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FY 2000 President's Budget Estimate

EXHIBIT R-2, FY 2000 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: FEBRUARY 1999

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(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
R0149	International Cooperative RDT&E									
	2,502	1,066	1,987	2,018	2,081	2,107	2,142	2,229	CONT.	CONT.
R1767	Naval War College/Center for Naval Warfare Studies									
	2,072	1,393	2,314	2,345	2,385	2,427	2,480	2,532	CONT.	CONT.
X2221	Assessment Program									
	10,582	6,831	12,947	13,233	13,473	13,178	13,466	13,760	CONT.	CONT.
X2222	Naval Modeling & Simulation									
	0	8,335	0	0	0	0	0	0		15,174
W2347	Test and Evaluation Modeling and Simulation									
	0	0	2,199	2,240	2,549	2,744	2,780	2,895	CONT.	CONT.
TOTAL:	15,156	17,625	19,447	19,836	20,488	20,456	20,868	21,416	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This Program Element (PE) provides management and technical support for several national and international projects:

(U) Project R0149 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.

(U) Project R1767 provides funding for Naval War College (NWC) research activities, which serve as a focal point, stimulus, and major source of strategic and campaign thought within the Navy. These efforts generate

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strategy and campaign alternatives, provide for evaluation through wargaming methodologies, and provide recommendations to the Chief of Naval Operations (CNO) and fleet commanders regarding the formulation and execution of strategy.

(U) Project X2221 provides analytical and management support for the Planning/Assessment process. This project supports the development of annual Integrated Warfare Architectures (IWARS)/Chief of Naval Operations Program Assessment Memorandum (CPAM)/Joint Warfighting Capability assessments which provide the analytical underpinnings and basis for programmatic decisions made by the Navy's top leadership regarding integration of Navy warfare/support requirements.

(U) Project X2222 provides the overarching policy, coordination and technical support for Naval modeling focus, coordination and oversight. It enhances development and execution of a coordinated Naval M&S program, including distributed simulation tool development, M&S incorporation with C4I systems and simulation. This project responds to Congressional guidance to improve modeling and simulation embedded training systems, and an orderly process of model Verification, Validation and Accreditation required by current directives.

(U) Project W2347 enhances the Test and Evaluation (T&E) efforts of the Navy by providing policy, coordination, and technical support for the Modeling and Simulation (M&S) program. The mission is to promote and standardize modeling and simulation for interoperability and re-use within and between programs and across the Research Development Test and Evaluation community. This also provides funds to incrementally establish the Joint Synthetic Test and Evaluation Battlespace (JSTEB) Joint Operational Requirements document. Test and Evaluation Modeling and Simulation (TEMS) is required to reduce the cost, schedule, and risk of acquisition programs by supporting the early integration of M&S capabilities into the T&E process.

B. (U) PROGRAM CHANGE SUMMARY: FY 1998 adjustments are due to SBIR reduction (-444K) and an increase of (+527K) for Chief of Naval Operations Strategic Studies Group expansion support.

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C. (U) OTHER PROGRAM FUNDING SUMMARY:

Project R0149: Related RDT&E PE 0603790D (Nunn Armaments Cooperation)

Project X2222 FY1998 FY1999 FY2000
O&M, N PE0204662N/1C1C (Partial)
 0 774 See PE 0308601N

Project W2347, Related RDT&E P.E. 0604759N: Major T&E Investment and P.E. 0605864N: Test and Evaluation Support

D. (U) ACQUISITION STRATEGY: Not applicable.

E. (U) SCHEDULE PROFILE: Not applicable.

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BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

DATE: FEBRUARY 1999

PROJECT NUMBER: R0149

PROJECT TITLE: International Cooperative RDT&E

(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
R0149 International Cooperative RDT&E	2,502	1,066	1,987	2,018	2,081	2,107	2,142	2,229	CONT.	CONT.

A. (U) 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 fulfill established operational requirements, enhance U.S./allied interoperability and standardization, obtain unique foreign technologies, and reduce U.S. developmental and production costs. Such efforts result in:

- (U) Development and negotiation of approximately 25 International RDT&E Agreements annually with allied and friendly nations.
- (U) Execution of over 300 information exchange annexes.
- (U) Participation in armaments cooperation for a including the Conference of NATO Armaments Directors groups (e.g., the NATO Naval Armaments Group), Senior National Representative (SNR) meetings, the Technical Cooperative Program and Scientific Committee National Representatives meetings.
- (U) Promote research initiatives at the NATO Supreme Allied Command Atlantic, Undersea Research Center (SACLANTCEN) in La Spezia, Italy in the areas of anti-submarine warfare (ASW), mine countermeasures (MCM), and littoral warfare.
- (U) Participation in the Engineering and Scientist Exchange Program (ESEP).

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1998 ACCOMPLISHMENTS:

- (U) (\$330) Continued to support DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
- (U) (\$440) Continued to support DoN participation in U.S./allied data exchange conferences to identify foreign technologies and R&D projects in which the Navy may desire to collaborate as well as on-going efforts to initiate/revise/terminate DEAs to target new technologies and expand, where appropriate, to include exchanges with FSU countries.

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- (U) (\$500) Continued to update and maintain the DoN data bases for drafting, negotiating, managing and tracking of proposed IAs for "high leverage/high payoff" R&D technology base cooperative projects with key allies and friendly nations.
 - (U) (\$10) Provided support to Acquisition Integrated Product Teams (IPTs) in evaluating international cooperative alternatives in development of DON programs as well as support to OSD International Cooperation Opportunities Group (ICOGs) regarding DON requirements and initiatives.
 - (U) (\$182) Maintained a level of Navy participation in the ESEP at approximately three scientists/engineers. Continued to conduct post-assignment analysis of scientists/engineers to better target assignments with emerging technologies and programs at foreign research establishments.
 - (U) (\$20) Continued to fund the efforts of SYSCOMs and laboratories in researching and negotiating international cooperative programs.
 - (U) (\$126) Continued to fund DON efforts to promote research initiatives at the NATO SACLANTCEN in the areas of ASW, MCM, and littoral warfare.
 - (U) (\$894) Funds were executed under the NATO Cooperative R&D project R2293 (PE0603790) for the Advanced Steel Technology (AST) cooperative R&D project with Japan which was certified by USD(a&T) in accordance with Title 10 U.S. Code Section 2350a.
2. (U) FY 1999 PLAN:
- (U) (\$129) Continue to support DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
 - (U) (\$250) Continue to support DoN participation in U.S./allied data exchange conferences to identify foreign technologies and R&D projects in which the Navy may desire to collaborate as well as on-going efforts to initiate/revise/terminate DEAs to target new technologies and expand, where appropriate, to include exchanges with FSU countries.
 - (U) (\$420) Continue to update and maintain the DoN data bases for drafting, negotiating, managing and tracking of proposed IAs for "high leverage/high payoff" R&D technology base cooperative projects with key allies and friendly nations.
 - (U) (\$25) Provide support to Acquisition IPTs in evaluating international cooperative alternatives in development of DON programs as well as support to OSD ICOGs regarding DON requirements and initiatives.
 - (U) (\$80) Maintain a level of Navy participation in the ESEP at approximately three scientists/engineers. Continue to conduct post-assignment analysis of scientists/engineers to

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better target assignments with emerging technologies and programs at foreign research establishments.

- (U) (\$25) Continue to fund the efforts of SYSCOMs and laboratories in researching and negotiating international cooperative programs.
- (U) (\$133) Continue to fund DON efforts to promote research initiatives at the NATO SACLANTCEN in the areas of ASW, MCM, and littoral warfare.
- (\$4) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 14 USC 638.

3. (U) FY 2000 PLAN:

- (U) (\$370) Continue to support DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
- (U) (\$515) Continue to support DoN participation in U.S./allied data exchange conferences to identify foreign technologies and R&D projects in which the Navy may desire to collaborate as well as on-going efforts to initiate/revise/terminate DEAs to target new technologies and expand, where appropriate, to include exchanges with FSU countries.
- (U) (\$598) Continue to update and maintain the DoN data bases for drafting, negotiating, managing and tracking of proposed IAs for "high leverage/high payoff" R&D technology base cooperative projects with key allies and friendly nations.
- (U) (\$50) Provide support to Acquisition IPTs in evaluating international cooperative alternatives in development of DON programs as well as support to OSD ICOGs regarding DON requirements and initiatives.
- (U) (\$400) Increase the level of Navy participation in the ESEP at approximately six scientists/engineers. Continue to conduct post-assignment analysis of scientists/engineers to better target assignments with emerging technologies and programs at foreign research establishments.
- (U) (\$54) Continue to fund the efforts of SYSCOMs and laboratories in researching and negotiating international cooperative programs.

B. (U) PROGRAM CHANGE SUMMARY:

(U) Funding: FY 1998 adjustments are due to SBIR Reduction (-30), Fy98 update (+26), comparability adjustment (+854) fy1999 ADJUSTMENT IS DUE TO Revised Economic Assumption (-2), and Congressional

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PROJECT TITLE: International Cooperative
RDT&E

Reduction (-1),089). FY 2000 adjustment is due to Program Adjustments (241), NWCF rate adjustment (+4), Civilian Pay Rates (+2), and Non Pay Inflation (-29).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

(U) PE 0603790D (Nunn Armaments Cooperation)

(U) PE 0605130D (Foreign Comparative Testing)

(U) PE 0603790N (NATO Cooperative Research and Development)

D. (U) SCHEDULE PROFILE: Not applicable.

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PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical & International Support

PROJECT NUMBER: R1767

PROJECT TITLE: Naval War College-
Center for Naval Warfare Studies

(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
R1767 Naval War College/Center for Naval Warfare Studies	2,072	1,393	2,314	2,345	2,385	2,427	2,480	2,532	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Naval War College (NWC) research activities serve as a focal point, stimulus, and major source of strategic and campaign thought within the Navy. These efforts generate strategy and campaign alternatives, provide for evaluation through wargaming methodologies, and provide recommendations to the Chief of Naval Operations (CNO) and fleet commanders regarding the formulation and execution of strategy.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

(U) FY 1998 ACCOMPLISHMENTS:

- (U) (\$1,450) Conducted strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC tasking in such areas as peacekeeping and peace enforcement, environmental law and freedom of navigation, and direct fleet support.
- (U) (\$562) Conducted major war games culminating in Annual Global Wargame.
- (U) (\$60) Provided for selected NWC students to conduct advanced research projects.

(U) FY 1999 PLAN:

- (U) (\$716) Conduct strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC tasking in such areas as maritime strategy, decision support, and direct fleet support.
- (U) (\$615) Conduct major war games culminating in Global '99.
- (U) (\$62) Provide for selected NWC students to conduct advanced research projects.

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PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical & International Support

PROJECT NUMBER: R1767

PROJECT TITLE: Naval War College-
Center for Naval Warfare Studies

(U) FY 2000 PLAN:

- (U) (\$1,623) Conduct strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC tasking in such areas as maritime strategy, decision support, and direct fleet support.
- (U) (\$627) Conduct major wargames culminating in Global '99.
- (U) (\$64) Provide for selected NWC students to conduct advanced research projects.

B. (U) PROGRAM CHANGE SUMMARY: FY98 adjustment is due to SBIR assessment of (-20), and actual execution update of (+700). FY1999 adjustment is due to congressional reduction to program element net growth (-916) and FY 1999 economic assumptions (-3). FY00 of (-33) for Non Pay Inflation.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X2221

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT TITLE: Assessment Program

(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
X2221 Assessment Program	10,582	6,831	12,947	13,233	13,473	13,178	13,466	13,760	CONT	CONT

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: X2221, Assessment Program consolidates analytical and management support to the Planning segment of the Navy Planning, Programming and Budgeting System (PPBS). This project supports the development of annual Integrated Warfare Architectures (IWARs) and Chief of Naval Operations Program Assessment Memorandum (CPAM) assessments, which provide analytical underpinnings and basis for programmatic decisions of the Navy's top leadership regarding the integration of Navy warfare/support requirements. This program provides the Navy input to the VCJCS lead Joint Warfighting Capability Assessment (JWCA) process. Assessment program develops tools and analytical methodologies based on standards and technical recommendations as provided by the Naval Modeling and Simulation Program and provides technical leadership for the analysis functional area of Naval Modeling and Simulation.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1998 ACCOMPLISHMENTS:

- (U) (\$ 149) Developed, updated and maintained detailed level Navy Standard scenarios based on Defense Planning Guidance.
- (U) (\$7,932) Performed Joint Mission Area/Support Area assessments to support the interactive Investment Balance Review process; efforts included Joint Strike, Joint Surveillance, Strategic Deterrence, Forward Presence, Joint Littoral, Joint SEW/I, and Strategic Sealift/Protection and their Integration into the Investment Balance Review. Provided Navy input to JWCA process.

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PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT NUMBER: X2221

**PROJECT TITLE: Assessment
Program**

- (U) (\$1,426) Developed and accredited Joint Mission Area/Support Area tools and improve analytic methodology.
- (U) (\$1,075) Using the standard simulation and database architecture developed by Naval Modeling and Simulation, re-hosted legacy models into the new framework, vastly improving the utility of these tools to the assessment process. Developed new tools that utilize models in the standard simulation and database architecture. Coordinated and supported Joint Analytical Model Improvement Program (JAMIP).
- 2. (U) FY 1999 PLAN:
 - (U) (\$ 111) Develop, update and maintain detailed level Navy Standard scenarios based on Defense Planning Guidance.
 - (U) (\$4,791) Develop Integrated Warfare Architectures (IWARs) and perform assessments and develop the Chief of Naval Operations Program Assessment Memorandum (CPAM). Areas of focus include Sea Dominance; Air Dominance; Power projection; Deterrence; Sensor Management/Information Superiority; Sustainment; Infrastructure; Manpower and Personnel; Readiness; Training and Education; Technology; and Force Structure. Provide Navy input to Joint Warfighting Capabilities Assessment (JWCA) process.
 - (U) (\$1,056) Continue to develop and accredit IWAR and CPAM tools and improve analytic methodology.
 - (U) (\$873) Using the standard simulation and database architecture developed by Naval Modeling and Simulation to re-host legacy models into the new framework, vastly improving the utility of these tools to the assessment process. Develop new tools that utilize models in the standard simulation and database architecture. Coordinate/support Joint Analytical Model Improvement Program (JAMIP).
- 3. (U) FY 2000 PLAN:
 - (U) (\$ 213) Develop, update and maintain detailed level Navy Standard scenarios based on Defense Planning Guidance.
 - (U) (\$9,053) (U) Develop Integrated Warfare Architectures (IWARs) and perform assessments and develop the Chief of Naval Operations Program Assessment Memorandum (CPAM). Areas of

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PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT NUMBER: X2221

**PROJECT TITLE: Assessment
Program**

focus include Sea Dominance; Air Dominance; Power projection; Deterrence; Sensor Readiness; Training and Education; Technology; and Force Structure. Provide Navy input to Joint Warfighting Capabilities Assessment (JWCA) process.

- (U) (\$2,016) Continue to develop and accredit IWAR and CPAM tools and improve analytic methodology.
- (U) (\$1,665) Using the standard simulation and database architecture developed by Naval Modeling and Simulation to re-host legacy models into the new framework, vastly improving the utility of these tools to the assessment process. Develop new tools that utilize models in the standard simulation and database architecture. Coordinate/support Joint Analytical Model Improvement Program (JAMIP).

B. (U) PROGRAM CHANGE SUMMARY: FY2000 funds increased due to 1) NWCF rates +\$13K; 2) Civilian pay rates +10; 3) Non Pay Inflation -187; Working Capital -1.

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

(U) RELATED RDT&E: Not applicable

D. (U) SCHEDULE PROFILE: Not applicable.

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PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical & International Support

DATE: FEBRUARY 1999

PROJECT NUMBER: X2222

PROJECT TITLE: Naval Modeling & Simulation

(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
X2222 Naval Modeling & Simulation	0	8,335	0	0	0	0	0	0		15,174

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Funds the efforts of Navy Modeling and Simulation (M&S) Management Office and the Department of the Navy Technical Support Group (TSG). Supports technical and management initiatives directed by Congress, DoD and SECNAV with the aim of bringing organization and focus to the development and use of M&S tools throughout Navy and DoD. It provides a central agency for the formulation and implementation of policy and guidance in M&S; represents Navy interests in Joint/other Agency. Funds efforts to define and coordinate execution of a Navy M&S program to evolve an interoperable and reusable core M&S capability consistent with the M&S technical framework prescribed by DoD. Effective FY98, efforts were organized around 4 product areas: (1) Engineering Studies and Analysis, to define the feasibility and applicability of proposed standards to Navy and to investigate service unique requirements for standards or guidance; (2) Products and Services, to develop the policy, standards, and common tools and services necessary to guide more efficient development and use of M&S across Navy; this includes development and management of the Navy M&S Information System (NMSIS), Navy counterpart to the DOD M&S Resource Repository, to provide a central M&S information resource to reduce stovepiped development, promote tool reuse and support informed M&S investment decisions; (3) M&S Quality Assurance Program, to establish and manage a disciplined process of model verification, validation and accreditation (VV&A) required by current directives; (4) Simulation Experiments, to test distributive simulation technology in fleet exercises, experiments, and pilot efforts which demonstrate and examine the value and limitations of proposed standards (such as HLA and JMASS) to mission and program requirements.

Note: In FY 2000 a Technical Change moves the Naval Modeling and Simulation X2222 Project from Program Element 0605853N to Program Element 0308601N in order to more accurately describe the Naval Modeling and Simulation Project.

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PROGRAM ELEMENT TITLE: Management, Technical & International Support

DATE: FEBRUARY 1999

PROJECT NUMBER: X2222

PROJECT TITLE: Naval Modeling &
Simulation

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1998 ACCOMPLISHMENTS: SEE PE 0308601N

2. (U) FY 1999 PLAN:

- (U) (\$1,440) Engineering Studies and Analysis: Conduct engineering studies and analysis aimed at determining the feasibility and applicability of proposed standards or technical approaches to Navy and at investigating service unique requirements for standards or guidance. Individual study thrusts will focus on developing or evaluating approaches to optimize training, assessments and acquisition functional/mission objectives through more efficient development and use of M&S. Phase II of Maritime Virtual Environmental Data Specification (MARVEDS), will support a team of representatives from several facets of the acquisition community, together with participants from ONR and Oceanographer of the Navy and the Navy M&S Technical Support Group to collaborate on the development of an information model, data format, data dictionary, algorithms, techniques, and database management system that can define and mediate the environmental data required to enable a virtual prototype. A standard for simulation environments is critical to enabling Simulation Based Acquisition (SBA).
- (U) (\$2,822) Products and Services: Continue development of common services, tools, and data bases. Provide the necessary planning and coordination of M&S efforts across the navy M&S Functional Areas, other Services, OSD, Joint Staff, and other agencies to develop policies and procedures necessary for M&S standardization within Navy and DoD. Manage and maintain the Navy Modeling and Simulation Information System (NMSIS), as a central M&S information resource to reduce stovepiped development, promote standardization and reuse and support informed M&S investment decision making across Navy. Develop standards for modeling communication networks and information systems with the overarching objective of facilitating the development of a core, reusable, communications M&S capability which supports the full range of architecture and engineering design and analysis requirements across Navy.

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PROJECT NUMBER: X2222

PROJECT TITLE: Naval Modeling &
Simulation

- (U) (\$800) M&S Quality Assurance Program: Implement and manage the Naval M&S Verification, Validation, and Accreditation (VV&A) process and guidelines for modeling and simulation and the Verification, Validation, and Certification (VV&C) process and guidelines for data. Maintain and operate the Naval M&S VV&A/VV&C repository. Establish and implement a VV&A/VV&C training curriculum for developers and accredits. Provide annual VV&A/VV&C assessment to the CNO.
- (U) (\$3,273) Simulation Experiments: Support Fleet Exercise simulation experiments and the application of distributed simulation to a wide variety of operational, research and development, training, test and evaluation exercises. Develop a series of simulation projects to test and evolve the standards for models, interfaces, data, and tools necessary to enable the seamless access and use of operationally relevant M&S to support the range of Navy training, warfare assessments and acquisition requirements.

3. (U) FY 2000 PLAN: N/A See PE 0308601N

B. (U) PROGRAM CHANGE SUMMARY: FY 1998 Funds were reduced -\$75K for the SBIR Assessment. In FY2000 and later, a technical change moves this Project to Program Element 0308601N in order to more accurately portray the Naval Modeling and Simulation Project.

C. (U) OTHER PROGRAM FUNDING SUMMARY:

	FY1998	FY1999	FY2000
O&M,N PE0204662N/1C1C (Partial)			
	0	774	See PE 0308601N

(U) RELATED RDT&E: Not applicable.

(U) SCHEDULE PROFILE: Not applicable.

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Exhibit R-2a, RDT&E Budget Item Justification (X2222)
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FY 2000 President's Budget Estimate

EXHIBIT R-2a, FY 2000 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N
PROGRAM ELEMENT TITLE: Management, Technical & International Support

DATE: February 1999
PROJECT NUMBER: W2347
PROJECT TITLE: Test & Evaluation
 Modeling &
 Simulation

(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
W2347 Test and Evaluation Modeling and Simulation	0	0	2,199	2,240	2,549	2,744	2,780	2,895	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project enhances the Test and Evaluation (T&E) efforts of the Navy by providing policy, coordination, and technical support for the Modeling and Simulation (M&S) program. The mission is to promote and standardize modeling and simulation for interoperability and re-use within and between programs and across the Research Development Test and Evaluation community. This also provides funds to incrementally establish the Joint Synthetic Test and Evaluation Battlespace (JSTEB) Joint Operational Requirements document. Test and Evaluation Modeling and Simulation (TEMS) is required to reduce the cost, schedule, and risk of acquisition programs by supporting the early integration of M&S capabilities into the T&E process.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: Budget Activity 6: This program is funded under Research, Development Test and Evaluation management support because it supports the operations and installations required for general research and development.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (u) FY 1998 ACCOMPLISHMENTS: N/A New Start in FY 2000
2. (U) FY 1999 PLAN: N/A
3. (U) FY 2000 PLAN:
 - (U) (\$2,199) Demonstrate the re-use, interoperability and cost benefit of integrated M&S in T&E through pilot programs. Complete the acquisition and T&E road map for the JSTEB. Continue defining test capabilities and methods to reduce Limitations to Test Scope referred to in TEMPs using M&S. Continue to support Navy M&S policy, coordination, and technical support. Continue

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Exhibit R-2a, RDT&E Budget Item Justification (W2347)
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FY 2000 President's Budget Estimate

EXHIBIT R-2a, FY 2000 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical & International Support

DATE: February 1999

PROJECT NUMBER: W2347

PROJECT TITLE: Test & Evaluation
Modeling &
Simulation

to update the Navy TEMS Master Plan and the Program Management Plan. Continue to coordinate and leverage Army, Air Force, Joint, and OSD T&E M&S initiatives. Continue to maintain the Navy T&E Repository for M&S. Continue to provide technical support to the Navy acquisition community using T&E modeling and simulation resources.

- B. (U) PROGRAM CHANGE SUMMARY: Funding for FY1999 was eliminated as the result of a Congressional reduction to management, infrastructure and support. FY 2000 reflects an increase of \$500 thousand for T&E Modeling and Simulation and \$295 thousand for programmatic adjustments. This increase is partially offset by a decrease of \$59 thousand for pricing adjustments.
- C. (U) OTHER PROGRAM FUNDING SUMMARY: Not Applicable

RELATED RDT&E

- (U) P.E. 0604759N: Major T&E Investment
(U) P.E. 0605864N: Test and Evaluation Support

- D. (U) SCHEDULE PROFILE: Not Applicable

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Exhibit R-2a, RDT&E Budget Item Justification (W2347)
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