustments				
Program Adjustments	6.564	-0.104	-1.129	-2.575
Schedule:				
Not Applicable				
Technical:				
Not Applicable				

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 0568 - RDT&E Aircraft Flight Hours			
COST (\$ in Millions)	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Project Cost	26.336	26.256	32.205	33.478	28.868	29.685	30.461	31.334
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.

UNCLASSIFIED

CLASSIFICATION:

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

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 0568 - RDT&E Aircraft Flight Hours
---	---	---

B. Accomplishments/Planned Program

	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost	26.336	26.256	32.205	33.478
RDT&E Articles Quantity				

Providing organizational and intermediate-level maintenance, supply and Petroleum, Oil and Lubricants (POL) in support of RDT&E aircraft operations. In FY04, we are currently meeting 86% of post-maintenance test flights, aircrew training, and proficiency flight hours requirements. Based on the budget control, FY05 plans are to provide 87% of these requirements; FY06 plans are to meet 86% of the requirements; and FY07 plans are to meet 79% of the requirements.

	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

	FY04	FY05	FY06	FY07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
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 0568 - RDT&E Aircraft Flight Hours			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY2004	FY2005	FY2006	FY2007
FY 2005 President's Budget		27.732	26.501	27.874	27.469
FY 2006/2007 President's Budget		26.336	26.256	32.205	33.478
Total Adjustments		-1.396	-0.245	4.331	6.009
Summary of Adjustments					
Congressional undistributed reductions			-0.240		
Program Adjustments			-0.005	0.218	2.185
Economic Assumptions		-0.056		4.113	3.824
Reprogrammings		-1.340			
Subtotal		-1.396	-0.245	4.331	6.009
Schedule:					
Not Applicable.					
Technical:					
Not Applicable.					

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 0569 - RDT&E Aircraft Support			
COST (\$ in Millions)	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Project Cost	29.904	32.334	28.166	29.055	32.518	32.484	34.418	31.879
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, modifications, 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, modification of in-service aircraft, 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.

UNCLASSIFIED

CLASSIFICATION:

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

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 0569 - RDT&E Aircraft Support
---	---	--

B. Accomplishments/Planned Program

	FY2004	FY2005	FY2006	FY2007
Accomplishments/Effort/Subtotal Cost	28.508	30.888	27.171	28.042
RDT&E Articles Quantity				

Continuing the transition from ASPA/SDLM/MCAPP to the IMC/PDM program for depot maintenance requirements, while sustaining the following programs: AVDLR/IMRL, engine, in-service repair support and modifications of aircraft 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.

	FY2004	FY2005	FY2006	FY2007
Accomplishments/Effort/Subtotal Cost	0.828	1.190	0.995	1.013
RDT&E Articles Quantity				

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.

	FY2004	FY2005	FY2006	FY2007
Accomplishments/Effort/Subtotal Cost	0.568	0.256	0.000	0.000
RDT&E Articles Quantity				

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 FY05-FY07 plans are to reduce this support and eventually cease funding the effort.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
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 0569 - RDT&E Aircraft Support			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY2004	FY2005	FY2006	FY2007
FY 2005 President's Budget		32.189	32.646	28.850	29.359
FY 2006/2007 President's Budget		29.904	32.334	28.166	29.055
Total Adjustments		-2.285	-0.312	-0.684	-0.304
Summary of Adjustments					
Congressional undistributed reductions			-0.305		
SBIR/STTR Transfer		-0.225			
Program Adjustments			-0.007	-0.412	-0.411
Economic Assumptions				-0.272	0.107
Reprogrammings		-2.060			
Subtotal		-2.285	-0.312	-0.684	-0.304
Schedule:					
Not Applicable					
Technical:					
Not Applicable.					

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	9.134	10.922	7.136	8.464	8.845	9.144	9.384	9.626
RDT&E Articles Qty								

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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

Current and projected Anti-Ship Cruise Missile (ASCM) threats require self-defense weapons systems capable of adequately countering ASCMs into the year 2001 and beyond. 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 plans call for testing PHALANX, Evolved Sea Sparrow Missile (ESSM), High Frequency Surface Wave Radar Advanced Technology Demonstration (ATD), the Rolling Airframe Missile (RAM), and future short-range Anti-Air Warfare systems against realistic threat presentation in an at-sea environment.

UNCLASSIFIED

CLASSIFICATION:

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

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
---	---	--

B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	9.134	0.000	0.000	0.000
RDT&E Articles Quantity				

Self Defense Test Ship conducted live fire operations at NAVAIRWARCENWPNDIV Point Mugu, CA. Live Fire testing included the RAM Helo Anti-Surface mode and the ESSM. NAVSURFWARCENDIV Port Hueneme, CA planned, scheduled and performed HM&E maintenance onboard SDTS in support of Long Pulse High Power Microwaves (HPM) System testing.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	10.922	0.000	0.000
RDT&E Articles Quantity				

Self Defense Test Ship (SDTS) will initiate the stripping of EDDG 31 (EX USS Decatur) and begin 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 the conversion.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	7.136	0.000
RDT&E Articles Quantity				

NAVSURFWARCENDIV Port Hueneme, CA will plan, schedule, and perform maintenance onboard EDD 964 and complete conversion of the Self Defense Test Ship (SDTS-R).

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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		
B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	8.464
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px; min-height: 80px;"> Self Defense Test Ship conducted live fire operations at NAVAIRWARCENWPNDIV Point Mugu, CA. Live Fire testing included the RAM Helo Anti-Surface mode and the ESSM. NAVSURFWARCENDIV Port Hueneme, CA planned, scheduled and performed HM&E maintenance onboard SDTS in support of Long Pulse High Power Microwaves (HPM) System testing. NAVSURFWARCENDIV Port Hueneme, CA will plan, schedule, and perform maintenance onboard EDD 964 and complete conversion of the Self Defense Test Ship (SDTS-R). </div>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000
RDT&E Articles Quantity				
<div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000	0.000
RDT&E Articles Quantity				
<div style="border: 1px solid black; height: 40px; margin-top: 10px;"></div>				

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005		
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			
C. PROGRAM CHANGE SUMMARY:					
Funding:		FY 2004	FY 2005	FY 2006	FY 2007
FY 2005 President's Budget		9.157	11.043	7.181	8.488
FY 2006/2007 President's Budget		9.134	10.922	7.136	8.464
Total Adjustments		-0.023	-0.121	-0.045	-0.024
Summary of Adjustments					
NAVSEA Civilian Personnel				-0.030	-0.050
Program Adjustments		-0.023	-0.121	-0.015	0.026
Subtotal		-0.023	-0.121	-0.045	-0.024
Schedule:					
Not Applicable					
Technical:					
Not Applicable					

R-1 SHOPPING LIST - Item No. 154

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /					R-1 ITEM NOMENCLATURE 0605864N Test and Evaluation Support			
					BA-6			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	255.908	255.507	320.133	329.921	342.136	351.918	362.022	372.354
0541 Atlantic Undersea Test and Evaluation Center	47.047	45.587	50.958	52.647	53.874	55.318	56.867	58.448
0566 NAVAIR Environmental Compliance	3.811	3.904	4.052	3.599	3.758	3.874	3.988	4.105
0653 Naval Air Warfare Center Weapons Division	107.420	110.043	147.638	152.647	158.847	163.413	168.083	172.857
0654 Naval Air Warfare Center Aircraft Division	77.899	77.903	98.266	101.549	105.680	108.693	111.870	115.122
2921 Pacific Missile Range Facility	2.110	2.131	4.358	4.191	3.887	3.986	4.085	4.185
2922 Maintenance and Repair	16.633	13.867	14.242	14.636	15.399	15.912	16.378	16.853
3029 T&E Policy Support	0.000	0.000	0.619	0.652	0.691	0.722	0.751	0.784
9094 Safety & Survivability Study of Protective Pumice Technology	0.000	2.072	0.000	0.000	0.000	0.000	0.000	0.000
9414 Omega Data Environment	0.988	0.000	0.000	0.000	0.000	0.000	0.000	0.000

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

This program provides institutional maintenance and operations support for: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTECE), Andros Island, Bahamas; the Naval Air Systems Command MRTFB 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; and Maintenance and Repair at NAVAIRWARCENWPNDIV and NAVAIRWARCENACDIV. 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.

The FY 2003 National Defense Authorization Act (NDAA) directed that, by FY 2006, DoD customers at T&E Facilities within the Major Range and Test Facility Base (MRTFB) be charged only for cost directly related to the use of those facilities. Budget reflects the implementation of the new rate policy beginning in FY06 through the FYDP. Realigns funds from the acquisition programs where T&E efforts are budgeted to the T&E facilities where the testing will be accomplished.

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 0541 Atlantic Undersea Test and Evaluation Center				
COST (\$ in Millions)			FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost			47.047	45.587	50.958	52.647	53.874	55.318	56.867	58.448
RDT&E Articles Qty										
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>This project provides continuing maintenance and operations support for the Atlantic Undersea Test and Evaluation Center (AUTEC), a Test and Evaluation (T&E) facility for collecting selected underwater, surface and air tracking data on test participants. NAVUNSEAWARCEN DET AUTEC, Andros Island, Bahamas, includes the Weapons Range, Shallow Water Range and Minefield, NATO Naval Forces Sensor & Weapon Accuracy Check Site, Weapons Acoustic Measurement Capability, and an Ocean Haul Down Facility for flow noise testing on large, buoyant bodies. The Weapons Range provides three-dimensional (undersea, surface and air) precision tracking capability in support of Anti-Submarine Warfare Developmental trials. The Shallow Water Range and Minefield provide similar three-dimensional tracking capability in water depths between 200 and 2,000 feet, plus a variety of moored and tethered mine-shaped targets. The NATO Fleet Operational Readiness Accuracy Check Site (FORACS) provides the capability to accurately calibrate and align electronic, optical, acoustic, and navigational systems installed on submarines, surface ships and helicopters. AUTEC also has a portable, 3-D tracking capability, the Buoyed Acoustic Real-Time Tracking System (BARTS). The NAVUNSEAWARCEN DET AUTEC at West Palm Beach, Florida provides technical expertise in tracking systems, liaison and test planning with range users, test scheduling, and logistics support.</p>										

R-1 SHOPPING LIST - Item No.

155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	25.404	23.588	27.525	28.688
RDT&E Articles Quantity				
<p>Maintain and operate core test support resources, instrumentation systems, and marine craft required to perform AUTEK's mission. Replenish spares inventory to minimum levels. Provide maintenance and repair efforts to perform high priority items deferred from previous years. Perform contract oversight and administration support on the AUTEK maintenance and operations support contract.</p>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	10.850	10.850	10.850	10.850
RDT&E Articles Quantity				
<p>Provide rental payments to the Bahamian government for use of land and ocean in the Bahamas.</p>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	10.793	11.149	12.583	13.109
RDT&E Articles Quantity				
<p>Provide civilian pay, travel, transportation, utilities/leases/rentals, communications, aircraft/ship/miscellaneous petroleum, oil, lubricants (POL), supplies, general and administrative efforts, and lease payments to the General Services Administration (GSA) for facilities at West Palm Beach, FL required to maintain and operate AUTEK resources and capabilities.</p>				

R-1 SHOPPING LIST - Item No.

155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005								
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									
(U) C. PROGRAM CHANGE SUMMARY:											
(U) Funding:		FY 2004	FY 2005	FY 2006	FY 2007						
FY 2005 President's Budget		47.375	46.008	46.612	47.651						
FY 2006/2007 President's Budget		47.047	45.587	50.958	52.647						
Total Adjustments		-0.328	-0.421	4.346	4.996						
Summary of Adjustments											
Congressional undistributed reductions			-0.412								
SBIR/STTR Transfer		-0.284									
Program Adjustments			-0.009	4.303	4.428						
Economic Assumptions		-0.044		0.043	0.568						
Subtotal		-0.328	-0.421	4.346	4.996						
Schedule: Not Applicable											
Technical: Not Applicable											
D. OTHER PROGRAM FUNDING SUMMARY:											
<u>Line Item No. & Name</u>		<u>FY 2004</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>
(U) P. E. 0604759, Major Test and Evaluation Investment											
E. ACQUISITION STRATEGY: Not Applicable											

R-1 SHOPPING LIST - Item No.

155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			0605864N Test and Evaluation Support			PROJECT NUMBER AND NAME 0566 NAVAIR Environmental Compliance			
COST (\$ in Millions)		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		3.811	3.904	4.052	3.599	3.758	3.874	3.988	4.105
RDT&E Articles Qty									
<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>									

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 0566 NAVAIR Environmental Compliance		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3.811	3.904	4.052	3.599
RDT&E Articles Quantity				
Continued UST remediations at Patuxent River. Continue the removal and disposal of PCB contaminated items at China Lake and Patuxent River. Continued upgrade of an oily waste/waste oil (OW/WO) management/recycle facility at Patuxent River. Continued refrigeration system replacement at China Lake's SKYTOP test area. Continued comprehensive air pollution meterology studies at Point Mugu.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005																																																																																																							
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6			PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support		PROJECT NUMBER AND NAME 0566 NAVAIR Environmental Compliance																																																																																																								
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">(U) Funding:</td> <td style="width: 10%; text-align: right;">FY 2004</td> <td style="width: 10%; text-align: right;">FY 2005</td> <td style="width: 10%; text-align: right;">FY 2006</td> <td style="width: 10%; text-align: right;">FY 2007</td> <td colspan="3"></td> </tr> <tr> <td>FY 2005 President's Budget</td> <td style="text-align: right;">3.952</td> <td style="text-align: right;">3.970</td> <td style="text-align: right;">4.030</td> <td style="text-align: right;">3.526</td> <td colspan="3"></td> </tr> <tr> <td>FY 2006/2007 President's Budget</td> <td style="text-align: right;">3.811</td> <td style="text-align: right;">3.904</td> <td style="text-align: right;">4.052</td> <td style="text-align: right;">3.599</td> <td colspan="3"></td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-0.141</td> <td style="text-align: right; border-top: 1px solid black;">-0.066</td> <td style="text-align: right; border-top: 1px solid black;">0.022</td> <td style="text-align: right; border-top: 1px solid black;">0.073</td> <td colspan="3"></td> </tr> <tr> <td colspan="8">Summary of Adjustments</td> </tr> <tr> <td style="padding-left: 20px;">Congressional undistributed reductions</td> <td></td> <td style="text-align: right;">-0.065</td> <td></td> <td></td> <td colspan="3"></td> </tr> <tr> <td style="padding-left: 20px;">Program Adjustments</td> <td></td> <td style="text-align: right;">-0.001</td> <td style="text-align: right;">-0.006</td> <td style="text-align: right;">-0.003</td> <td colspan="3"></td> </tr> <tr> <td style="padding-left: 20px;">Economic Assumptions</td> <td></td> <td></td> <td style="text-align: right;">0.028</td> <td style="text-align: right;">0.076</td> <td colspan="3"></td> </tr> <tr> <td style="padding-left: 20px;">Reprogrammings</td> <td style="text-align: right; border-top: 1px solid black;">-0.141</td> <td style="text-align: right; border-top: 1px solid black;">-0.066</td> <td style="text-align: right; border-top: 1px solid black;">0.022</td> <td style="text-align: right; border-top: 1px solid black;">0.073</td> <td colspan="3"></td> </tr> <tr> <td style="padding-left: 20px;">Subtotal</td> <td style="text-align: right;">-0.141</td> <td style="text-align: right;">-0.066</td> <td style="text-align: right;">0.022</td> <td style="text-align: right;">0.073</td> <td colspan="3"></td> </tr> </table> <p style="margin-left: 40px;">Schedule: Not Applicable</p> <p style="margin-left: 40px;">Technical: Not Applicable</p> <p>D. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Line Item No. & Name</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>FY 2006</u></th> <th style="text-align: center;"><u>FY 2007</u></th> <th style="text-align: center;"><u>FY 2008</u></th> <th style="text-align: center;"><u>FY 2009</u></th> <th style="text-align: center;"><u>FY 2010</u></th> <th style="text-align: center;"><u>FY 2011</u></th> <th style="text-align: center;"><u>To Complete</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) P. E. 0604759, Major Test and Evaluation Investment</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>E. ACQUISITION STRATEGY: Not Applicable</p>								(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007				FY 2005 President's Budget	3.952	3.970	4.030	3.526				FY 2006/2007 President's Budget	3.811	3.904	4.052	3.599				Total Adjustments	-0.141	-0.066	0.022	0.073				Summary of Adjustments								Congressional undistributed reductions		-0.065						Program Adjustments		-0.001	-0.006	-0.003				Economic Assumptions			0.028	0.076				Reprogrammings	-0.141	-0.066	0.022	0.073				Subtotal	-0.141	-0.066	0.022	0.073				<u>Line Item No. & Name</u>	<u>FY 2004</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>	(U) P. E. 0604759, Major Test and Evaluation Investment										
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007																																																																																																									
FY 2005 President's Budget	3.952	3.970	4.030	3.526																																																																																																									
FY 2006/2007 President's Budget	3.811	3.904	4.052	3.599																																																																																																									
Total Adjustments	-0.141	-0.066	0.022	0.073																																																																																																									
Summary of Adjustments																																																																																																													
Congressional undistributed reductions		-0.065																																																																																																											
Program Adjustments		-0.001	-0.006	-0.003																																																																																																									
Economic Assumptions			0.028	0.076																																																																																																									
Reprogrammings	-0.141	-0.066	0.022	0.073																																																																																																									
Subtotal	-0.141	-0.066	0.022	0.073																																																																																																									
<u>Line Item No. & Name</u>	<u>FY 2004</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>																																																																																																			
(U) P. E. 0604759, Major Test and Evaluation Investment																																																																																																													

R-1 SHOPPING LIST - Item No.

155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	107.420	110.043	147.638	152.647	158.847	163.413	168.083	172.857
RDT&E Articles Qty								
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
<p>Project provides continuing maintenance and operational support for the 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 Test and Evaluation (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, multiateration 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 full 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 not chargeable to customers. Funding included to incorporate the NANOOSE and DABOB Ranges located at Keyport, Washington, into the Major Range Test Facility Base (MRTFB).</p>								

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

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

(U) B. Accomplishments/Planned Program

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	47.848	47.979	48.538	50.321
RDT&E Articles Quantity				

Operate and maintain mission essential/core MRTFB capabilities to meet customer test workload. Fund civilian labor required to manage, operate, and maintain the MRTFB Test and Evaluation (T&E) facilities and ranges.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	6.129	6.614	15.799	15.377
RDT&E Articles Quantity				

Provide travel, transportation, collateral equipment, and supplies required to support continued operations of the MRTFB.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	25.302	27.450	44.069	47.082
RDT&E Articles Quantity				

Provide communications, purchased equipment maintenance, printing and reproduction, and purchased service contracts necessary to manage and sustain MRTFB operations.

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	25.013	24.879	25.284	25.669
RDT&E Articles Quantity				
Reimburse the Command for essential General and Administrative (G&A) support services and NMCI, (e.g., comptroller, contracting, personnel, and other services).				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3.128	3.121	3.000	3.051
RDT&E Articles Quantity				
Provide mission essential annual utility costs, equipment rentals, and land, building and facility leases.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.000	10.948	11.147
RDT&E Articles Quantity				
Funding included to incorporate the NANOOSE and DABOB Ranges located at Keyport, Washington, into the Major Range Test Facility Base (MRTFB).				

R-1 SHOPPING LIST - Item No.

155

(Page 10 of 26)

UNCLASSIFIED

Exhibit R-2a, RD TEN Project Justification

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005																																																																																																																																																								
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																																																																																																																																																									
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding-left: 20px;">(U) Funding:</td> <td style="width: 10%; text-align: right;">FY 2004</td> <td style="width: 10%; text-align: right;">FY 2005</td> <td style="width: 10%; text-align: right;">FY 2006</td> <td style="width: 10%; text-align: right;">FY 2007</td> <td colspan="3"></td> </tr> <tr> <td>FY 2005 President's Budget</td> <td style="text-align: right;">107.537</td> <td style="text-align: right;">111.044</td> <td style="text-align: right;">111.978</td> <td style="text-align: right;">114.422</td> <td colspan="3"></td> </tr> <tr> <td>FY 2006/2007 President's Budget</td> <td style="text-align: right;">107.420</td> <td style="text-align: right;">110.043</td> <td style="text-align: right;">147.638</td> <td style="text-align: right;">152.647</td> <td colspan="3"></td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-0.117</td> <td style="text-align: right; border-top: 1px solid black;">-1.001</td> <td style="text-align: right; border-top: 1px solid black;">35.660</td> <td style="text-align: right; border-top: 1px solid black;">38.225</td> <td colspan="3"></td> </tr> <tr> <td colspan="8" style="padding-left: 20px;">Summary of Adjustments</td> </tr> <tr> <td style="padding-left: 40px;">Congressional undistributed reductions</td> <td></td> <td style="text-align: right;">-0.978</td> <td></td> <td></td> <td colspan="3"></td> </tr> <tr> <td style="padding-left: 40px;">Program Adjustments</td> <td></td> <td style="text-align: right;">-0.023</td> <td style="text-align: right;">34.772</td> <td style="text-align: right;">35.618</td> <td colspan="3"></td> </tr> <tr> <td style="padding-left: 40px;">Economic Assumptions</td> <td style="text-align: right;">-0.100</td> <td></td> <td style="text-align: right;">0.888</td> <td style="text-align: right;">2.607</td> <td colspan="3"></td> </tr> <tr> <td style="padding-left: 40px;">Reprogrammings</td> <td style="text-align: right;">-0.017</td> <td></td> <td></td> <td></td> <td colspan="3"></td> </tr> <tr> <td style="padding-left: 40px;">Subtotal</td> <td style="text-align: right; border-top: 1px solid black;">-0.117</td> <td style="text-align: right; border-top: 1px solid black;">-1.001</td> <td style="text-align: right; border-top: 1px solid black;">35.660</td> <td style="text-align: right; border-top: 1px solid black;">38.225</td> <td colspan="3"></td> </tr> <tr> <td colspan="8" style="padding-left: 20px;">Schedule: Not Applicable</td> </tr> <tr> <td colspan="8" style="padding-left: 20px;">Technical: Not Applicable</td> </tr> </table> <p>D. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Line Item No. & Name</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2004</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2005</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2006</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2007</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2008</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2009</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2010</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2011</th> <th style="text-align: right; border-bottom: 1px solid black;">To Complete</th> <th style="text-align: right; border-bottom: 1px solid black;">Total Cost</th> </tr> </thead> <tbody> <tr> <td>(U) P. E. 0604759, Major Test and Evaluation Investment</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) P. E. 0604256N, Threat Simulator Development</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) P. E. 0604258N, Threat Systems Development</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) P. E. 0605863N, RDT&E Ship and Aircraft Support</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table> <p>E. ACQUISITION STRATEGY: Not Applicable</p>								(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007				FY 2005 President's Budget	107.537	111.044	111.978	114.422				FY 2006/2007 President's Budget	107.420	110.043	147.638	152.647				Total Adjustments	-0.117	-1.001	35.660	38.225				Summary of Adjustments								Congressional undistributed reductions		-0.978						Program Adjustments		-0.023	34.772	35.618				Economic Assumptions	-0.100		0.888	2.607				Reprogrammings	-0.017							Subtotal	-0.117	-1.001	35.660	38.225				Schedule: Not Applicable								Technical: Not Applicable								Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost	(U) P. E. 0604759, Major Test and Evaluation Investment											(U) P. E. 0604256N, Threat Simulator Development											(U) P. E. 0604258N, Threat Systems Development											(U) P. E. 0605863N, RDT&E Ship and Aircraft Support										
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007																																																																																																																																																										
FY 2005 President's Budget	107.537	111.044	111.978	114.422																																																																																																																																																										
FY 2006/2007 President's Budget	107.420	110.043	147.638	152.647																																																																																																																																																										
Total Adjustments	-0.117	-1.001	35.660	38.225																																																																																																																																																										
Summary of Adjustments																																																																																																																																																														
Congressional undistributed reductions		-0.978																																																																																																																																																												
Program Adjustments		-0.023	34.772	35.618																																																																																																																																																										
Economic Assumptions	-0.100		0.888	2.607																																																																																																																																																										
Reprogrammings	-0.017																																																																																																																																																													
Subtotal	-0.117	-1.001	35.660	38.225																																																																																																																																																										
Schedule: Not Applicable																																																																																																																																																														
Technical: Not Applicable																																																																																																																																																														
Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost																																																																																																																																																				
(U) P. E. 0604759, Major Test and Evaluation Investment																																																																																																																																																														
(U) P. E. 0604256N, Threat Simulator Development																																																																																																																																																														
(U) P. E. 0604258N, Threat Systems Development																																																																																																																																																														
(U) P. E. 0605863N, RDT&E Ship and Aircraft Support																																																																																																																																																														

R-1 SHOPPING LIST - Item No.

155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005		
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	77.899	77.903	98.266	101.549	105.680	108.693	111.870	115.122
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>This project provides funds for the maintenance and operations of the NAVAIRWARCENACDIV's capabilities to conduct test and evaluation and provide fleet support for air platforms. NAVAIRWARCENACDIV has extensive airfield, flight test ranges, aircraft systems test facilities and simulation laboratories to support aircraft 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 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 not chargeable to customers.</p>								

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	29.093	29.974	35.175	36.932
RDT&E Articles Quantity				
Operate and maintain mission essential/core MRTFB capabilities to meet customer test workload. Fund civilian labor required to manage, operate, and maintain the MRTFB Test and Evaluation (T&E) facilities and ranges.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4.588	4.048	9.606	9.498
RDT&E Articles Quantity				
Provide travel, transportation, collateral equipment, and supplies required to support continued operations of the MRTFB.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	24.993	24.660	34.006	35.482
RDT&E Articles Quantity				
Provide communications, purchased equipment maintenance, printing and reproduction, and purchased service contracts necessary to manage and sustain MRTFB operations.				

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	15.637	15.642	15.905	16.003
RDT&E Articles Quantity				
Reimburse the Command for essential General and Administrative (G&A) support services and NMCI, (e.g., comptroller, contracting, personnel, and other services).				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	3.588	3.579	3.574	3.634
RDT&E Articles Quantity				
Provide mission essential annual utility costs, equipment rentals, and land, building and facility leases.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005																																																																																																																																																														
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																																																																																																																																																														
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:45%; padding-left: 20px;">(U) Funding:</td> <td style="width:10%;"></td> <td style="width:10%; text-align: right;">FY 2004</td> <td style="width:10%; text-align: right;">FY 2005</td> <td style="width:10%; text-align: right;">FY 2006</td> <td style="width:10%; text-align: right;">FY 2007</td> <td colspan="5"></td> </tr> <tr> <td>FY 2005 President's Budget</td> <td></td> <td style="text-align: right;">77.971</td> <td style="text-align: right;">78.696</td> <td style="text-align: right;">78.424</td> <td style="text-align: right;">79.828</td> <td colspan="5"></td> </tr> <tr> <td>FY 2006/2007 President's Budget</td> <td></td> <td style="text-align: right;">77.899</td> <td style="text-align: right;">77.903</td> <td style="text-align: right;">98.266</td> <td style="text-align: right;">101.549</td> <td colspan="5"></td> </tr> <tr> <td>Total Adjustments</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">-0.072</td> <td style="text-align: right; border-top: 1px solid black;">-0.793</td> <td style="text-align: right; border-top: 1px solid black;">19.842</td> <td style="text-align: right; border-top: 1px solid black;">21.721</td> <td colspan="5"></td> </tr> <tr> <td colspan="11" style="padding-left: 20px;">Summary of Adjustments</td> </tr> <tr> <td style="padding-left: 40px;">Program Adjustments</td> <td></td> <td></td> <td style="text-align: right;">-0.016</td> <td style="text-align: right;">19.22</td> <td style="text-align: right;">19.902</td> <td colspan="5"></td> </tr> <tr> <td style="padding-left: 40px;">Economic Assumptions</td> <td></td> <td style="text-align: right;">-0.072</td> <td style="text-align: right;">-0.777</td> <td style="text-align: right;">0.622</td> <td style="text-align: right;">1.819</td> <td colspan="5"></td> </tr> <tr> <td style="padding-left: 40px;">Subtotal</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">-0.072</td> <td style="text-align: right; border-top: 1px solid black;">-0.793</td> <td style="text-align: right; border-top: 1px solid black;">19.842</td> <td style="text-align: right; border-top: 1px solid black;">21.721</td> <td colspan="5"></td> </tr> <tr> <td colspan="11" style="padding-left: 20px;">Schedule: Not Applicable</td> </tr> <tr> <td colspan="11" style="padding-left: 20px;">Technical: Not Applicable</td> </tr> </table> <p>D. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Line Item No. & Name</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2004</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2005</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2006</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2007</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2008</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2009</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2010</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2011</th> <th style="text-align: right; border-bottom: 1px solid black;">To Complete</th> <th style="text-align: right; border-bottom: 1px solid black;">Total Cost</th> </tr> </thead> <tbody> <tr> <td>(U) P. E. 0604759, Major Test and Evaluation Investment</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) P. E. 0604256N, Threat Simulator Development</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) P. E. 0605863N, RDT&E Ship and Aircraft Support</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table> <p>E. ACQUISITION STRATEGY: Not Applicable</p>											(U) Funding:		FY 2004	FY 2005	FY 2006	FY 2007						FY 2005 President's Budget		77.971	78.696	78.424	79.828						FY 2006/2007 President's Budget		77.899	77.903	98.266	101.549						Total Adjustments		-0.072	-0.793	19.842	21.721						Summary of Adjustments											Program Adjustments			-0.016	19.22	19.902						Economic Assumptions		-0.072	-0.777	0.622	1.819						Subtotal		-0.072	-0.793	19.842	21.721						Schedule: Not Applicable											Technical: Not Applicable											Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost	(U) P. E. 0604759, Major Test and Evaluation Investment											(U) P. E. 0604256N, Threat Simulator Development											(U) P. E. 0605863N, RDT&E Ship and Aircraft Support										
(U) Funding:		FY 2004	FY 2005	FY 2006	FY 2007																																																																																																																																																															
FY 2005 President's Budget		77.971	78.696	78.424	79.828																																																																																																																																																															
FY 2006/2007 President's Budget		77.899	77.903	98.266	101.549																																																																																																																																																															
Total Adjustments		-0.072	-0.793	19.842	21.721																																																																																																																																																															
Summary of Adjustments																																																																																																																																																																				
Program Adjustments			-0.016	19.22	19.902																																																																																																																																																															
Economic Assumptions		-0.072	-0.777	0.622	1.819																																																																																																																																																															
Subtotal		-0.072	-0.793	19.842	21.721																																																																																																																																																															
Schedule: Not Applicable																																																																																																																																																																				
Technical: Not Applicable																																																																																																																																																																				
Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost																																																																																																																																																										
(U) P. E. 0604759, Major Test and Evaluation Investment																																																																																																																																																																				
(U) P. E. 0604256N, Threat Simulator Development																																																																																																																																																																				
(U) P. E. 0605863N, RDT&E Ship and Aircraft Support																																																																																																																																																																				

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005			
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost			2.110	2.131	4.358	4.191	3.887	3.986	4.085	4.185
RDT&E Articles Qty										
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides continuing maintenance and operations support for Test & Evaluation (T&E) related capabilities at the Pacific Missile Range Facility (PMRF) located at Barking Sands on Kauai, HI. PMRF's T&E capabilities include precision radar and telemetry assets, the Mobile Aerial Target Support System (MATSS), and optical tracking systems. These assets support Navy, DOD, and Army Missile Defense Test & Evaluation. This project funds costs not chargeable to customers.</p>										

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 2921 Pacific Missile Range Facility		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.652	1.664	3.888	3.702
RDT&E Articles Quantity				
Operate and maintain mission core MRTFB assets to meet customer test workload.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.428	0.436	0.438	0.456
RDT&E Articles Quantity				
Provide civilian labor required to manage, operate, and maintain PMRF's MRTFB capabilities.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.030	0.031	0.032	0.033
RDT&E Articles Quantity				
Provide essential travel, transportation, and training to support the operations of the PMRF T&E capability.				

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005							
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 2921 Pacific Missile Range Facility								
(U) C. PROGRAM CHANGE SUMMARY:										
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007						
FY 2005 President's Budget	2.110	2.214	2.315	2.408						
FY 2006/2007 President's Budget	2.110	2.131	4.358	4.191						
Total Adjustments	<u>0.000</u>	<u>-0.083</u>	<u>2.043</u>	<u>1.783</u>						
Summary of Adjustments										
Congressional rescissions		-0.082								
Program Adjustments		-0.001	1.414	1.351						
Economic Assumptions			<u>0.629</u>	<u>0.432</u>						
Subtotal	<u>0.000</u>	<u>-0.083</u>	<u>2.043</u>	<u>1.783</u>						
Schedule: Not Applicable										
Technical: Not Applicable										
D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2004</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
(U) P. E. 0604759, Major Test and Evaluation Investment										
E. ACQUISITION STRATEGY: Not Applicable										

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	16.633	13.867	14.242	14.636	15.399	15.912	16.378	16.853
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>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 (W0654). 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>								

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 2922 Maintenance and Repair		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	16.633	13.867	14.242	14.636
RDT&E Articles Quantity				
Support mission critical emergency services, recurring maintenance and repair, and major repair efforts at the Naval Air Warfare Center Weapons.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 2922 Maintenance and Repair			
(U) C. PROGRAM CHANGE SUMMARY:						
(U) Funding:		FY 2004	FY 2005	FY 2006	FY 2007	
FY 2005 President's Budget		16.648	13.994	14.148	14.321	
FY 2006/2007 President's Budget		16.633	13.867	14.242	14.636	
Total Adjustments		-0.015	-0.127	0.094	0.315	
Summary of Adjustments						
	Congressional rescissions		-0.124			
	Program Adjustments		-0.003	-0.018	-0.012	
	Economic Assumptions	-0.015		0.112	0.327	
	Subtotal	-0.015	-0.127	0.094	0.315	
Schedule: Not Applicable						
Technical: Not Applicable						
D. OTHER PROGRAM FUNDING SUMMARY:						
<u>Line Item No. & Name</u>		<u>FY 2004</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) P. E. 0604759, Major Test and Evaluation Investment						
E. ACQUISITION STRATEGY: Not Applicable						

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification						DATE: February 2005		
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.000	0.000	0.619	0.652	0.691	0.722	0.751	0.784
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funds to support 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 S&T technologies required to support T&E of future acquisition programs.</p>								

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 3029 T&E Policy Support		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity	0.000	0.000	0.619	0.652
Provides funding for labor, material, and travel in support of the Test and Evaluation (T&E) policy and requirements validation for N43.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 3029 T&E Policy Support						
(U) C. PROGRAM CHANGE SUMMARY:								
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007				
FY 2005 President's Budget	0.000	0.000	0.000	0.000				
FY 2006/2007 President's Budget	0.000	0.000	0.619	0.652				
Total Adjustments	0.000	0.000	0.619	0.652				
Summary of Adjustments								
Program Adjustments			0.614	0.637				
Economic Assumptions			0.005	0.015				
Subtotal	0.000	0.000	0.619	0.652				
Schedule: Not Applicable								
Technical: Not Applicable								
D. OTHER PROGRAM FUNDING SUMMARY:								
<u>Line Item No. & Name</u>	<u>FY 2004</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) P. E. 0604759, Major Test and Evaluation Investment								
E. ACQUISITION STRATEGY: Not Applicable								

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005	
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	0.000	2.072	0.000	0.000	0.000	0.000	0.000	0.000
RDT&E Articles Qty								
<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>								

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605864N Test and Evaluation Support	PROJECT NUMBER AND NAME 9094 Safety & Survivability Study of Protective Pumice Technology		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity	0.000	2.072	0.000	0.000
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)				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

R-1 SHOPPING LIST - Item No. 155

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	12,137	12,917	13,101	12,150	12,555	12,818	13,088	13,365
R0831 OPTEVFOR SPT	11,666	12,442	12,611	11,661	12,049	12,301	12,559	12,824
R2923 NAVY JT&E SUPPORT	471	475	490	489	506	517	529	541

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, requiring greater technical expertise assessing technology maturity and viability of analysis tools and techniques. The CNO has a continuing need for expeditious and efficient conduct of operational test and evaluation (OT&E) by COMOPTEVFOR in support of training and equipping fleet forces. OT&E issues have direct long-term Navy-wide implications on the Fleet's readiness and war fighting capability. Rapid advances in technology, changes in fleet tactics, and increased complexity of weapons systems and platforms, combined with reductions in manpower, force structure, and budgets have created an increased need for technical and operational analyses that are sophisticated and timely in order to ensure an optimal return on investment of Navy resources. Funding is also provided for Navy support of the Office of the Secretary of Defense (OSD) sponsored Joint Test and Evaluation (JT&E) program.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2

DATE: Feb 2005

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

PROGRAM CHANGE SUMMARY:

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY 2005 President's Budget Submission	11,959	13,044	13,101	12,150
Cong Rescissions/Adjustments/Undist. Reductions	0	-124	0	0
Execution Adjustments	178	0	0	0
Non-Pay Inflation Adjustments	0	0	2	0
Program Adjustments	0	-3	-3	-2
Rate Adjustments	0	0	1	2
FY 2006/2007 President's Budget Submission	12,137	12,917	13,101	12,150

PROGRAM CHANGE SUMMARY EXPLANATION:

Technical: Not applicable.

Schedule: Not applicable.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605865N

PROJECT NUMBER: R0831

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

PROJECT TITLE: OPTEVFOR SPT

COST: (Dollars in Thousands)

Project Number & Title	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
R0831 OPTEVFOR SPT	11,666	12,442	12,611	11,661	12,049	12,301	12,559	12,824

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project 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 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, requiring greater technical expertise assessing technology 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 to ensure an optimal return on investment of Navy resources.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605865N

PROJECT NUMBER: R0831

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

PROJECT TITLE: OPTEVFOR SPT

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2004	FY 2005	FY 2006	FY 2007
OPTEVFOR SUPPORT	11,666	12,442	12,611	11,661

FY 2004 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.
- Supported the CNO's Sea Power 21 initiatives through continuous participation in Sea Trial and Sea Enterprise efforts.

FY 2005 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 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.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605865N

PROJECT NUMBER: R0831

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

PROJECT TITLE: OPTEVFOR SPT

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.

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605865N

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

PROJECT NUMBER: R2923

PROJECT TITLE: NAVY JT&E SUPPORT

Project	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Number & Title	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate

R2923 NAVY JT&E SUPPORT

	471	475	490	489	506	517	529	541
--	-----	-----	-----	-----	-----	-----	-----	-----

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 2004	FY 2005	FY 2006	FY 2007
JOINT TEST & EVALUATION	471	475	490	489

FY 2004 Accomplishments:

- Supported JT&E projects as directed by the JT&E Senior Advisory Council.

FY 2005 Plans:

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

UNCLASSIFIED

FY 2006/2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
Exhibit R-2a

DATE: Feb 2005

BUDGET ACTIVITY: 06

PROGRAM ELEMENT: 0605865N

PROJECT NUMBER: R2923

PROGRAM ELEMENT TITLE: OPERATIONAL TEST AND EVALUATION CAPABILITY

PROJECT TITLE: NAVY JT&E SUPPORT

FY 2006 Plans:

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

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 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /			BA-6	R-1 ITEM NOMENCLATURE 0605866N Navy Space and Electronic Warfare (SEW) Support				
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	\$3.1	\$2.9	\$2.8	\$3.0	\$3.0	\$3.1	\$3.2	\$3.3
0739 Navy C4I Top Level Requirements	\$1.3	\$1.1	\$1.0	\$1.1	\$1.1	\$1.1	\$1.1	\$1.1
0706 EMI Reduction and Radio Frequency Mgmt.	\$1.8	\$1.8	\$1.9	\$1.9	\$2.0	\$2.0	\$2.1	\$2.1
Quantity of RDT&E Articles								
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
Project 0739, Navy C4I Top Level Requirements - Provides analysis of both Fleet requirements and research and development technology, to develop top level plans for Navy Communications, Command, Control, Communication, Computer Intelligence (C4I), and space systems in the Space and Electronic Warfare mission area.								
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.								
(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. 157

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification									DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6		PROGRAM ELEMENT NUMBER AND NAME 0605866N Navy Space and Electronic Warfare (SEW) Supp				PROJECT NUMBER AND NAME 0739 Navy C4I Top Level Requirements					
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to Complete	Total	Total
Project Cost	\$1.299	\$1.066	\$0.970	\$1.096	\$1.054	\$1.091	\$1.116	\$1.146	Continuing		
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>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 Space and Electronic Warfare (SEW) mission area.</p>											

R-1 SHOPPING LIST - Item No. 157

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0605866N Navy Space and Electronic Warfare (SEW) Supp	PROJECT NUMBER AND NAME 0739 Navy C4I Top Level Requirements		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.299	1.066	0.970	1.096
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px;"> <p>(U) FY 2004</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; and 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. <p>(U) FY 2005 through FY 2007</p> <ul style="list-style-type: none"> • Conduct analyses of C4ISR and network performance to identify areas of greatest transformational impact on C4ISR performance and newly emerging capabilities and implementation issues. </div>				

R-1 SHOPPING LIST - Item No. 157

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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 0739 Navy C4I Top Level Requirements		
(U) C. PROGRAM CHANGE SUMMARY:				
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget: (FY 05 Pres Controls)	1.361	1.083	1.071	1.204
Current BES/FY06/07 President's Budget:(FY06/07 President's Controls)	<u>1.299</u>	<u>1.066</u>	<u>0.97</u>	<u>1.096</u>
Total Adjustments	-0.062	-0.017	-0.101	-0.108
Summary of Adjustments				
SBIR transfer	-0.037			
Programmatic Adjustments	-0.025	-0.017	0.005	0.005
Subtotal	-0.062	-0.017	0.005	0.005
(U) Schedule:				
Not Applicable				
(U) Technical:				
Not Applicable.				

R-1 SHOPPING LIST - Item No. 157

CLASSIFICATION:									
EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2005		
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		\$1.783	\$1.841	\$1.859	\$1.909	\$1.975	\$2.026	\$2.081	\$2.127
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 2005	
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				
	FY 04	FY 05	FY 06	FY 07
AESOP (Integrated CPM and EMCAP)	0.892	0.921	1.198	1.222
RDT&E Articles Quantity				
<p>(U) FY 2004 Developed applications that reside on the afloat computer infrastructure used by the Navy. The software is used for frequency planning to ensure operational use of any electromagnetic emitting systems are not a source or victim of interference. Afloat EM Spectrum Operations Program (AESOP) is an integration of the Communications Planning Module (CPM) for communications planning and Electromagnetic Compatibility Analysis Program (EMCAP) for radar and weapon systems frequency planning. This integration was done per fleet requirement and to support the FORCEnet concept of dynamic management and use of C4ISR resources.</p> <p>(U) FY 2005 - FY2007 Develop interfaces for AESOP, and other automated tools to interface with evolving network protocols and to ensure currency for web based applications. Develop new algorithms for automated tools for new Navy C4ISR systems for both government and commercial communication systems being used by the Navy.</p>				
	FY 04	FY 05	FY 06	FY 07
Automated Tools	0.143	0.147	0.661	0.687
RDT&E Articles Quantity				
<p>(U) FY 2004 Developed algorithms and conceptual models to support EMI reduction. An engineering concept was developed and evaluated for current probe technology to replace legacy HF antennas and thereby reduce interference effects.</p> <p>(U) FY 2005 Develop a multi band approach for current probe technology for multiple frequencies (HF, VHF, and UHF) that would eliminate 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 US Navy surface ships and shore commands.</p>				

R-1 SHOPPING LIST - Item No. 157

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005		
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				
	FY 04	FY 05	FY 06	FY 07
EMC	0.481	0.497	0.000	0.000
RDT&E Articles Quantity				
<p>(U) FY 2004 - FY 2005 Continue development of models to analyze antenna enhancements, and research the interference for below decks emitters such as wireless LANs to the topside and below decks environments. Research new technology efforts related to spectrum usage implementation of advanced capabilities that foster the implementation of cutting edge capabilities. Due to congested topside environment, develop recommended enhancements to antennas to reduce incidences of interference.</p>				
	FY 04	FY 05	FY 06	FY 07
EMC Criteria	0.267	0.276	0.000	0.000
RDT&E Articles Quantity				
<p>(U) FY 2004 C4I EMC Criteria : Incorporated commercial systems practices and standards into Electromagnetic Compatibility (EMC) C4I criteria and incorporated into Navy practices. (U) FY 2005 Assist battle group staffs and COCOMs in developing frequency management process improvements. Institutionalize 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. 157

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-6	0605866N SEW Support	0706 EMI Reduction and Radio Frequency Management		
(U) C. PROGRAM CHANGE SUMMARY:				
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007
FY05 President's Budget:	1.826	1.858	1.904	1.946
Current BCP/FY06 President's Budget	<u>1.783</u>	<u>1.841</u>	<u>1.859</u>	<u>1.909</u>
Total Adjustments	-0.043	-0.017	-0.045	-0.037
Summary of Adjustments				
SBIR transfer	-0.019			
Programmatic Adjustments	-0.024	-0.017	-0.045	-0.037
Subtotal	<u>-0.043</u>	<u>-0.017</u>	<u>-0.045</u>	<u>-0.037</u>
(U) Schedule:				
Not Applicable				
(U) Technical:				
Not Applicable				

R-1 SHOPPING LIST - Item No. 157

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2005		
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 2004</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	Topside Design /EMC						Various		
 * Not required for Budget Activities 1,2,3, and 6										

APPROPRIATION/BUDGET ACTIVITY RDT&E,N/6					R-1 ITEM NOMENCLATURE 0605867N Space & Electronic Warfare Surveillance/Reconnaissance Support					
COST (\$ in Millions)	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY10	FY11	Cost to Complete	Total Cost
Link Crimson/1034	\$10.656	\$12.024	\$13.030	\$13.274	\$13.572	\$13.902	\$14.228	\$14.523	CONT	CONT
Radiant Sunrise/9607		\$.983								

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) 1034: 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 2004 PLAN:
 - (U) (\$0.6) Joint Exercises/Training
 - (U) (\$0.4) Support to TBMD
 - (U) (\$2.0) Support to Littoral/Expeditionary Warfare
 - (U) (\$2.9) Precision Strike/Mission Planning
 - (U) (\$2.6) Improved Data Dissemination/Exploitation
 - (U) (\$1.3) Sensor Awareness/Mission Planning
 - (U) (\$0.9) Assured Communication/Navigation
2. (U) FY 2005 PLAN:
 - (U) (\$0.8) Joint Exercises/Training
 - (U) (\$0.6) Support to TBMD
 - (U) (\$2.0) Support to Littoral/Expeditionary Warfare
 - (U) (\$3.6) Precision Strike/Mission Planning
 - (U) (\$3.0) Improved Data Dissemination/Exploitation
 - (U) (\$1.0) Sensor Awareness/Mission Planning
 - (U) (\$1.0) Assured Communication/Navigation

3. (U) FY 2006 PLAN:

- (U) (\$0.6) Joint Exercises/Training
- (U) (\$0.6) Support to TBMD
- (U) (\$2.2) Support to Littoral/Expeditionary Warfare
- (U) (\$4.5) Precision Strike/Mission Planning
- (U) (\$3.3) Improved Data Dissemination/Exploitation
- (U) (\$1.1) Sensor Awareness/Mission Planning
- (U) (\$0.9) Assured Communication/Navigation

(U) 9607: FY2005 congressional add for Radiant Sunrise. The focus of this effort is to improve the responsiveness of tactical, theater, and national surveillance and reconnaissance systems to the information needs of combat commanders.

B. (U) PROGRAM SUMMARY CHANGE:

	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>
PB06	10.656	13.007	13.030	13.274	13.572	13.902	14.228	14.523
PB05	<u>11.956</u>	<u>12.160</u>	<u>13.212</u>	<u>13.467</u>	<u>13.729</u>	<u>14.001</u>	<u>14.284</u>	<u>14.571</u>
Total Adjustment	-1.300	.847	-.182	-.193	-.157	-.099	-.056	-.048

Summary of Adjustments:

Omnibus Reprogramming	-2.000							
Congressional Adjustments	0.000	.850						
Reprogramming	0.700	-0.003						
Programmatic Adjustment	<u>0.000</u>	<u>0.000</u>	<u>-0.182</u>	<u>-0.193</u>	<u>-0.157</u>	<u>-0.099</u>	<u>-0.056</u>	<u>-0.048</u>
Total Adjustments	-1.300	.847	-0.182	-0.193	-0.157	-0.099	-0.056	-0.048

(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. (U) OTHER PROGRAM FUNDING SUMMARY:

	<u>FY04</u>	<u>FY05</u>	<u>FY06</u>	<u>FY07</u>	<u>FY08</u>	<u>FY09</u>	<u>FY10</u>	<u>FY11</u>
O&M,N	.420	.436	.447	.457	.470	.482	.494	.507

UNCLASSIFIED

CLASSIFICATION:		EXHIBIT R-2, RDT&E Budget Item Justification					DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDTE, N /BA-6 Management Support		PROGRAM ELEMENT (PE) NAME AND NO. 0605873M Marine Corps Program Wide Support							
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Total PE Cost	25.930	31.024	28.224	32.651	36.650	64.993	75.259	76.078	
C0030 Marine Corps Studies and Analyses	6.576	7.215	6.096	6.133	6.355	6.518	6.728	6.854	
C0033 Marine Corps Operational Testing & Evaluation Activity	2.826	2.675	3.578	3.656	3.769	3.851	3.958	4.034	
C2330 Family of Incident Response Systems (FIRS)	10.146	9.175	7.463	10.966	14.155	12.044	12.401	12.638	
C2930 Phase A Activities	6.382	8.100	11.087	11.896	12.371	42.580	52.172	52.552	
C9608 Field Rapid Assay Bio Sys	0.000	2.472	0.000	0.000	0.000	0.000	0.000	0.000	
C9609 Odor Signature Red Baselayar Garment Eval	0.000	0.396	0.000	0.000	0.000	0.000	0.000	0.000	
C9610 USMC Cost of Readiness (COR) Initiatives	0.000	0.991	0.000	0.000	0.000	0.000	0.000	0.000	
Quantity of RDT&E Articles									
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:									
<p>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</p> <p>This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installation required for general research and development use.</p>									
B. PROGRAM CHANGE SUMMARY									
	<u>FY2004</u>	<u>FY2005</u>	<u>FY2006</u>	<u>FY2007</u>					
(U) FY 2005 President's Budget:	29.297	19.701	25.600	30.289					
(U) Adjustments from the President's Budget:									
(U) Congressional/OSD Program Reductions									
(U) Congressional Rescissions									
(U) Congressional Increases		11.700							
(U) Reprogrammings	-2.943		2.453	2.489					
(U) SBIR/STTR Transfer	-0.424								
(U) Program Adjustment		-0.377	0.171	-0.127					
(U) FY 2006 President's Budget:	25.930	31.024	28.224	32.651					
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 2005				
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	6.576	7.215	6.096	6.133	6.355	6.518	6.728	6.854
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 Master Plan (MCSMP) 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 front end of 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. The MCSS also 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 FY04, 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 CPAC tasks, within joint service and OSD/ATL CPAC specifications, standards and policies.

(U) B. ACCOMPLISHMENTS/PLANNED PROGRAM:

COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	4.103	4.930	5.191	5.232
RDT&E Articles Qty				

In FY04, continued the following FY-03 efforts: Marine Expeditionary Brigade (MEB) 2015, Joint Tactical Radio System (JTRS) Migration Strategy, Expeditionary Airfield (EAF), Establishing Time Criteria for Logistics Tasks, USMC Manpower Requirements Criteria, Light Armored Vehicle (LAV) Expeditionary Fire Support System (EFSS), Marine/Future Combat Systems (FCS) Technology Strategy, and the Remain Behind Equipment (RBE) Management studies.

Commenced the following FY-04 efforts: Lightweight Prime Mover; Flight Deck Manning for MPF(F) Aviation Capable Ships; Transformation of C4 Training, Manpower, and Structure to Support the 21st Century United States Marine Corps; Evaluation of USMC Operational Linguist Requirements & Resources; Operational Analysis of the Marine Air Ground Task Force (MAGTF) Distribution Center; Ammunition Logistics Chain; Developing an Optimal Strategy for Implementing Future Theater-Level Contractor Logistics Support (CLS); Review of Deployment Mobility Growth; Joint Warfare (JWARS) Support to 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; Ground Range and Training Area Management Analysis; and the Bulk Liquids Transportation Option studies.

Initiate the high priority study and analysis projects approved in the FY05-FY07 Marine Corps Studies Master Plan (MCSMP) and initiate new Analysis of Alternatives support as nominated and approved.

UNCLASSIFIED

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

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 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	1.091	0.897	0.905	0.901
RDT&E Articles Qty				

In FY05, Complete the USMC KC-130J Requirements effort. Initiate the following efforts: Expeditionary Information Operations; and Joint Strike Fighter Electronic Warfare Studies.

Initiate high priority study and analysis projects and studies nominated and approved in the FY2006 - FY2008 Marine Corps Studies System Master Plan (MCSSMP).

COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	1.382	1.388	0.000	0.000
RDT&E Articles Qty				

Provide Corrosion Control Program Support.

(U) Total \$ 0.000	6.576	7.215	6.096	6.133
--------------------	--------------	--------------	--------------	--------------

(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.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2005

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME			PROJECT NUMBER AND NAME				
RDT&E, N /BA-6 Management Support	0605873M Marine Corps Program Wide Support			C0033 Marine Corps Operational Testing & Evaluation Activity				
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	2.826	2.675	3.578	3.656	3.769	3.851	3.958	4.034
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 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.726	0.656	0.385	0.300
RDT&E Articles Qty				

MCOTEA: Provide for organizational support and utilities.

COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	1.621	1.819	3.010	3.144
RDT&E Articles Qty				

MCOTEA: Provide for organizational salaries.

COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.479	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.

(U) Total \$	2.826	2.675	3.578	3.656
--------------	-------	-------	-------	-------

(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.

R-1 SHOPPING LIST - Item No. 159

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2005

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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	
Project Cost	10.146	9.175	7.463	10.966	14.155	12.044	12.401	12.638	
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 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 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 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	1.963	1.032	4.608	4.750
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 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.000	0.200	0.425	0.500
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 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.000	0.350	0.500	0.500
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.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME			
RDT&E, N /BA-6 Management Support	0605873M Marine Corps Program Wide Support	C2330 Family of Incident Response Systems (FIRS)			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	
Accomplishment/Effort Subtotal Cost	0.000	0.100	0.150	0.200	
RDT&E Articles Qty					
FIRS: C4I Mission Area includes 1) technology assessments 2) field user evaluations 3) prototypes					
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	
Accomplishment/Effort Subtotal Cost	1.767	0.700	1.015	1.186	
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 2004	FY 2005	FY 2006	FY 2007	
Accomplishment/Effort Subtotal Cost	0.000	0.200	0.590	0.600	
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 2004	FY 2005	FY 2006	FY 2007	
Accomplishment/Effort Subtotal Cost	0.000	0.250	0.100	0.230	
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 2004	FY 2005	FY 2006	FY 2007	
Accomplishment/Effort Subtotal Cost	0.000	0.000	0.075	3.000	
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 2004	FY 2005	FY 2006	FY 2007	
Accomplishment/Effort Subtotal Cost	2.074	1.685	0.000	0.000	
RDT&E Articles Qty					
Multi-Sensor Analyzer Detector (MSAD) : 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 2004	FY 2005	FY 2006	FY 2007	
Accomplishment/Effort Subtotal Cost	1.925	2.577	0.000	0.000	
RDT&E Articles Qty					
Warefare Logistics Testbed: Integrate the latest planning technologies into individual, operationally focused, Web enabled planning solutions for assessment in operational environments.					
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	
Accomplishment/Effort Subtotal Cost	2.417	2.081	0.000	0.000	
RDT&E Articles Qty					
CB Warfare Agent Detector Chip : Development of chem/bio warfare agent chip detector .					
TOTAL	10.146	9.175	7.463	10.966	

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2005

APPROPRIATION/BUDGET ACTIVITY

PROGRAM ELEMENT NUMBER AND NAME

PROJECT NUMBER AND NAME

RDT&E, N /BA-6 Management Support

0605873M Marine Corps Program Wide Support

C2330 Family of Incident Response Systems (FIRS)

(U) C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY2008</u>	<u>FY2009</u>	<u>FY2008</u>	<u>FY2009</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) PMC Line (BLI# 652100) FIRS Family of Incident Response Systems	4.406	2.793								
(U) PMC Line (BLI# 667000) Items Under \$5 Million			3.304	4.432	6.844	7.162	7.401	7.543	Cont	Cont

(U) Related RDT&E: Not Applicable.

(U) D. ACQUISITION STRATEGY: Not Required.

(U) D. SCHEDULE PROFILE: Not Applicable.

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification					DATE: February 2005				
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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY10	FY11
Project Cost		6.382	8.100	11.087	11.896	12.371	42.580	52.172	52.552
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 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) base lining POM initiatives, (6) planning requirements support of evolutionary acquisition, (7) facilitating user/advocate interaction to better understand what is needed and how it will be used, and (8) supporting the Marine Requirements Oversight Council (MROC)-directed tailoring Council (MROC)-directed tailoring Authorized Acquisition Objective (AAO). 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 materiel solutions to validate needs, estimate program costs, support sound business decisions, correct inherent disconnects between the Programming, Planning, Budgeting System (PPBS) cycle, the Combat Development and Acquisition Management Systems, and prevent undue delays in pursuing priority requirements. The process supports Commanding General (CG), MCCDC and Commander, Marine Corps Systems Command (COMMARCORSSYSCOM) by providing funding to priority programs, thus allowing for the examination of concepts and alternatives to support an orderly transition from requirements to initiatives and initiatives to funded programs. This will permit the POM process to focus on activities of evaluating, prioritizing and integrating rather than defining and resolving raw, immature requirements. Phase A activities literally "jump start" high priority programs of the acquisition process. Furthermore, since 70% of a program's life cycle cost is determined during Phase A, this initiative will put resources to work where the return on investment (payoff) is the greatest. Typical studies conducted with Phase A activities include but 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> <p>MAGTF Expeditionary Family of Fighting Vehicles (MEFFV): The MAGTF Expeditionary Family of Fighting Vehicles (MEFFV) Project will field future capabilities currently met by the Marine Corps' fleet of M1A1 Common Main Battle Tanks (MBT) and the Light Armored Vehicle (LAV) Family of Vehicles (FOVs). The MEFFV will provide Ground Combat Elements (GCE) of the Marine Air Ground Task Force (MAGTF) with a principal means of operational and tactical maneuver/mobility. The vehicle family will be designed specifically to complement the Expeditionary Fighting Vehicle (EFV) and the MV-22 aircraft in providing the capability needs of combat operations ashore within the Navy and Marine Corps capstone operational concept of Expeditionary Maneuver Warfare (EMW). The MEFFV will provide the MAGTF with the capability to execute combat, combat support and select combat service support within the full spectrum of military missions from humanitarian operations to conventional conflict. The project intends to leverage key technologies in combat vehicle development to produce a family of vehicles, replacing the current LAV and MBT as they reach End of Service (EoS) life in 2015 and 2020 respectively. The MEFFV family of vehicles will provide the capabilities necessary to provide warfighting Combatant Commanders the early forces needed to win on future battlefields.</p>									

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2005		
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	
<p>Acquisition of the MEFFV is critical to the Marine Corps and the project is a high priority GCE Advocate acquisition initiative. To satisfy the requirements of the 21st Century Marine Warfighters, the MEFFV Project will comply with the Joint Capability Integration and Development System in establishing a pre-systems acquisition framework specifically tailored to co-evolve leap ahead technologies with expeditionary operational concepts. This process will use 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. Oversight from the Deputy Commandant for Combat Development will guide this Pre-systems Acquisition framework to align institutional needs and resources with technological and operational opportunities. During the timeframe (2004-2010) 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 the Initial Capabilities Document (ICD) and the Capabilities Development Document (CDD). During this period, development of draft performance specifications will be generated in preparation of the life-cycle estimates leading to a Milestone B decision in 2010. This budget item will concurrently fund vehicle related activities leading to definition of a Future Combat Systems Marine Increment, complying with JROC and USD AT&L guidance to participate in a Joint Program with the Army's Future Combat Systems Program.</p> <p>(U) ACCOMPLISHMENTS/PLANNED PROGRAM:</p>				
COST (\$ in Millions)	FY 2004	FY 2005	FY06	FY07
Accomplishment/Effort Subtotal Cost	2.419	2.472	2.572	2.616
RDT&E Articles Qty				
<p>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.</p>				
COST (\$ in Millions)	FY 2004	FY 2005	FY06	FY07
Accomplishment/Effort Subtotal Cost	1.624	0.000	0.000	0.000
RDT&E Articles Qty				
<p>Provides for the conduct of high priority Pre-Phase A Activities for Clear Facilities Ground Weapons Locating Radar, PROFILER Meteorological Measuring Set, Thermobaric Weapon, Reconnaissance Surveillance Target Acquisition, Squad Advanced Marksman, Rifle Combat Optic (analysis of Alternatives/Operational Mode Summary/Mission Profile). War Reserve Materiel Requirement Development. Radio Migration Study.</p>				
COST (\$ in Millions)	FY 2004	FY 2005	FY06	FY07
Accomplishment/Effort Subtotal Cost	1.124	1.674	2.151	2.314
RDT&E Articles Qty				
<p>Force Design Trades: Employ the Joint Capability Integration and Development System to derive roles, capability needs and attributes of MAGTF armor units performing in future service and joint operational concepts. Complete Functional Area Analysis (FAA), Functional Need Analysis (FNA), Functional Solution Analysis (FSA) and Concept Decision for Armored MAGTF Operations. Develop MEFFV mission profiles and operational mode summary. Develop an Evaluation Strategy providing metrics for the needed capabilities. Provide personnel and travel necessary to participate in FCS Increment I System Requirements Reviews and planning for FCS Spiral definition subsequent to FCS Increment I.</p>				

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification		DATE:		
		February 2005		
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		
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.300	0.433	0.852	0.901
RDT&E Articles Qty				
Technology Assessments: Initiate assessments not limited to but including lethality, propulsion/tactical mobility, and survivability, both active and passive. Conduct market research. Assess lethality system technology opportunities to evaluate their maturity and impact on effectiveness. Assess target acquisition systems and targeting methodologies. Assess design architecture with higher component commonalities and assess the Future Combat Systems (FCS) program. Monitor Functional Naval Capabilities (FNC) developments for component commonality opportunities. Explore survivability initiatives through service and joint wargames and experiments. Initiate risks studies.				
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007
Accomplishment/Effort Subtotal Cost	0.205	0.500	0.501	0.864
RDT&E Articles Qty				
Systems Integration Plan: Initiate framework for the necessary capability (functional) integration activities to evaluate design trades and prepare for Systems Development and Demonstration tasks. Establish a database compatible with both the Expeditionary Force Development System for DOTMLPF Integration and the Army's FCS Systems Integration methodologies for MEFFV design integration. Develop modeling and simulation approach and determine feasibility of simulation-based acquisition. Populate MEFFV system integration databases, based on capability options for meeting Expeditionary Maneuver Warfare (EMW) capability needs. Employ service and joint experiments and wargames to evaluate design excursions. Examine risk mitigation methodologies. Build business technology evaluation plan and strategy for measuring progress.				
COST (\$ in Millions)	FY 2004	FY 2005	FY06	FY07
Accomplishment/Effort Subtotal Cost	0.710	1.175	1.098	1.170
RDT&E Articles Qty				
Office and Acquisition Analysis: Fund capabilities, acquisition and technology team documentation development and coordinate successive integration of activities. Administrative support, (Systems Engineering and Technical Assistance (SETA))/contractor support. Project office travel, training and office materials.				
COST (\$ in Millions)	FY 2004	FY 2005	FY06	FY07
Accomplishment/Effort Subtotal Cost	0.000	1.846	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.				
(U) Total \$	6.382	8.100	11.087	11.896

UNCLASSIFIED

EXHIBIT R-2a, RDT&E Project Justification

DATE:

February 2005

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) 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.

CLASSIFICATION:								
EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2005	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /				BA-6	R-1 ITEM NOMENCLATURE 0804758N - Joint Information Operations Integrated Test Range Infrastructure			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	0.000	0.000	10.000	10.300	10.600	10.900	11.200	11.600
3152 - Joint Integrated Information Operations Range (JIOR)	0.000	0.000	10.000	10.300	10.600	10.900	11.200	11.600
Quantity of RDT&E Articles								
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program supports an FY04 directive that 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 operationalizing 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>This project supports the FY 2003 DoD Information Operations (IO) roadmap.</p>								

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005	
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)		
(U) B. Accomplishments/Planned Program				
	FY 04	FY 05	FY 06	FY 07
JIIOR Management	0.000	0.000	1.050	1.068
RDT&E Articles Quantity				
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.				
	FY 04	FY 05	FY 06	FY 07
JIIOR Network Architecture			4.780	2.650
RDT&E Articles Quantity				
USJFCOM will implement a standing Information Operations network connecting high-use sites that support quick creation of logical ranges for distributed events and permits secure, unrestricted communications and will demonstrate connectivity of initial ten (10) sites supporting IO . Follow-on efforts will continue to expand range connectivity. FY 2004 JPG directs connectivity with a minimum of 20 sites by FY 2011				
	FY 04	FY 05	FY 06	FY 07
JIIOR Technology Development and Modernization			3.100	4.720
RDT&E Articles Quantity				
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.				
	FY 04	FY 05	FY 06	FY 07
JIIOR Event Event Planning and Sustainment Support			1.070	1.862
RDT&E Articles Quantity				
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.				

R-1 SHOPPING LIST - Item No. 160

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2005																					
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6	PROGRAM ELEMENT NUMBER AND NAME 0804758N - Joint Information Operations Integrated Test Range Infrastructure	PROJECT NUMBER AND NAME 3152 - Joint Integrated Information Operations Range (JIOR)																						
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">(U) Funding:</th> <th style="text-align: right; padding: 5px;">FY 2004</th> <th style="text-align: right; padding: 5px;">FY 2005</th> <th style="text-align: right; padding: 5px;">FY 2006</th> <th style="text-align: right; padding: 5px;">FY 2007</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">FY05 President's Budget</td> <td style="text-align: right; padding: 5px;">0.000</td> <td style="text-align: right; padding: 5px;">0.000</td> <td style="text-align: right; padding: 5px;">0.000</td> <td style="text-align: right; padding: 5px;">0.000</td> </tr> <tr> <td style="padding: 5px;">FY06 President's Budget</td> <td style="text-align: right; padding: 5px;">0.000</td> <td style="text-align: right; padding: 5px;">0.000</td> <td style="text-align: right; padding: 5px;">10.000</td> <td style="text-align: right; padding: 5px;">10.300</td> </tr> <tr> <td style="padding: 5px;">Total Adjustments</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">0.000</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">0.000</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">10.000</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">10.300</td> </tr> </tbody> </table> <p style="margin-left: 40px; padding: 10px 0 0 0;">Summary of Adjustments Realignment of program funding associated with the integration of IO ranges from RDT&E Defense Wide (PE 0305193D) to RDT&E Navy (PE 0804758N)</p> <p style="margin-left: 40px; padding: 10px 0 0 0;">(U) Schedule: Not Applicable</p> <p style="margin-left: 40px; padding: 10px 0 0 0;">(U) Technical: Not Applicable</p>					(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007	FY05 President's Budget	0.000	0.000	0.000	0.000	FY06 President's Budget	0.000	0.000	10.000	10.300	Total Adjustments	0.000	0.000	10.000	10.300
(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007																				
FY05 President's Budget	0.000	0.000	0.000	0.000																				
FY06 President's Budget	0.000	0.000	10.000	10.300																				
Total Adjustments	0.000	0.000	10.000	10.300																				

CLASSIFICATION:												
Exhibit R-3 Cost Analysis (page 1)										DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-6				PROGRAM ELEMENT 0804758N - Joint Information Operations Integrated Test Range In				PROJECT NUMBER AND NAME 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				3.468	10/05	3.148	10/06	Continuing	Continuing	0.000
Ancillary Hardware Development	Various	IO Ranges				0.564	10/05	0.507	10/06	Continuing	Continuing	0.000
Systems Engineering	Various	IO Ranges				1.230	10/05	1.050	10/06	Continuing	Continuing	0.000
Licenses	Various	USJFCOM				0.098	10/05	0.050	10/06	Continuing	Continuing	0.000
Tooling											0.000	0.000
GFE											0.000	0.000
Award Fees											0.000	0.000
Subtotal Product Development			0.000	0.000		5.360		4.755		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	10/05	0.225	10/06		0.425	0.000
Software Development	Various	IO Ranges				1.800	10/05	1.845	10/06	Continuing	Continuing	0.000
Training Development	Various	IO Ranges				0.400	10/05	0.415	10/06	Continuing	Continuing	0.000
Integrated Logistics Support	Various	IO Ranges				0.120	10/05	0.130	10/06	Continuing	Continuing	0.000
Configuration Management	Various	USJFCOM				0.080	10/05	0.081	10/06	Continuing	Continuing	0.000
Event Planning	Various	USJFCOM				0.370	10/05	0.532	10/06	Continuing	Continuing	0.000
Event Execution	Various	USJFCOM				0.620	10/05	1.249	10/06	Continuing	Continuing	0.000
Subtotal Support			0.000	0.000		3.590		4.477		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.												

R-1 SHOPPING LIST - Item No. 160

CLASSIFICATION:												
Exhibit R-3 Cost Analysis (page 2)										DATE: February 2005		
APPROPRIATION/BUDGET ACTIVITY				PROGRAM ELEMENT				PROJECT NUMBER AND NAME				
RDT&E, N / BA-6				0804758N - Joint Information Operations Integrated Test Range Infrastru				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	10/05	0.625	10/06	Continuing	Continuing	0.000
Government Engineering Support	Various	USJFCOM				0.360	10/05	0.368	10/06	Continuing	Continuing	0.000
Program Management Support										0.000	0.000	0.000
Travel	Various	USJFCOM				0.075	10/05	0.075	10/06	Continuing	Continuing	0.000
Subtotal Management			0.000	0.000		1.050		1.068		0.000	2.118	0.000
Remarks:												
Total Cost			0.000	0.000		10.000		10.300		Continuing	Continuing	0.000
Remarks:												