

UNCLASSIFIED

FY 2000 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1999

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 1998 ACTUAL | FY 1999 ESTIMATE | 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 | 38,176 | 48,179 | 47,855 | 62,806 | 62,795 | 61,386 | 62,771 | 64,196 | CONT. | CONT. |
| R2266 Mobile Offshore Basing (MOB) | 4,852 | 4,989 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37,321 |
| R0834 Naval Science Assistance Program (NSAP) | 2,994 | 4,326 | 4,725 | 4,872 | 5,008 | 5,154 | 5,282 | 5,414 | CONT. | CONT. |
| R2371 Littoral Airborne Sensor/Hyperspectral (LASH) | 11,404 | 11,972 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23,376 |
| TOTAL | 57,426 | 69,466 | 52,580 | 67,678 | 67,803 | 66,540 | 68,053 | 69,610 | 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 (JCS'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.

(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

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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) 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 disaggregated 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) is planned for FY99 and 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 (WMD). 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. A Joint Mission Assessment (JMA) panel recently (MAY 98) 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 (CEC), can provide greatly expanded air defense capability to engage air

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targets beyond the surface/ground based radar line of sight. (2) The CMD Phase II program (FY-96 to FY-99) accelerates and aligns the advanced E-2C Airborne Early Warning (AEW) radar system and STANDARD Missile (SM) programs towards 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 (FY-00 to FY-06) focuses technology associated with the full "system of systems" which will lead to future Naval capability in TAMDM. 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 TAMDM systems.

(U) Mobile Offshore Basing (MOB) concept supports the Nuclear Deterrence and Sea and Air Superiority JMAs. The potential requirement to provide a long-term U.S. presence off shore in support of U.S. interests overseas supports the investigation of advanced mobile bases. Technology issues will be explored associated with both semi-submersible and mono-hull modules connected into platforms between 1000 and 3000 meters in length. Technical challenges include mobility to get on station, sea keeping and stability to support cargo transfer.

(U) Naval Science and Assistance Program (NSAP): This project provides on the spot Science and Technology advisors to Joint, Navy and Marine Corps operational Commands worldwide. It has in the past and will continue to solve high priority Fleet/Force problems rapidly and affordably by evaluation and insertion of mature technologies into operational environments. In addition it provides insight into issues associated with Naval Warfighting Capabilities, thereby influencing long term S&T programs. The program produces a cadre of civilian scientists and engineers fully conversant in operational issues who, upon completion of their NSAP tour, will return to the Naval technical community with enthusiasm and appreciation for the need to develop technologies for transition to the Fleet. Two real products are developed: 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; a compendium of Command Capability Issues (CCIs) provided by the Fleet/Force Commanders to the Chief of Naval Research. NSAP is truly a two-way bridge between the warfighter and the scientific/technical community.

(U) Littoral Airborne Sensor/Hyperspectral (LASH) is a modular airborne imaging 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 (ASW), mine detection, passive bathymetry, near shore mapping, and land-based detection, discrimination and targeting.

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(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 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 1998 | FY 1999 | FY 2000 |
|--|---------|---------|---------|
| (U) FY 1999 President's Budget: | 54,319 | 58,306 | 49,505 |
| (U) Appropriated Value: | | 66,406 | - |
| (U) Adjustments from FY 1999 PRESBUDG: | +3,107 | +11,160 | +3,075 |
| (U) FY 2000 PRESBUDG Submission: | 57,426 | 69,466 | 52,580 |

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1998 adjustments reflect Actual Update adjustments (+\$3,346); and Small Business Innovation Research adjustment (-\$239). FY 1999 adjustments reflect Congressional Undistributed Reductions (-\$641); Congressional Plus-up Mobile Offshore Basing (+\$5,000), Congressional Plus-up Littoral airborne Sensor/Hyperspectral (+\$12,000); Direct Congressional Reduction (-\$8,900); and Actual Execution Updates (+\$3,701). FY 2000 adjustments reflect Program Adjustment (+3,500); Navy Working Capital Fund (NWCF) Rate adjustment (+198); Civilian Pay Rate adjustment (+\$137); and Non Pay Inflation adjustment (-\$760).

(U) Schedule: Not applicable

(U) Technical: Not applicable

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(U) COST: (Dollars in Thousands)

| PROJECT NUMBER/ TITLE | FY 1998 ACTUAL | FY 1999 ESTIMATE | 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 | 38,176 | 48,179 | 47,855 | 62,806 | 62,795 | 61,386 | 62,771 | 64,196 | 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 JCS 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.

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(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 (MAGTF) 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 disaggregated 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) is planned for FY99 and 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 (CMs, TBMs, UAVs, 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 completing with land based testing at Makaha Radar Facility, Hawaii, in 1999 and at White Sands Missile Range, New Mexico, in 2000. 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.

(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

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Capability (CEC), 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 accelerates and aligns the advanced E-2C Airborne Early Warning (AEW) radar system and STANDARD Missile (SM) programs towards 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 TAMD. 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 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 1998 ACCOMPLISHMENTS:

(U) (\$3,986) Precision Strike

(U) Direct Attack Munition Affordable Seeker (DAMASK):

(U) Initiate:

- DAMASK project to demonstrate an image guided bomb concept with an image seeker, autonomous three meter precision, through adverse weather, at standoff ranges, and at low cost.
- Develop imaging template and adapt pattern matching software.

(U) (\$34,190) (CMD/TAMD)

(U) CMD Phase II

(U) Continue:

- (U) Test planning for sensor demonstration at Makaha Ridge Facility (MRF-99).

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- (U) Design, development integration and planning efforts for the Phase II demonstration to support extended horizon engagement of cruise missiles.
- (U) Advanced missile seeker and fuze technology development and surveillance upgrades targeting risk reduction efforts in FY-99 and captive flight testing in FY 2000.

2.(U) FY 1999 PLANS:

(U) (\$6,036) Precision Strike

(U) DAMASK:

(U) Continue:

- (U) Begin fabrication and bench test of seeker and signal processor; evaluate simulation of terminal guidance algorithm.

(U) (\$9,838) ELB

(U) ELB

(U) Continue:

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

(U) Initiate:

- (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) Assessment Planning.

(U) (\$22,273) CMD/TAMD

(U) CMD Phase II

(U) Continue:

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- (U) Test planning for 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 in FY 2000.

(U) Initiate:

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

(U) Complete:

- (U) MRF 99 critical experiments/demonstration.

(U) (\$9,354) Classified Programs

(U) Advanced Surface Situational Awareness (ASSA): Initiate classified program.

(U) High Powered Microwave: Initiate classified program.

- (U) (\$678) Small Business Innovation Research (SBIR). Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

3.(U) FY 2000 PLANS:

(U) (\$8,560) Precision Strike

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

(U) Forward Air Support Marine (FASM):

(U) Initiate:

- Effort to develop an expendable, gun-launched munition capable of direct fire support, surveillance and targeting.
- Develop operational concepts for deployment and perform design trade-offs of airframe/engine configuration.

(U) (\$9,866) ELB

(U) ELB:

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(U) Continue:

- (U) Common tactical picture.
- (U) MSD I assessment.
- (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) (\$8,811) CMD/TAMD

(U) CMD/TAMD

(U) Initiate:

- (U) Management and planning for Theater Air and Missile Defense (TAMD) focus initiative.
- (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.

(U) Continue:

- (U) Critical CMD risk reduction efforts leading to full E-2C airborne system demonstration with live STANDARD Missile firing in FY02/03.

(U) Complete:

- (U) Analysis of technical data from MRF-99 critical experiments/demonstration, identifying elements to be included in TAMD focus initiative.

(U) (\$20,618) Classified Programs

(U) ASSA: Continue classified program.

(U) High Power Microwave: Continue classified program

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- (U) Retract Cypress: Initiate classified program.
- (U) Claymore Marine: Initiate classified program.

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

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)

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- (U) PE 0603609N (Conventional Munitions)
- (U) PE 0603726F (C3I Subsystem Integration)
- (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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|---|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------|---------------|
| R0834 Naval Science Assistance Program (NSAP) | 2,994 | 4,326 | 4,725 | 4,872 | 5,008 | 5,154 | 5,282 | 5,414 | CONT. | CONT. |

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

The project provides on the spot Science and Technology (S&T) Advisors to Joint, Navy, and Marine Corps operational commands worldwide. It solves high priority Fleet/Force problems rapidly and affordably by insertion and evaluation of mature technologies in operational environments and provides Naval warfighting capability issues to influence the longer-term S&T programs. The program produces a cadre of civilian scientists and engineers fully conversant in operational issues, a compendium of mature technologies, not yet in the acquisition portfolio, available to Fleet/Force Commanders for early at-sea evaluation and concurrent development of new tactics and concepts of operation. NSAP is the two-way bridge between the warfighter and the technical community.

(U) FY 1998 reflected initiation of a new strategy for the NSAP. Until FY 1997, the approach was to support a large field team of Science and Technology Advisors assigned to operational commands worldwide. During FY98, NSAP transitioned to a smaller corps of advisors while increasing the emphasis on providing rapid, affordable solutions to real operational problems. This strategy has been developed with the concurrence of the Chief of Naval Operations and has been implemented cooperatively with the Navy Fleet Commanders and the Commandant of the Marine Corps.

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PROJECT TITLE: Naval Science
Assistance Program

(U)PROGRAM ACCOMPLISHMENTS AND PLANS;

1. (U) FY 1998 ACCOMPLISHMENTS:

(U) (\$2,994) 14 scientists and engineers served as the S&T Advisors to 14 Joint, Navy, and Marine Corps operational commands, providing the primary interface between operating forces and the technical community. Determined capability shortfalls amenable to technology solutions within the operational commands and provided liaison support to subordinate and component commands. Managed NSAP Headquarters Operations Center at Office of Naval Research (ONR) and identified mature technologies to solve Command Capability Issues (CCI). Provided coordination of operational insertion of these technologies and joint evaluations between the developers and operators. Provided oversight and coordination with S&T Advisors located at other operational commands and at strategic planning groups.

2. (U) FY 1999 PLAN:

(U) (\$4,300) 14 scientists and engineers serve as S&T Advisors to 14 Joint, Navy, and Marine Corps operational commands, providing the primary interface between operating forces and the technical community. Determine capability shortfalls, document them in CCIs, and find solutions from mature and on the shelf technologies where possible. Broker the remaining CCIs with longer-term technology programs providing requirements documentation to establish new program directions. Where commercial technologies are appropriate, integrate them into technical solutions. Establish transitions for FY97 and FY98 technology insertions now nearing completion of evaluation phases. Manage new technology insertion Integrated Product Team (IPTs) for products selected from the ONR Blue Book. Provide Fleet/Force customers and other stakeholders with metrics for determining the effectiveness of NSAP products and improve those processes and products accordingly.

(U) (\$26) Small Business Innovation Research (SBIR). Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 638.

3. (U) FY 2000 PLANS:

(U) (\$4,772) 14 scientists and engineers serve as S&T Advisors to 14 Joint, Navy, and Marine Corps operational commands, providing the primary interface between operating forces and the technical community. Determine capability shortfalls,

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Budget Item Justification
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FY 2000 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1999

BUDGET ACTIVITY: 3

PROGRAM ELEMENT: 0603238N

PROJECT NUMBER: R0834

PROGRAM ELEMENT TITLE: Global Surveillance/
Precision Strike and Air
Defense Technology

PROJECT TITLE: Naval Science
Assistance Program

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

C.OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

(U) SCHEDULE PROFILE: Not applicable.

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Budget Item Justification
(Exhibit R-2 Page 15 of 15)

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