

UNCLASSIFIED

DATE: February 2000

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROGRAM ELEMENT TITLE: Threat Simulator Development

(U) COST: (Dollars in Thousands)

<u>Project Number & Title</u>	<u>FY 1999 Actual</u>	<u>FY 2000 Budget</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
E0602 Electronic Warfare Environment Simulation (ECHO)	13,329	16,087	13,557	17,980	18,208	16,465	17,422	Cont.	Cont.
E0672 Effectiveness of Navy Electronic Warfare Systems (ENEWS)	9,804	0	0	0	0	0	0		
R0672 Effectiveness of Navy Electronic Warfare Systems (ENEWS)	0	13,394*	10,736	13,458	13,805	14,011	14,646	Cont.	Cont.
TOTAL	23,133	29,481	24,293	31,438	32,013	30,476	32,068	Cont.	Cont.

Quantity of RDT&E Articles: N/A

*All funds transferred to project R0672.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This is a continuing program that consolidates the design, fabrication and integration of Naval Electronic Warfare (EW) threat simulators for increased managerial emphasis and coordination. These simulator development efforts provide realistic Developmental and Operational Test and Evaluation (DT&E/OT&E) environments to test Tri-Services EW systems and defensive tactics. These projects develop former Soviet and Free-World Anti-Air and Anti-Ship weapon systems simulators in accordance with the Services requirements.

(U) The E0602 Project, EW Environment Simulation (ECHO) provides airborne system component level Test and Evaluation (T&E) at the Electronic Combat Simulation and Evaluation Laboratory (ECSEL), Naval Air Warfare Center Weapons Division (NAWCWD), Point Mugu, CA. ECHO also provides a secure anechoic closed loop T&E facility for fully integrated, aircraft-installed systems testing at the EW Integrated Systems Test Laboratory (EWISTL) at the Naval Air Warfare Center Aircraft Division (NAWCAD), Patuxent River, MD. Included in this Project is the T&E of airborne systems and tactics in flight, against the open air range at the Electronic Combat Range (ECR) complex located at the NAWCWD, China Lake, CA.

(U) The R0672 Project (formally E0672), Effectiveness of Navy EW Systems (ENEWS), is a Department of the Navy (DON) unique project that supports Test and Evaluation of Ships EW efforts. ENEWS provides T&E for surface and subsurface shipboard systems and tactics in digitally modeled battle scenarios at the component, fully integrated single ship, multi-ship and full-up multi-platform battle group levels. ENEWS also provides a secure anechoic closed loop T&E facility specifically designed to test shipboard systems at the stand alone subsystem or fully integrated systems level. The last and largest portion of this project addresses the flyable Infrared and Radio Frequency simulators flown on specially configured NP-3D aircraft to provide at-sea open air T&E for systems and tactics. All ENEWS assets are developed, operated and maintained by the Naval Research Laboratory (NRL), Washington, DC.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research, and development use.

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EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

(U) COST: (Dollars in Thousands)

<u>Project Number & Title</u>	<u>FY 1999 Actual</u>	<u>FY 2000 Budget</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
E0602 Electronic Warfare Environment Simulation (ECHO)	13,329	16,087	13,557	17,980	18,208	16,465	17,422	Cont.	Cont.
TOTAL	13,329	16,087	13,557	17,980	18,208	16,465	17,422	Cont.	Cont.

Quantity of RDT&E Articles: N/A

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The objective of this project is development of necessary simulation facilities and approaches to allow determination of the effectiveness of EW in real world engagement situations and to support the introduction of modern, effective systems into Naval Aviation. The heavy use of test resources by all Services demonstrates the importance of these assets. The Navy has been very successful in executing all of its major programs, and to date has had no major technical problems.

(U) The EW Environment Simulation (ECHO) project is unique in that it is the only program within the Department of Defense (DOD) which develops and provides Naval anti-air warfare threat assets for Testing and Evaluation (T&E) and is a critical part of the Office of the Secretary of Defense (OSD) Test Resource Master Plan. The OSD Master Plan employs many ECHO project resources for planning, analysis, testing and verification of airborne EW equipment.

(U) This project directly supports the T&E requirements of the following programs: High Speed Anti-Radiation Missile, ALR-67(V)2,3,4, ALQ-126B, AN/ALQ-156, EW Advanced Technology (EWAT), Integrated Defensive Electronic Countermeasures (IDECM) (including the Radio Frequency Countermeasures (RFCM), Common Missile Warning System (CMWS), and Advanced Strategic Tactical Expendables (ASTE) subsystem T&E milestones), AVR-2, AAR-47, ALE-50, as well as other Tri-Service EW systems with initial operational capability dates in the 1990's and early 2000's.

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

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PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 1999 ACCOMPLISHMENTS:

- (U) (\$625) Completed Ultra Violet (UV) Stimulator.
- (U) (\$3,103) Completed I-23 Advanced Capability.
- (U) (\$1,774) Initiated/Completed J-Band Advanced Threat Simulator (JBATS) Enhanced Capabilities.
- (U) (\$300) Initiated replacement of Fire and Forget Missile System.
- (U) (\$1,993) Continued I-23 additional seeker integration.
- (U) (\$1,003) Initiated Advanced Multiple-Emitter Simulator Direction Finding Modification.
- (U) (\$739) Continued Blue Army Threat Seeker for Missile on Mountain (MOM).
- (U) (\$90) Continued Validation and Updates – Simulator Validation (SIMEVAL).
- (U) (\$263) Continued Validation and Updates - Radar Updates.
- (U) (\$80) Continued Validation and Updates - Missile/Gun Updates.
- (U) (\$459) Continued Validation and Updates - Validation.
- (U) (\$1,025) Continued ECHO technical and engineering support.
- (U) (\$998) Continued ECHO Systems Engineering activity.
- (U) (\$877) Continued ECHO Test Requirements activity.

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PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

2. FY 2000 PLAN:

- (U) (\$466) Complete replacement of Fire and Forget Missile System.
- (U) (\$750) Complete I-23 additional seeker integration.
- (U) (\$2,065) Continue Advanced Multiple-Emitter Simulator Direction Finding Modification.
- (U) (\$1,546) Continue Blue Army Threat Seeker for Missile on Mountain (MOM).
- (U) (\$500) Continue SUTLER HITCH
- (U) (\$1,675) Initiate RADAR Signal Density Environment (RSDE) Mobile.
- (U) (\$3,572) Initiate Hybrid Laboratory Simulator (HLS) MOBCAP Upgrades.
- (U) (\$593) Initiate IR/UV/RF Sensor/Facilities Integration.
- (U) (\$1,000) Initiate/Complete Infrared Seeker Evaluation Van/Airborne Turret Infrared Measurement System (IRSEV/ATIMS).
- (U) (\$100) Continue Validation and Updates - SIMEVAL.
- (U) (\$485) Continue Validation and Updates - Radar and Weapon Simulator Updates.
- (U) (\$63) Continued Validation and Updates - Missile/Gun Updates.
- (U) (\$575) Continue Validation and Updates - Validation.
- (U) (\$1,063) Continue ECHO technical and engineering support.
- (U) (\$571) Continue ECHO System Engineering activity.
- (U) (\$1,063) Continue ECHO Test Requirements activity.

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PROGRAM ELEMENT: 0604256N
PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT NUMBER: E0602
PROJECT TITLE: ECHO

3. FY 2001 PLAN:

- (U) (\$1,500) Complete Advanced Multiple-Emitter Simulator Direction Finding Modification.
- (U) (\$750) Complete Blue Army Threat Seeker for Missile on Mountain (MOM).
- (U) (\$750) Complete SUTLER HITCH.
- (U) (\$2,000) Complete RADAR Signal Density Environment (RSDE) Mobile.
- (U) (\$1,712) Complete HLS MOBCAP Upgrades.
- (U) (\$326) Complete IR/UV/RF Sensor/Facilities Integration.
- (U) (\$1,646) Initiate SA-XX Seeker Integration.
- (U) (\$1,773) Initiate IR Target Array.
- (U) (\$100) Continue Validation and Updates - SIMEVAL.
- (U) (\$75) Continue Validation and Updates - Radar and Weapon Simulator Updates.
- (U) (\$75) Continue Validation and Updates - Missile/Gun Updates.
- (U) (\$400) Continue Validation and Updates - Validation.
- (U) (\$1,200) Continue ECHO technical and engineering support.
- (U) (\$150) Continue ECHO System Engineering activity.
- (U) (\$1,100) Continue ECHO Test Requirements activity.

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DATE: February 2000

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PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

(U) B. PROGRAM CHANGE SUMMARY

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
(U) FY 2000 President's Budget:	14,358	16,176	13,687
(U) Appropriated Value	14,403	16,176	
(U) Adjustments from PRESBUDG:	-1,029	-89	-130
(U) FY 2001 President's Budget Submit:	13,329	16,087	13,557

CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1999 net decrease of \$1,029 thousand reflects a reduction of \$300 thousand for a Small Business Innovative Research assessment, a decrease of \$626 thousand for a reprioritization of requirements within the Navy, a reduction of \$67 thousand for inflation savings, and a reduction of \$36 thousand for the payment of lapsed liability contracts. The FY 2000 decrease reflects a \$89 thousand reduction for an across-the-board Congressional rescission. The FY 2001 net decrease of \$130 thousand reflects a decrease of \$29 thousand for Strategic Sourcing Plan savings and Navy Working Capital Fund (NWCF) adjustments, an increase of \$18 thousand for military and civilian pay, a decrease of \$83 thousand for revised economic assumptions, and a decrease of \$36 thousand for reprioritization of requirements within the Navy.

(U) Schedule: Due to the adjustments in FY 1999, the Advanced Multiple-Emitter Simulator Direction Finding Modification project completion was delayed until FY2001.

(U) Technical: Not applicable

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

Related RDT&E: Not applicable

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PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

(U) C. ACQUISITION STRATEGY: The Electronic Warfare Threat Simulator Development program is a Non-ACAT Program which operates in accordance with the OPNAV approved Electronic Warfare Test and Evaluation Resource Investment Strategy (with no specific acquisition strategies). The Electronic Warfare Environment Simulation Project, under the Threat Simulator Development Program, is unique in that it is the only program within the Department of Defense dedicated solely to developing and providing Naval threat assets for test and evaluation and is a critical part of the Under Secretary of Defense for Acquisition (USD(A)) annual Electronic Warfare Plan. This plan employs many of the Electronic Warfare Simulation Development project resources for the planning, analysis, testing, and verification of airborne EW equipment. To preclude unwarranted intra-Service and inter-Service duplication, T&E resource requirements are coordinated through the OSD CROSSBOW Committee and the Navy Tri-Center complex for mutual support, cost reduction, and increased test effectiveness. The Navy's Electronic Warfare Test and Evaluation Resource Investment Strategy emphasizes a coordinated analysis and prioritization of Navy EW T&E requirements and implementation of disciplined design-to-cost techniques

(U) D. SCHEDULE PROFILE: Not applicable

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EXHIBIT R-3, FY 2001 RDT&E,N COST ANALYSIS

DATE: February 2000

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602
PROJECT TITLE: ECHO

<u>Cost Categories:</u>	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior Yrs Cost</u>	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>FY 2001 Cost</u>	<u>FY 2001 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
JBATS IH (HDW/SW Dev, Sys Integ)	PD	EWA/NSMA, China Lake, CA	2,558	559	Oct-98						3,117	3,117
ICAP III, TADIRCM, JETS (Rqmts)	PD	EWA/NSMA, China Lake, CA		600	Mar-99	1,000	Mar-00	1,000	Mar-01		2,600	2,600
I-23 (HDW/SW Dev, Sys Integ)	RX	CTA, China Lake, CA	2,143	2,305	Nov-98						4,448	4,448
HLS MOBCAP UPGRADES (HDW/SW Dev, Sys Integ)	PD	EWA/NSMA, China Lake, CA				2,000	Oct-99	1,000	Oct-00		3,000	3,000
RSDE MOB (HDW/SW Dev. Sys Integ)	RX	RPI, China Lake, CA				1,500	Oct-99	1,600	Oct-00		3,100	3,100
2 nd IR TARGET ARRAY	RX	TBD, China Lake, CA						800	Oct-00	1,200	2,000	2,000
Award Fee		EWA/CA				75	Dec-99	60	Mar-01		135	135
IR TGT (HDW/SW Dev, Sys Integ)	RX	TBD						1,500	Dec-00	3,200	4,700	4,700
HDW/SW Dev, Systems Engineering	WX	NAWC-WD, China Lake, CA	36,604	6,451	Dec-98	7,442	Dec-99	4,883	Dec-00	CONT	CONT	
Miscellaneous	Various		13,440	3,403	Dec-98	4,055	Feb-00	2,699	Feb-01	CONT	CONT	
Subtotal Product Development			54,745	13,318		16,072		13,542		CONT	CONT	
Not Applicable												
Subtotal Support			0	0		0		0		0	0	
Remarks												
Not Applicable												
Subtotal Test & Evaluation			0	0		0		0		0	0	
Remarks:												

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EXHIBIT R-3, FY 2001 RDT&E,N COST ANALYSIS

DATE: February 2000

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602
PROJECT TITLE: ECHO

<u>Cost Categories:</u>	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior Yrs Cost</u>	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>FY 2001 Cost</u>	<u>FY 2001 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
Travel		WX NADEP, Jax, FL	43	11	Oct-98	15	Oct-99	15	Oct-00	CONT	CONT	
Subtotal Management			43	11		15		15		CONT	CONT	
Remarks												
Total Cost			\$54,788	\$13,329		\$16,087		13,557		CONT	CONT	

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EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ENEWS

(U) COST: (Dollars in Thousands)

<u>Project Number & Title</u>	<u>FY 1999 Actual</u>	<u>FY 2000 Estimate</u>	<u>FY 2001 Estimate</u>	<u>FY 2002 Estimate</u>	<u>FY 2003 Estimate</u>	<u>FY 2004 Estimate</u>	<u>FY 2005 Estimate</u>	<u>To Complete</u>	<u>Total Program</u>
R0672 Effectiveness of Navy Electronic Warfare Systems {ENEWS}	*9,804	13,394	10,736	13,458	13,805	14,011	14,646	Cont.	Cont.
TOTAL	9,804	13,394	10,736	13,458	13,805	14,011	14,646	Cont.	Cont.

* In FY 99 funding executed under E0672
Quantity of RDT&E Articles: N/A

A.(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The objective of the Effectiveness of Navy EW Systems (ENEWS) project is the development and application of necessary simulation assets to determine the effectiveness of EW for navy ships in real-world engagement situations and primarily supports the introduction of modern, effective shipboard and offboard EW systems, and tactics for the surface Navy. The heavy use of ENEWS resources by NAVSEA, OPTEVFOR and other EW RDT&E agencies speaks to the overall importance of these assets. The project provides support for EW system Design Engineering Test (ET), Development Test (DT), Operational Test (OT), and the development of tactics. Its quick reaction capabilities have had great impact on crisis situations such as the Lebanon and Libyan crises, the Iran Harpoon threat, the Persian Gulf crisis, and Operation Desert Shield/Storm.

(U) The primary threat to surface ships is Anti-Ship Capable Missile (ASCM) systems. The ENEWS project is unique in that it is the only project within the Department of Defense (DOD) dedicated to developing and providing realistic assets to test and evaluate the effectiveness of shipboard EW systems and tactics against these type threats.

(U) The ENEWS project is a critical part of the OSD Test Resource Master Plan. This plan employs many of the ENEWS assets for planning, analysis, testing and verification of shipboard and offboard EW systems, techniques and tactics. As part of its normal activities, ENEWS provides DT&E, OT&E and FOT&E support to the surface navy for all ship classes. Future DT, OT, and FOT support will include the SLQ-32 updates as required, R17.OX (NULKA, Giant IR Decoys), the phase-in of AIEWS in FY-00, Rapid Anti-ship Integrated Defense System (RAIDS), all MK245 GIANT tests, Advanced IR Decoys, Decoy placement (Littoral), Ship IR Signature, and RCS measurement of DDG-51, LPD-17 and DD-21 class ships, Multiband Anti-ship Cruise Missile Defense Tactical EW System (MATES), High Power Microwave (HPM) Program, and other Ship Self-Defense initiatives, including RDT&E 6.3A Advanced Technology Demonstrations and 6.2 EW Technology Base programs. In addition, ENEWS assets are regularly employed to test the effectiveness of NATO ships EW systems.

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PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ENEWS

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 1999 ACCOMPLISHMENTS:

- (U) (\$626) Continued Computer Simulation (COMSIM) System Readiness.
- (U) (\$336) Continued COMSIM Scenario Implementation, Environment Generator & System Engineering
- (U) (\$28) Continued COMSIM Validation Process Development (M&S)
- (U) (\$190) Continued COMSIM Instrumentation, Data Analysis and ASM Distributed Simulation Capability (Complete Display Enhancements)
- (U) (\$152) Continued COMSIM Threat Database Repository Updates
- (U) (\$293) Initiated COMSIM Anti Ship Missile Updates (4 Classified Systems)
- (U) (\$266) Initiated COMSIM Development of Anti Ship Missile Engagement Simulation
- (U) (\$2,734) Continued Radio Frequency Simulation (RFSIM) Simulator Readiness.
- (U) (\$1,111) Continued RFSIM Multi-Threat Processor Upgrade. (J-Band)
- (U) (\$213) Continued RFSIM OEM Simulator Upgrade. (Complete ROMEO)
- (U) (\$296) Completed RFSIM 2 Validation Reports
- (U) (\$254) Continued RFSIM CTS Target Fidelity Development (Study and Spec).
- (U) (\$91) Completed RFSIM Ground Truth Reference System.
- (U) (\$103) Continued RFSIM Analytical and Reporting Software (Complete Alpha tools).
- (U) (\$96) Initiated RFSIM Dual RF/ARM Seeker Simulator Development
- (U) (1,163) Continued Infrared Simulation (IRSIM) Readiness
- (U) (\$311) Initiated IRSIM FOXTROT Simulator Upgrades (SIM 1 & B1).
- (U) (\$251) Continued IRSIM VICTOR Simulator Upgrades (SIM B and SIM 3a) and System Eng.
- (U) (\$49) Completed IRSIM 1 Validation Report. (BANNER)
- (U) (\$53) Continued IRSIM MEIR II System Development. (01)
- (U) (\$195) Initiated IRSIM FOXTROT I and FOXTROT II Simulator Development.
- (U) (\$128) Continued IRSIM VICTOR I and VICTOR II Simulator Development.
- (U) (\$35) Continued IRSIM Lab/Field Systems
- (U) (\$830) Continued ENEWS Plans & Programs.

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PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ENEWS

2. FY 2000 PLAN:

- (U) (\$635) Continue COMSIM System Readiness.
- (U) (\$425) Continue COMSIM Scenario Implementation, Environment Generator & System Engineering
- (U) (\$175) Complete COMSIM 1 Validation Report
- (U) (\$165) Continue COMSIM Instrumentation, Data Analysis and ASM Distributed Simulation Capability Improvements
- (U) (\$220) Continue COMSIM Threat Database Repository Updates
- (U) (\$442) Continue COMSIM Anti Ship Missile Updates (4 Classified Systems-Complete KAPOK)
- (U) (\$493) Continue COMSIM Development of Anti Ship Missile Engagement Simulation (Complete INDIA)
- (U) (\$3,072) Continue RFSIM Simulator Readiness.
- (U) (\$1,300) Continue RFSIM Multi-Threat Processor Upgrade. (Complete J-Band)
- (U) (\$250) Continue RFSIM OEM Simulator Upgrades. (Complete OSCAR)
- (U) (\$300) Complete RFSIM 2 Validation Reports
- (U) (\$381) Complete RFSIM Dual RF/ARM Seeker Simulator.
- (U) (\$375) Initiate RFSIM CTS 3 Axis Flight Simulator.
- (U) (\$100) Continue RFSIM Analytical and Reporting Software (Complete India Tools).
- (U) (\$633) Continue RFSIM CTS Target Fidelity Development (Calibrated FA).
- (U) (1,078) Continue IRSIM Readiness
- (U) (\$229) Continue IRSIM FOXTROT Simulator Upgrades (SIM 1 and B1).
- (U) (\$191) Continue IRSIM VICTOR Simulator Upgrade (SIM B and SIM3a) and System Eng.
- (U) (\$150) Initiate IRSIM VICTOR Simulator Upgrade (SIM 4)
- (U) (\$54) Complete IRSIM 1 Validation Report.
- (U) (\$120) Continue IRSIM MEIR II System Development. (01) Flight Capability (04)
- (U) (\$162) Continue IRSIM FOXTROT I and FOXTROT II Simulator Development.
- (U) (\$525) Continue IRSIM VICTOR I and VICTOR II Simulator Development.
- (U) (\$185) Initiate IRSIM Littoral Warfare Sim 1 Hardware Development.
- (U) (\$145) Continue IRSIM Lab/Field Systems
- (U) (\$1,589) Continue ENEWS Plans & Programs.

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PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ENEWS

3. FY 2001 PLAN:

- (U) (\$660) Continue COMSIM System Readiness.
- (U) (\$240) Continue COMSIM Scenario Implementation, Environment Generator & System Engineering (Complete RADAR/Tactics Model Transitions)
- (U) (\$100) Continue COMSIM Validation (1 Report)
- (U) (\$100) Continue COMSIM Instrumentation, Data Analysis and ASM Distributed Simulation Capability (Complete Target Display)
- (U) (\$170) Continue COMSIM Threat Database Repository Updates
- (U) (\$250) Continue COMSIM Anti Ship Missile Updates (3 Classified Systems)
- (U) (\$485) Continue COMSIM Development of Anti Ship Missile Engagement Simulation
- (U) (\$2,283) Continue RFSIM Simulator Readiness.
- (U) (\$1,200) Continue RFSIM Multi-Threat Processor Upgrade. (I-Band)
- (U) (\$150) Continue RFSIM OEM Simulator Upgrades. (Complete TANGO)
- (U) (\$275) Continue RFSIM Validation (Complete 2 Validation Reports)
- (U) (\$175) Continue RFSIM CTS 3 Axis Flight Simulator.
- (U) (\$90) Continue RFSIM Analytical and Reporting Software (Complete November Tools).
- (U) (\$620) Continue RFSIM CTS Target Fidelity Development (Complete Intra-Pulse Mod).
- (U) (\$1,161) Continue IRSIM Readiness
- (U) (\$100) Continue IRSIM FOXTROT Simulator Upgrade (SIM 1 and Complete B1).
- (U) (\$92) Complete IRSIM VICTOR Simulator Upgrades (SIM B and SIM3a) and System Eng.
- (U) (\$60) Continue IRSIM VICTOR Simulator Upgrade (SIM 4)
- (U) (\$55) Continue IRSIM Validation (Complete 1 Validation Report).
- (U) (\$80) Continue IRSIM MEIR II System Development. (01) Flight Capability
- (U) (\$148) Continue IRSIM FOXTROT I and FOXTROT II Simulator Development.
- (U) (\$415) Continue IRSIM VICTOR I and VICTOR II Simulator Development.
- (U) (\$181) Continue IRSIM Littoral Warfare Sim 1 Hardware Development.
- (U) (\$1,646) Continue ENEWS Plans & Programs.

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PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ENEWS

(U) B. PROGRAM CHANGE SUMMARY

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
(U) FY 2000 President's Budget:	9,951	13,468	11,120
(U) Appropriated Value	9,997	13,468	
(U) Adjustments from PRESBUDG:	-147	-74	-384
(U) FY 2001 OSD/OMB Budget Submit:	9,804	13,394	10,736

CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1999 adjustments reflects a decrease for a Small Business Innovative Research assessment of \$58 thousand and a decrease for Below Threshold Reprogramming of \$19 thousand and a decrease for various rate adjustments of \$70 thousand. The FY00 decrease reflects Across the Board reduction of \$74 thousand. The FY01 net decrease of \$384 thousand is due to a decrease for Navy Working Capital Fund (NWCF) adjustments of \$318 thousand and a decrease for various rate adjustments of \$66 thousand.

(U) Schedule: Not applicable.

(U) Technical: Not applicable

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EXHIBIT R-2a, FY 2001 RDT&E,N BUDGET PROJECT JUSTIFICATION SHEET

DATE: February 2000

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: R0672

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ENEWS

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

Related RDT&E: Not applicable

(U) D. ACQUISITION STRATEGY: The Electronic Warfare Threat Simulator Development program is a Non-ACAT Program which operates in accordance with the OPNAV approved Electronic Warfare Test and Evaluation Resource Investment Strategy (with no specific acquisition strategies). The Effectiveness of Navy Electronic Warfare Systems Project, under the Threat Simulator Development Program, is unique in that it is the only program within the Department of Defense dedicated solely to developing and providing Anti-Ship Capable Missile threat assets for test and evaluation and is a critical part of the Under Secretary of Defense for Acquisition (USD(A)) annual Electronic Warfare Plan. This plan employs many of the Electronic Warfare Simulation Development project resources for the planning, analysis, testing, and verification of surface EW equipment. The Navy's Electronic Warfare Test and Evaluation Resource Investment Strategy emphasizes a coordinated analysis and prioritization of Navy EW T&E requirements and implementation of disciplined design-to-cost techniques.

(U) E. SCHEDULE PROFILE: Not applicable

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EXHIBIT R-3, FY 2001 RDT&E,N COST ANALYSIS

DATE: September 1999

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER:
PROJECT TITLE:

R0672
ENEWS

<u>Cost Categories:</u>	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior Yrs Cost</u>	<u>FY 1999 Cost</u>	<u>FY 1999 Award Date</u>	<u>FY 2000 Cost</u>	<u>FY 2000 Award Date</u>	<u>FY 2001 Cost</u>	<u>FY 2001 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
HDW/SW Dev, Sys Eng/Integ	WX	NRL, Wash DC	137,543	9,793	Oct98	13,394	Oct-99	10,736	Oct-00	CONT	CONT	
Subtotal Project Development			137,543	9,793		13,394		10,736		CONT	CONT	
Remarks												
Not Applicable												
Subtotal Support			0	0		0		0		0	0	
Remarks												
Not Applicable												
Subtotal Test & Evaluation			0	0		0		0		0	0	
Remarks												
Travel	WX	NADEP Jax, FL	43	11	Oct 98	0		0				
Subtotal Management			43	11		0		0				
Remarks												
Total Cost			137,586	9,804		13,394		10,736				

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