FY 2001 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: February 2000

BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603238N
PROGRAM ELEMENT TITLE: Global Surveillance/Precision Strike and Air Defense Technology

(U) COST: (Dollars in Thousands)

PROJECT NUMBER/ TITLE	FY 1999 ACTUAL	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R2145 Global Surveillance/Precision Strike and Air Defense Technology	46,798	47,582	63,780	60,074	57,512	57,144	56,194	CONT.	CONT.
R2266 Mobile Offshore Basing (MOB)	4,856	0	0	0	0	0	0	0	37,188
R0834 Naval Science Assistance Program (NSAP)	4,806	4,688	4,775	4,943	4,841	4,821	4,783	CONT.	CONT.
R2371 Littoral Airborne Sensor/Hyperspectral (LASH)	11,711	11,933	0	0	0	0	0	0	35,048
R2701 LASH Study	0	994	0	0	0	0	0	0	0
R2703 Extending The Littoral Battlespace	0	5,967	0	0	0	0	0	0	0
R2704 Hybrid LIDAR	0	1,989	0	0	0	0	0	0	0
Z2702 Small Combatant Craft	0	11,933	0	0	0	0	0	0	0
TOTAL	68,171	85,086	68,555	65,017	62,353	61,965	60,977	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program focuses Science and Technology (S&T) resources in the areas of Precision Strike and Air Superiority/Defense in support of the Joint Chiefs of Staff's top five Joint Warfighting Capabilities and the following Joint Mission Areas (JMAs): Strike, Littoral Warfare, Intelligence, Surveillance & Reconnaissance, Nuclear Deterrence, and Sea & Air Superiority. Effective modern warfare in the littorals demands simultaneous execution of these mission areas and requires information transfer and interoperability of multi-mission systems.

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(U) Precision Strike is enabled by the integration of Command & Control, surveillance, and targeting capabilities developed in the Global Surveillance Area, and is implemented by high-speed processing and precision weapons for rapid response against high-value, short-dwell targets over extended ranges. The projection of power and Strike elements to defend military and civilian assets ashore using Maritime Forces is a key element for Littoral Warfare. The requirements can only be fulfilled with: careful correlation of intelligence and other indications and warnings, detection systems which can maintain track of ground targets, methods of identification of targets and hostile intent, command and weapon control systems (to include ability for real-time re-targeting), rapid response and time critical Strike weapons, as well as effective and efficient fire support weaponry. This program supports elements of the Fleet and Force Commanders' top Command Capability Issues (CCIs): Flexible Targeting, Battlespace Connectivity and Common Tactical Picture, and Integrated Fire Support.

(U) Extending the Littoral Battlespace (ELB) is an Advanced Concept Technology Demonstration which responds to the top level military need to rapidly deploy a Naval Expeditionary Task Force with an embarked Marine Air Ground Task Force (MAGTF). This MAGTF, as part of a larger Joint Task Force, is required to deploy to any region of the world's littorals and conduct military operations from a sea base across the spectrum of conflict to implement national military strategy. Forces employed ashore will be light, agile, distributed and dis-aggregated and capable of optimizing remote fires, to effectively deter aggression, halt attacks and secure critical areas as a precursor to a much larger force. Forces will be empowered by unprecedented situation understanding via a robust information infrastructure that is fully coupled to a decision/planning/execution system on a shared battlespace network (sea/land). The objective of the Advanced Concept Technology Demonstration is to demonstrate an enhanced integrated command and control/fires and targeting capability to enable rapid employment, maneuver, and fires to support joint dispersed units operating in an extended littoral battlespace. Two Major System Demonstrations will be executed: one completed in FY-99 and one planned for FY01. The ELB ACTD was approved by Deputy Under Secretary of Defense (Acquisition and Technology) (DUSD (AT) on 16 January 1997.

(U) Air Defense/Air Superiority for at-sea operations and Littoral Warfare requires the development and demonstration of Detect, Control, Engage capabilities within a fully integrated, Joint Battle Management, Command, Control and Communications architecture. These capabilities must be operational in all weather, day/night, at-sea/over-land, and electronic countermeasure environments. Modern threats (targeted at sea and shore units) which must be detected, identified (accurately), and efficiently engaged include: manned aircraft, cruise missiles (including supersonic sea-skimmers and maneuvering land attack variants), helicopters, unmanned aerial vehicles, and tactical ballistic missiles. Variants of these

could be Weapons of Mass Destruction. All of the above could employ stealth techniques, decoys, and other countermeasures to negate detection and/or engagement.

(U) Cruise Missile Defense (CMD)/Theater Air and Missile Defense (TAMD) is a continuation/evolution of a program initiated in FY 1994. An 18 May 1998 Joint Mission Assessment (JMA) panel verified the Navy Mission of CMD/TAMD over land as well as at sea. This program consists of the following segments. (1) The CMD Phase I "Mountain Top" ACTD (completed January 1996) demonstrated that an AEGIS ship (or other surface/ ground based missile launch platform), using one or more surrogate airborne sensor partners and Cooperative Engagement Capability, can provide greatly expanded air defense capability to engage air targets beyond the surface/ground based radar line of sight. (2) The CMD Phase II program (FY-96 to FY-99) aligned technology for the advanced E-2C Airborne Early Warning radar system and STANDARD Missile programs leading to a fielded CMD capability. It balanced cost, schedule, and risk across multiple technology programs, while initiating advanced missile technology efforts to develop and demonstrate engagement capabilities against next generation cruise missiles and all other air threats. (3) The Phase III program (FY-00 to FY-06) focuses technology associated with the full "system of systems" which will lead to future Naval capability in Missile Defense. It will optimize the performance of science and technology products to detect, identify, perform fire control, and intercept Cruise Missile, Theater Ballistic Missile, and other theater air threats through the use of risk reduction and integrating tools which are compatible with Navy, Joint Service and International TAMD systems.

(U) Mobile Offshore Basing (MOB) effort established the basis for a determination of technical feasibility and cost of a very large floating platform comprised of interconnected modules, assembled on site to provide support to U.S. military activities in areas lacking in adequate basing structure. Mission Requirements and Performance Measures were developed based on concerns over minimizing, or even eliminating, dependence on overseas military bases. Standards and Criteria for design were developed by modifying existing commercial standards with new design methods and specialized building blocks complimented by military standards to develop a MOB Classification Guide. Design Tools effort developed a new generation of efficient hydrodynamic motion prediction models which have up to 1000 times greater capability. These hydrodynamic motion methods were coupled with a new universal ship structural deflection response prediction method. Comprehensive validation experiments are underway. Alternative Platform Concept preliminary designs were conducted for four different MOB platform concepts of 5000-foot length capable of C-17 air cargo operations; as well ad developed the subsystem components critical to MOB feasibility. These platform concepts include Hinge Interconnected Semi-submersible Modules, Semi-submersible Modules Interconnected by Flexible Bridges, Independent Semi-submersile Modules without inter-module connectors but held in place by dynamic positioning, and

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Concrete Material Interconnected Semi-submersible Modules. Subsystem components developed were Intermodule Connectors, Dynamic Positioning Systems, Construction and Repair Methods, and Open Ocean Ship Cargo Transfer methods.

(U) Naval Science Assistance Program (NSAP): This program enables S&T to be moved to the operational Fleet/Force rapidly, leverages long-term S&T investments to meet operational capability needs, and provides a method for the Research Development Test and Evaluation community to surge in response to real world crises. The program accomplishes this through several methods. It provides on the spot Science and Technology Advisors (STAs) and Representatives (STRs) to Joint, Navy, and Marine Corps operational and strategic planning commands worldwide. It also develops a compendium of mature technologies, not yet in the acquisition portfolio, for Fleet/Force Commander early evaluation and concurrent development of new tactics and operational concepts. In addition, NSAP facilitates and disseminates CCIs provided by the Fleet/Force Commanders to the Director of Navy Test and Evaluation and Technology Requirements (OPNAV N091). Lastly, NSAP collaborates with the Fleet/Force to identify specific solutions to known operational capability needs and provides the means to develop and demonstrate prototype systems. The result is that NSAP provides insight into issues associated with Naval Warfighting Capabilities, thereby influencing long term S&T programs. The program also develops a cadre of civilian scientists and engineers who, upon completion of their NSAP STA/STR tours, return to the Naval technical community with first hand knowledge of the Fleet/Force and warfighting issues. NSAP enables a continuous collaboration between the warfighters, the technical community, and strategic development commands.

(U) Littoral Airborne Sensor/Hyperspectral is a modular airborne imagining sensor system with an integrated navigation and control system. Operating in visible and near infrared spectrums, LASH collects hyperspectral imagery using many spectral channels (colors) to exploit subtle color features associated with targets of interest. Developed as a pod-mounted system, LASH can be operated from a P-3C Orion, or other platforms in support of Anti-Submarine Warfare mine detection, passive bathymetry, near shore mapping, and land-based detection, discrimination and targeting.

(U) The Navy S&T program includes projects that focus on or have attributes that enhance the affordability of warfighting systems.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is budgeted within the ADVANCED TECHNOLOGY DEVELOPMENT Budget Activity because it encompasses design, development, simulation, or experimental testing or prototype hardware to validate

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technological feasibility and concept of operations and reduce technological risk prior to initiation of a new acquisition program or transition to an ongoing acquisition program.

(U) PROGRAM CHANGE FOR TOTAL P.E.:

	FY 1999	FY 2000	FY 2001
FY 2000 President's Budget:	69,466	52,580	67,678
Appropriated Value:	-	85,580	-
Adjustments from FY 2000 PRESBUDG:			
SBIR/STTR Transfer	-1,084	0	0
Execution Adjustments	+89	0	0
Various Rate Adjustments	-300		-768
Program Adjustments		0	+1,645
Congressional Plus-ups		+32,933	
Congressional Rescissions	0	-494	
FY 2001 President's Submission:	68,171	85,086	68,555

(U) CHANGE SUMMARY EXPLANATION:

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BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603238N
PROGRAM ELEMENT TITLE: Global Surveillance/Precision Strike and Air Defense Technology

(U) Schedule: Not applicable
(U) Technical: Not applicable

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BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603238N
PROGRAM ELEMENT TITLE: Global Surveillance/Precision Strike and Air Defense Technology

(U) COST: (Dollars in Thousands)

PROJECT NUMBER/ TITLE	FY 1999 ACTUAL	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R2145 Global Surveillance/Precision Strike and Air Defense Technology	46,798	47,582	63,780	60,074	57,512	57,144	56,194	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Effective modern warfare in the littorals demands simultaneous execution of Surveillance, Strike and Air Defense Mission areas and requires information transfer and interoperability of multi-mission systems.

(U) The Precision Strike and Air Superiority projects develop and demonstrate all/weather, day/night capability to support forces ashore through the use of ground surveillance, Strike warfare command and decision systems, advanced propulsion and weapon technology, and fire support technology.

The projection of power and Strike elements to defend military and civilian assets ashore using Maritime Forces is a key element for Littoral Warfare. The requirements can only be fulfilled with: careful correlation of intelligence and other indications and warnings, detection systems which can maintain track of ground targets, methods of identification of targets and hostile intent, command and weapon control systems (to include ability for real-time re-targeting), rapid response and time critical Strike weapons, as well as effective and efficient fire support weaponry. This project supports the Joint Chiefs of Staff top five Joint Warfighting Capabilities. In addition, six Fleet and Force Commanders included elements

of this as part of their Top Ten Command Capability Issues (CCIs): Flexible Targeting, Battlespace Connectivity and Common Tactical Picture, and Integrated Fire Support. (U) The Extending the Littoral Battlespace (ELB) Advanced Concept Technology Demonstration (ACTD) effort responds to the top level military need to rapidly deploy a Naval Expeditionary Task Force with an embarked Marine Air Ground Task Force as part of a larger Joint Task Force to any region of the world's littorals and conduct military operations from a sea base across the spectrum of conflict to implement national military strategy. Forces employed ashore will be light, agile, distributed and dis-aggregated and capable of optimizing remote fires, to effectively deter aggression, halt attacks and secure critical areas as a precursor to a much larger force. Forces will be empowered by unprecedented situation understanding via a robust information infrastructure that is fully coupled to a decision/planning/execution system on a shared battlespace network (sea/land). The objective of the ACTD is to demonstrate an enhanced integrated command and control/fires and targeting capability to enable rapid employment, maneuver, and fires to support joint dispersed units operating in an extended littoral battlespace. Two Major System Demonstrations (MSDs) will be demonstrated: one completed in FY-99 and one planned for FY01. The ELB ACTD was approved by Deputy Under Secretary of Defense (Acquisition and Technology) (DUSD (AT) on 16 January 1997.

(U) The Cruise Missile Defense (CMD)/Theater Air and Missile Defense (TAMD) problem is a very complex one, which must be systematically addressed. How can a single Carrier Battle Group in the "Offshore Presence" mode of operations, effectively defend assets at sea and ashore when it is required to execute "Forced Entry" in the event of hostilities. With the variety of air threats (Cruise Missiles (CMs), Theater Ballistic Missiles (TBMs), Unmanned Aerial Vehicle, Attack Aircraft), each having the potential of requiring different engagement techniques, coupled with other mission requirements such as Strike, and Surface Fire Support, what should be the Naval TAMD system of the future? In response to this, the project will be approaching the demonstrations of Science and Technology TAMD elements in a "system-of-systems" context.

This is a continuation/evolution from the Cruise Missile Defense Program initiated in FY 1994 and completed with land based testing of government and contractor computer programs and hardware (contractor IRAD) as part of the Radar Modernization Program (RMP) at Makaha Radar Facility, Hawaii, in 1999. The missile related technologies would be evaluated at White Sands Missile Range, New Mexico. The next Phase (FY-00 to FY-06) will be performing risk reduction on evolving system elements as well as incorporating advanced methods of integration and control of TAMD engagements in the littorals.

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PROJECT NUMBER: R2145 PROJECT TITLE: Global Surveillance/ Precision Strike and Air Defense Technology

(1). The CMD Phase I “Mountain Top” ACTD (completed January 1996) demonstrated that an AEGIS ship (or other surface/ ground based missile launch platform), using one or more surrogate airborne sensor partners and Cooperative Engagement Capability, can provide greatly expanded air defense capability to engage air targets beyond the surface/ground based radar line of sight.

(2). The CMD Phase II program aligned technology for the advanced E-2C Airborne Early Warning (AEW) radar system and STANDARD Missile programs leading to a fielded CMD capability. It balances cost, schedule, and risk across multiple technology programs, while initiating advanced missile technology efforts to develop and demonstrate engagement capabilities against next generation cruise missiles and all other air threats.

(3). The Phase III program focuses technology associated with the full “system of systems” which will lead to Future Naval Capability in Missile Defense. It will optimize the performance of science and technology products to detect, identify, perform fire control, and intercept CM, TBM, and other theater air threats through the use of risk reduction and integrating tools which are compatible with Navy, Joint Service and International TAMD systems. Included in this program are projects involving: electronically scanned array and infrared (IR) technology for airborne surveillance; methods of building Combat Identification confidence through a distributed network and automation of Theater-level orders from Commanders directly to “shooters”; electronically scanned array technology for missile application and advanced warhead technology for enhanced lethality.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1999 ACCOMPLISHMENTS:
   (U) Precision Strike
      (U) Direct Attack Munition Affordable Seeker (DAMASK):
      (U) Continued:
      - (U) Fabrication and bench test of seeker and signal processor; evaluate simulation of terminal guidance algorithm.

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(U) ELB
(U) Continued:
- (U) Strike weapon control integration (Ring of Fire).
- (U) Common tactical picture.
- (U) Airspace Four Dimensional (4D) deconfliction.
- (U) Conduct Major System Demonstrations (MSD) I.

(U) Initiated:
- (U) Command and Control (C2) demonstration hardware and software upgrades to support MSD I.
- (U) Field testing of Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) system.
- (U) Identification, preparation and support of residual technology for retention and further evaluation by the operating forces.
-

(U) TAMD
(U) CMD Phase II
(U) Continued:
- (U) Test planning for Makaha Ridge Facility 99 (MRF 99).
- (U) Design, development, integration and planning efforts for the Phase II demonstration to support extended horizon engagement of cruise missiles.
- (U) Advanced missile fuze and seeker technology development and surveillance upgrades targeting captive flight testing beyond FY 2000.

(U) Initiated:
- (U) MRF 99 critical experiments/demonstration.
- (U) Affordability focused development and demonstrations to reduce cost of technology transition and evaluate system interoperability; e.g. airborne system with interceptor.

(U) Completed:

- (U) MRF 99 critical experiments/demonstration of government computer programs and contractor hardware (IRAD) which will transition to the Navy E-2C RMP.

(U) Mobile Offshore Base (MOB)
(U) Completed:
(U) Initial assessment showing: (a) the feasibility of the MOB requirements, (b) MOB program could contribute to the ability to design large ships and other large floating structures.

(U) Classified Programs:
- (U) Advanced Surface Situational Awareness (ASSA): Initiated classified program.
- (U) High Powered Microwave: Initiated classified program.

2.(U) FY 2000 PLANS:

(U) Precision Strike
(U) Initiate:
- (U) Forward Air Support Marine (FASM):
- (U) Effort to develop an expendable, gun-launched munitions capable of direct fire support, surveillance and targeting.
- (U) Development of operational concepts for deployment and perform design trade-off of airframe/engine configuration.

(U) Complete:
- (U) DAMASK:
- (U) Complete efforts: conduct F/A-18 captive carry and free flight tests.

(U) ELB:
(U) Continue:
- (U) Strike weapons integration (Ring of Fire).

- (U) Common tactical picture.
- (U) Airspace 4D deconfliction.
- (U) Systems engineering and integration.
- (U) Identification, preparation and support of residual technology from MSD I for retention and further evaluation by the operating forces.

(U) Initiate:

- (U) Planning for full scale MSD in FY01.
- (U) C2 demonstration hardware and software upgrades.
- (U) Field testing of C4ISR systems.

(U) TAMD

(U) Initiate:

- (U) CCI efforts to associate identification attributes to real-time air tracks and pass them over a surrogate Joint Composite Tracking Network for the purpose of development of distributed Combat Identification of “positive- hostile”.
- (U) Distributed Weapons Control (DWC) automated distributed engagement planning and tactical decision aid development intended to provide real-time sensor-to-shooter pairing and weapon selection recommendations based upon Theater Wide Single Integrated Air Picture.
- (U) Multifunction Infrared Distributed Aperture System (MIDAS) program, which involves a passive infrared sensor system concept for tactical aircraft, and surface combatants exploiting recent rapid advances in infrared sensor and high speed digital image processing technologies.
- (U) Ultra High Frequency (UHF) Electronically Scanned Array (UESA) effort, which will demonstrate a non-rotating electronically-scanning UHF surveillance radar antenna with a 360 field of regard to be demonstrated in FY02 at Pacific Missile Range Facility (PMRF) in Hawaii.

(U) Continue:

- (U) Critical CMD risk reduction efforts leading to full Navy AEW airborne system demonstration in conjunction with demonstration exercises FY02/03.

(U) Complete:

- (U) Analysis of technical data from MRF-99 critical experiments/demonstration, identifying elements to be included in Missile Defense Future Naval Capability initiative.

(U) Classified Programs
(U) ASSA: Continue classified program.
(U) High Power Microwave: Continue classified program
(U) Retract Cypress: Initiate classified program.
(U) Claymore Marine: Initiate classified program.

3. (U) FY 2001 PLANS:

(U) Precision Strike
(U) Continue:
- (U) FASM:
- (U) Effort to develop an expendable, gun-launched munition capable of direct fire support, surveillance and targeting.
- (U) Development operational concepts for deployment and perform design trade-offs of airframe/engine configuration.

(U) ELB
(U) Continue:
- (U) C2 demonstration hardware and software for MSD II.
- (U) Conduct MSD II
- (U) Conduct military utility assessment of MSD II

(U) Initiate
- (U) Planning for residual support

(U) TAMD

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PROJECT NUMBER: R2145 PROJECT TITLE: Global Surveillance/ Precision Strike and Air Defense Technology

(U) Continue:
- (U) Critical risk reduction efforts leading to full Navy AEW airborne system demonstration in conjunction with demonstration exercises FY-02/03
- (U) System interface development and demonstration planning for Missile Defense Future Naval Capability to be conducted in the FY-02 and beyond timeframe.
- (U) Composite Combat Identification efforts to associate identification attributes to real-time air tracks and pass them over a surrogate Joint Composite Tracking Network for the purpose of development of distributed Combat Identification of “positive- hostile”.
- (U) DWC automated distributed engagement planning and tactical decision aid development intended to provide real-time sensor-to-shooter pairing and weapon selection recommendations based upon Theater Wide Single Integrated Air Picture.
- (U) MIDAS program, which involves a passive infrared sensor system concept for tactical aircraft, and surface combatants exploiting recent rapid advances in infrared sensor and high speed digital image processing technologies.
- (U) UESA effort, which will demonstrate a non-rotating electronically scanning UHF surveillance radar antenna with a 360 field of regard in FY-02 at PMRF in Hawaii.

(U) Initiate:
- (U) IR Search and Track program for multi-spectral detection and tracking of all airborne targets.
  (U) Multi-source Integration program for all RF, IR, ESM and satellite data tracks.
  (U) Seeker/Fuze program to develop an advanced seeker with integrated fusing.

(U) Classified Programs
(U) ASSA: Complete classified program.
(U) High Power Microwave: Complete classified program.
(U) Retract Cypress: Complete classified program.
(U) Claymore Marine: Continue classified program.

B. (U) PROGRAM CHANGE SUMMARY: See total program change summary for P.E.

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C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.
(U) RELATED RDT&E:

(U) PE 0203801A (Missile/Air Defense Product Improvement Program)
(U) PE 0204152N (E-2 Squadrons)
(U) PE 0207163F (Advanced Medium Range Air-to-Air Missile (AMRAAM))
(U) PE 0207417F (Airborne Warning and Control System (AWACS)
(U) PE 0601153N (Defense Research Sciences)
(U) PE 0602111N (Air and Surface Launched Weapons Technology)
(U) PE 0602121N (Ship, Submarine & Logistics Technology)
(U) PE 0602122N (Aircraft Technology)
(U) PE 0602232N (Communications, Command & Control, Intelligence, Surveillance & Reconnaissance (C3ISR)
(U) PE 0602233N (Human Systems Technology)
(U) PE 0602234N (Materials, Electronic and Computer Technology)
(U) PE 0602314N (Undersea Warfare Surveillance Technology)
(U) PE 0602435N (Oceanographic & Atmospheric Technology)
(U) PE 0602633N (Undersea Warfare Weapon Technology)
(U) PE 0603006A (C3 Advanced Technology)
(U) PE 0603226E (Experimental Evaluation of Innovative Technologies)
(U) PE 0603238F (Air Defense/Precision Strike Technology Demo)
(U) PE 0603245F (Advanced Flight Technology Integration)
(U) PE 0603270N (Advanced Electronic Warfare Technology)
(U) PE 0603401F (Advanced Spacecraft Technology)
(U) PE 0603563N (Ship Concept Advanced Design)
(U) PE 0603601F (Conventional Weapons Technology)
(U) PE 0603609N (Conventional Munitions)
(U) PE 0603726F (C3I Subsystem Integration)

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(U) PE 0603755N (Ship Self Defense)
(U) PE 0603772A (Advanced Tactical Computer Science and Sensor Technology)
(U) PE 0603794N (C3 Advanced Technology)
(U) PE 0604366N (Standard Missile Improvements)
(U) PE 0604770F (Joint Surveillance/Target Attack Radar Systems (JSTARS)
(U) PE 0604866C (Patriot Risk Reduction Mitigation)

D. (U) SCHEDULE PROFILE: Not applicable.

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(U) COST: (Dollars in Thousands)

PROJECT NUMBER/ TITLE	FY 1999 ACTUAL	FY 2000 ESTIMATE	FY 2001 ESTIMATE	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0834 Naval Science Assistance Program (NSAP)	4,806	4,688	4,775	4,943	4,841	4,821	4,783	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:
This program enables Science and Technology (S&T) to be moved to the operational Fleet/Force rapidly, leverages long-term S&T investments to meet operational capability needs, and provides a method for the Research Development Test and Evaluation (RDT&E) community to surge in response to real world crises. The program accomplishes this through several methods. It provides on the spot Science and Technology Advisors (STAs) and Representatives (STRs) to Joint, Navy, and Marine Corps operational and strategic planning commands worldwide. It also develops a compendium of mature technologies, not yet in the acquisition portfolio, for Fleet/Force Commander early evaluation and concurrent development of new tactics and operational concepts. In addition, NSAP facilitates and disseminates the Command Capability Issues (CCIs) provided by the Fleet/Force Commanders to the Director of Navy Test and Evaluation and Technology Requirements (OPNAV N091). Lastly, NSAP collaborates with the Fleet/Force to identify specific solutions to known operational capability needs and provides the means to develop and demonstrate prototype systems. The result is that NSAP provides insight into issues associated with Naval Warfighting Capabilities, thereby influencing long term S&T programs. The program also develops a cadre of civilian scientists and engineers who, upon completion of their NSAP STA/STR tours, return to the Naval technical community with first hand knowledge of the Fleet/Force and warfighting issues. NSAP enables a continuous collaboration between the warfighters, the technical community, and strategic development commands.

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PROJECT NUMBER: R0834 PROJECT TITLE: Naval Science Assistance Program

(U)PROGRAM ACCOMPLISHMENTS AND PLANS;

1. (U) FY 1999 ACCOMPLISHMENTS:

(U) NSAP facilitated and disseminated the CCIs that were provided by the Fleet/Force Commanders to OPNAV N091. It developed the Office of Naval Research's "Technologies for Rapid Response" (Blue Book), a compendium of mature technologies, not yet in the acquisition portfolio, for Fleet/Force Commander early evaluation and concurrent development of new tactics and operational concepts. It also leveraged a 15.5 man-year investment to provide 20 on the spot STAs and STRs to Joint, Navy, and Marine Corps operational and strategic planning Commands worldwide. These 20 STAs and STRs have gained experience working with high level decision-makers and operators to develop technologies for transition to the Fleet/Force. In addition, NSAP has collaborated with the Fleet/Force to identify specific solutions to known operational capability needs and provided the means to develop and demonstrate prototype systems. The program has helped move S&T to the operational Fleet/Force rapidly, leverage long-term S&T investments to meet operational Fleet/Force capability needs, and provide a method for the RDT&E community to surge in response to real world crises. Several of the technology insertions that were initiated in prior years were transitioned this year to operational use and acquisition programs.

2. (U) FY 2000 PLAN:

(U) Facilitate and disseminate the CCIs provided by the Fleet/Force Commanders to the OPNAV N091. Develop the Blue Book, a compendium of mature technologies, not yet in the acquisition portfolio, for Fleet/Force Commander early evaluation and concurrent development of new tactics and operational concepts. Leverage the investment to provide on the spot STAs and STRs to Joint, Navy, and Marine Corps operational and strategic planning Commands worldwide. Assist these STAs and STRs to obtain experience working with high-level decision-makers and operators to develop technologies for transition to the Fleet/Force. Collaborate with the Fleet/Force to identify specific solutions to known operational capability needs and provide the means to develop and demonstrate prototype systems. Help move S&T to the operational Fleet/Force rapidly, leverage long-term S&T investments to meet operational Fleet/Force capability needs, and provide a method for the RDT&E

community to surge in response to real world crises. Transition the technology insertions that were initiated in prior years to operational use and acquisition programs.

3. (U) FY 2001 PLANS:

(U) Facilitate and disseminate the CCIs provided by the Fleet/Force Commanders to the OPNAV N091. Develop the Blue Book, a compendium of mature technologies, not yet in the acquisition portfolio, for Fleet/Force Commander early evaluation and concurrent development of new tactics and operational concepts. Leverage the investment to provide on the spot STAs and STRs to Joint, Navy, and Marine Corps operational and strategic planning Commands worldwide. Assist these STAs and STRs to obtain experience working with high-level decision-makers and operators to develop technologies for transition to the Fleet/Force. Collaborate with the Fleet/Force to identify specific solutions to known operational capability needs and provide the means to develop and demonstrate prototype systems. Help move S&T to the operational Fleet/Force rapidly, leverage long-term S&T investments to meet operational Fleet/Force capability needs, and provide a method for the RDT&E community to surge in response to real world crises. Transition the technology insertions that were initiated in prior years to operational use and acquisition programs.

B.PROGRAM CHANGE SUMMARY: See total program change summary for P.E.

C.OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E
(U) SCHEDULE PROFILE: Not applicable.