CLASSIFICATION:

EXHIB	IT R-2, RDT	&E Budget I	Item Justifica	ation				DATE:			
									Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NO	MENCLATUR	E			
RESEARCH DEVELOPMENT TEST & EVALUA	TION, NAV	Y /	BA-6			0604256N, Th	reat Simulator	Development			
	Prior										Total
COST (\$ in Millions)	Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Program
Total PE Cost		27.702	25.934	30.110						Continuing	Continuing
E0602 Electronic Warfare Environment Sim (ECHO)		14.689	13.412	16.421						Continuing	Continuing
R0672 Effectiveness of Navy E.W. Systems (ENEWS)		13.013	12.522	13.689						Continuing	Continuing
Quantity of RDT&E Articles Not Applicable											

- (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 Labratory (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 Infr 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.

CLASSIFICATION:

E	(HIBIT R-2a,	RDT&E Pro	ject Justifica	ation				DATE:			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	LEMENT NUME	BER AND NAM	IE	PROJECT NU	JMBER AND N	IAME			
RDT&E, N / BA-6	0604256N, Th	reat Simulator	Development			E0602, ECHC)				
	Prior										Total
COST (\$ in Millions)	Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Program
Project Cost		14.689	13.412	16.421						Continuing	Continuing
RDT&E Articles Qty Not Applicable											

- (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, 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 Expenditures (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 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.

CLASSIFICATION:

PPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT NUMBER AND NAME PROJECT NUMBER AND NAME DT&E, N / BA-6 PE 0604256N, Threat Simulator Development E0602, ECHO (U) PROGRAM ACCOMPLISHMENTS AND PLANS (continued): 1. FY 2000 ACCOMPLISHMENTS: - (U) (\$.459) Completed replacement of Fire and Forget Missile System (U) (\$.400) Initiated/Completed Infrared Seeker Evaluation Vari/Airborne Turret Infrared Measurement System (IRSEV/ATIMS) (U) (\$.410) Initiated/Completed Infrared Seeker Evaluation Vari/Airborne Turret Infrared Measurement System (IRSEV/ATIMS) (U) (\$.568) Initiated Radar Signal Density Environment (RSDE) Mobile (U) (\$.850) Continued L23 additional seeker integration (U) (\$.3.458) Initiated RUM/VIRF Sensor/Facilities Integration (U) (\$.3.458) Initiated RUM/VIRF Sensor/Facilities Integration (U) (\$.501) Continued Validation and Updates- Simulation Validation (SIMVAL) (U) (\$.503) Continued Validation and Updates- Radar and Weapon Simulator Updates (U) (\$.503) Continued Validation and Updates- Validation (U) (\$.1341) Continued ECHO technical and engineering support (U) (\$.509) Continued ECHO System Engineering activity.		E	XHIBIT R-2a, RDT&E Project Justification	DATE:	
(U) PROGRAM ACCOMPLISHMENTS AND PLANS (continued): 1. FY 2000 ACCOMPLISHMENTS: - (U) (\$.459) Completed replacement of Fire and Forget Missile System (U) (\$.400) Continued SUTLER HITCH to support ASTE, Navy Advanced Expendables (U) (\$.400) Initiated/Completed Infrared Seeker Evaluation Van/Airborne Turret Infrared Measurement System (IRSEV/ATIMS) (U) (\$.1711) Continued Advanced Multiple-Emitter Simulator Direction Finding Modification (U) (\$.850) Continued L23 additional seeker integration (U) (\$.350) Continued L23 additional seeker for Missile on Mountain (MOM) (U) (\$.933) Initiated Hybrid Laboratory Simulator (HLS) MOBCAP Upgrades (U) (\$.593) Initiated HyUV/RF Sensor/Facilities Integration (U) (\$.000) Continued Validation and Updates- Radar and Weapon Simulator Updates (U) (\$.001) Continued Validation and Updates- Wissile/Gun Updates (U) (\$.003) Continued Validation and Updates- Wissile/Gun Updates (U) (\$.003) Continued Validation and Updates- Validation (U) (\$.004) Continued Validation and Updates- Validation (U) (\$.005) Continued Validation and Updates- Validation (U) (\$.005) Continued Validation and Updates- Validation (U) (\$.006) Continued CEHO technical and engineering support (U) (\$.007) Continued ECHO System Engineering activity.	DDD ODDIA TION (OLIDOST ACTIVITY	IDDOODAN ELEMENTALIMEDED AND MANE	June 2001	
(U) PROGRAM ACCOMPLISHMENTS AND PLANS (continued): 1. FY 2000 ACCOMPLISHMENTS: - (U) (\$.459) Completed replacement of Fire and Forget Missile System (U) (\$.400) Continued SUTLER HITCH to support ASTE, Navy Advanced Expendables (U) (\$.401) Initiated/Completed Infrared Seeker Evaluation Van/Airborne Turret Infrared Measurement System (IRSEV/ATIMS) (U) (\$1.711) Continued Advanced Multiple-Emitter Simulator Direction Finding Modification (U) (\$1.668) Initiated Radar Signal Density Environment (RSDE) Mobile (U) (\$.850) Continued Islae Army Threat Seeker for Missile on Mountain (MOM) (U) (\$3.458) Initiated Hybrid Laboratory Simulator (HLS) MOBCAP Upgrades (U) (\$.593) Initiated IR/UV/RF Sensor/Facilities Integration (U) (\$.501) Continued Validation and Updates- Simulation Validation (SIMVAL) (U) (\$.503) Continued Validation and Updates- Radar and Weapon Simulator Updates (U) (\$.415) Continued ECHO technical and engineering support (U) (\$.506) Continued ECHO System Engineering activity.					
1. FY 2000 ACCOMPLISHMENTS: - (U) (\$.459) Completed replacement of Fire and Forget Missile System (U) (\$.400) Continued SUTLER HITCH to support ASTE, Navy Advanced Expendables (U) (\$.400) Initiated/Completed Infrared Seeker Evaluation Van/Airborne Turret Infrared Measurement System (IRSEV/ATIMS) (U) (\$.1.711) Continued Advanced Multiple-Emitter Simulator Direction Finding Modification (U) (\$.681) Initiated Radar Signal Density Environment (RSDE) Mobile (U) (\$.850) Continued I-23 additional seeker integration (U) (\$.1.260) Continued Blue Army Threat Seeker for Missile on Mountain (MOM) (U) (\$.3.458) Initiated Hybrid Laboratory Simulator (HLS) MOBCAP Upgrades (U) (\$.593) Initiated IR/UV/RF Sensor/Facilities Integration (U) (\$.501) Continued Validation and Updates- Simulation (SIMVAL) (U) (\$.063) Continued Validation and Updates- Radar and Weapon Simulator Updates (U) (\$.13.141) Continued Validation and Updates- Validation (U) (\$.13.141) Continued ECHO technical and engineering support (U) (\$.569) Continued ECHO System Engineering activity.	RDT&E, N /	BA-6	PE 0604256N, Threat Simulator Development	E0602, ECHO	
1. FY 2000 ACCOMPLISHMENTS: - (U) (\$.459) Completed replacement of Fire and Forget Missile System (U) (\$.400) Continued SUTLER HITCH to support ASTE, Navy Advanced Expendables (U) (\$.401) Initiated/Completed Infrared Seeker Evaluation Van/Airborne Turret Infrared Measurement System (IRSEV/ATIMS) (U) (\$.1.711) Continued Advanced Multiple-Emitter Simulator Direction Finding Modification (U) (\$.1.668) Initiated Radar Signal Density Environment (RSDE) Mobile (U) (\$.3.450) Continued I-23 additional seeker integration (U) (\$.3.458) Initiated Hybrid Laboratory Simulator (HLS) MOBCAP Upgrades (U) (\$.593) Initiated HyU/RF Sensor/Facilities Integration (U) (\$.501) Continued Validation and Updates- Simulation Validation (SIMVAL) (U) (\$.063) Continued Validation and Updates- Radar and Weapon Simulator Updates (U) (\$.063) Continued Validation and Updates- Validation (U) (\$.1314) Continued ECHO technical and engineering support (U) (\$.508) Continued ECHO System Engineering activity.	(U) PROG	GRAM ACCOMPLISHMENTS	AND PLANS (continued):		
- (U) (\$.400) Continued SUTLER HITCH to support ASTE, Navy Advanced Expendables (U) (\$.400) Initiated/Completed Infrared Seeker Evaluation Van/Airborne Turret Infrared Measurement System (IRSEV/ATIMS) (U) (\$1.711) Continued Advanced Multiple-Emitter Simulator Direction Finding Modification (U) (\$1.668) Initiated Radar Signal Density Environment (RSDE) Mobile (U) (\$1.260) Continued I-23 additional seeker integration (U) (\$1.260) Continued Blue Army Threat Seeker for Missile on Mountain (MOM) (U) (\$3.458) Initiated Hybrid Laboratory Simulator (HLS) MOBCAP Upgrades (U) (\$.593) Initiated IR/UV/RF Sensor/Facilities Integration (U) (\$1.00) Continued Validation and Updates- Simulation Validation (SIMVAL) (U) (\$0.603) Continued Validation and Updates- Missile/Gun Updates (U) (\$1.314) Continued Validation and Updates- Validation (U) (\$1.314) Continued ECHO technical and engineering support (U) (\$1.569) Continued ECHO System Engineering activity.	, ,		,		
	- - - - - - - - - -	(U) (\$.400) Continued SUT (U) (\$.400) Initiated/Comp (U) (\$1.711) Continued Adv (U) (\$1.668) Initiated Radar (U) (\$.850) Continued I-23 (U) (\$1.260) Continued Blue (U) (\$3.458) Initiated Hybric (U) (\$.593) Initiated IR/UV/ (U) (\$.100) Continued Valic (U) (\$.063) Continued Valic (U) (\$.415) Continued Valic (U) (\$.569) Continued ECH	LER HITCH to support ASTE, Navy Advanced Expendables. leted Infrared Seeker Evaluation Van/Airborne Turret Infrared Nanced Multiple-Emitter Simulator Direction Finding Modification Signal Density Environment (RSDE) Mobile. additional seeker integration. Army Threat Seeker for Missile on Mountain (MOM). It Laboratory Simulator (HLS) MOBCAP Upgrades. RF Sensor/Facilities Integration. dation and Updates- Simulation Validation (SIMVAL). dation and Updates- Radar and Weapon Simulator Updates. lation and Updates- Missile/Gun Updates. dation and Updates- Validation. HO technical and engineering support.		

CLASSIFICATION:

	EX	KHIBIT R-2a, RDT&E Project Justification		DATE:
		·		June 2001
APPROPRIATIO	N/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	ÎAME
RDT&E, N /	BA-6	PE 0604256N, Threat Simulator Development	E0602, ECHO	
(U) PRO	OGRAM ACCOMPLISHMENTS A	ND PLANS:		
2.	. FY 2001 PLANS:			
		R HITCH to support ASTE, Navy Advanced Expendables.		
	- (U) (\$1.768) Initiate IR Target	Array. ed Multiple-Emitter Simulator Direction Finding Modification.		
		Signal Density Environment (RSDE) Mobile.		
	- U) (\$.350) Complete I-23 add	• , ,		
	, ,	rmy Threat Seeker for Missile on Mountain (MOM).		
	- (U) (\$2.818) Continue Hybrid	Laboratory Simulator (HLS) MOBCAP Upgrades.		
	, , , ,	support of RF countermeasure programs Seeker Integration.		
	. , ,	lultra violet radio frequency (IR/UV/RF) Sensor/Facilities Integ	ration.	
	- (U) (\$.100) Continue Validati			
		on and Updates- Radar and Weapon Simulator Updates.		
	. , . ,	on and Updates- Validation.		
		technical and engineering support.		
	, , , ,	System Engineering activity.		
	- (U) (\$1.029) Continue ECHO - (U) (\$.087) Portion of extram	rest Requirements activity. ural program reserved for Small Business Innovation Researc	a assessment in accordance with 1	15 USC 68
	- (Ο) (ψ.υσι) I Oluon of extrain	arai program reserved for Small Dusiness inhovation Nesearc	i assessinent in accordance with	10 000 00.

CLASSIFICATION:

		EXHIBIT R-2a, RDT&E Project Justification		DATE:
				June 2001
PROPRIATION/F	BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND	NAME
DT&E, N /	BA-6	PE 0604256N, Threat Simulator Development	E0602, ECHO	
(U) PROGR	RAM ACCOMPLISHMENTS	AND PLANS:		
3. F)	Y 2002 PLANS:			
	J) (\$1.019) Initiate IR/U\			
	J) (\$1.600) Initiate IR Stir J) (\$2.763) Continue IR T			
•	, ,	anget Array. anced Multiple-Emitter Simulator Direction Finding Modification.		
•	J) (\$.750) Initiate Advan			
		grammable Early Warning (EW)/Acquisition (ACQ) Radar.		
,		rid Laboratory Simulator (HLS) MOBCAP Upgrades.		
,		XX for support of RF countermeasure programs Seeker Integrati	on.	
- (I	J) (\$.243) Initiate remot	e/terminal electronic combat range- electronic combat simulation	and evaluation laboratory (R/T	ECR-ECSEL) Link.
(,	J) (\$.075) Initiate air coi	mbat environment test and evaluation facility (ACETEF) IR Instru	mentation	
,		fibat environment test and evaluation facility (ACLTEF) IN Instit	inionation.	
- (l	, ,	evelop 1 vs 1 IR Alert/Response.	monaton.	
- (\ - (\ - (\	J) (\$.410) Initiate and c	evelop 1 vs 1 IR Alert/Response. evelop 1 vs 2 IR Alert/Response.		
- (l - (l - (l - (l	J) (\$.410) Initiate and c J) (\$.100) Continue Vali	evelop 1 vs 1 IR Alert/Response. evelop 1 vs 2 IR Alert/Response. dation and Updates- SIMVAL.		
- (l - (l - (l - (l - (l	J) (\$.410) Initiate and c J) (\$.100) Continue Valid J) (\$.375) Continue Valid	evelop 1 vs 1 IR Alert/Response. evelop 1 vs 2 IR Alert/Response. dation and Updates- SIMVAL. dation and Updates- Radar and Weapon Simulator Updates.		
- (l - (l - (l - (l - (l - (l	J) (\$.410) Initiate and c J) (\$.100) Continue Vali J) (\$.375) Continue Vali J) (\$.375) Continue Vali	evelop 1 vs 1 IR Alert/Response. evelop 1 vs 2 IR Alert/Response. dation and Updates- SIMVAL. dation and Updates- Radar and Weapon Simulator Updates. dation and Updates- Missile/Gun Updates.		
- (l - (l - (l - (l - (l - (l - (l	J) (\$.410) Initiate and c J) (\$.100) Continue Vali J) (\$.375) Continue Vali J) (\$.375) Continue Vali J) (\$.400) Continue Vali	evelop 1 vs 1 IR Alert/Response. evelop 1 vs 2 IR Alert/Response. dation and Updates- SIMVAL. dation and Updates- Radar and Weapon Simulator Updates. dation and Updates- Missile/Gun Updates. dation and Updates- Validation.		
- (l - (l - (l - (l - (l - (l - (l	J) (\$.410) Initiate and c Continue Vali J) (\$.375) Continue Vali J) (\$.375) Continue Vali J) (\$.400) Continue Vali Continue ECI	evelop 1 vs 1 IR Alert/Response. evelop 1 vs 2 IR Alert/Response. dation and Updates- SIMVAL. dation and Updates- Radar and Weapon Simulator Updates. dation and Updates- Missile/Gun Updates. dation and Updates- Validation. HO technical and engineering support.		
- (\ - (\ - (\ - (\ - (\ - (\ - (\ - (\	J) (\$.410) Initiate and c Continue Valid J) (\$.375) Continue Valid J) (\$.375) Continue Valid J) (\$.400) Continue Valid J) (\$1.396) Continue ECI J) (\$.300) Continue ECI	evelop 1 vs 1 IR Alert/Response. evelop 1 vs 2 IR Alert/Response. dation and Updates- SIMVAL. dation and Updates- Radar and Weapon Simulator Updates. dation and Updates- Missile/Gun Updates. dation and Updates- Validation.		

CLASSIFICATION:

	ļ	EXHIBIT R-2a, RDT&E	Project Justi	ification		DATE:
						June 2001
APPROPRIATION/BI	JDGET ACTIVITY	PROGRAM ELE	MENT NUMB	ER AND NAME	PROJECT NUMBER AND N	NAME
RDT&E, N /	BA-6	PE 0604256N, 1	Threat Simulate	or Development	E0602, ECHO	
(U) B. PROGRAM CH	HANGE SUMMARY:					
		FY2000	FY2001	FY2002		
(U) FY 2001 Preside	nt's Budget:	16.087	13.557	17.980		
(U) Adjustments from	n the President's Budget:	-1.398	-0.145	-1.559		
(U) FY 2002/2003 O	SD/OMB Budget Submit:	14.689	13.412	16.421		

CHANGE SUMMARY EXPLANATION:

(U) Funding:

The FY 2000 net decrease of \$1.398 million consists of \$ 1.126 million decrease for a reprioritization of requirements within the Navy, \$.209 million decrease for Small Business Inovative Research assessment, and \$0.063 million decrease for a Congressional Recission. The FY 2001 net decrease of \$.145 million consists of \$ 0.020 million decrease for a reprioritization of requirements within the Navy and \$0.125 million decrease for a Congressional Recission. The FY 2002 net decrease of \$1.559 million consists of \$1.420 million decrease for a reprioritization of requirements within the Navy and \$0.139 million decrease for economic assumptions.

- (U) Schedule: Schedule changes from the President's budget are a direct result of the funding changes identified above. The FY 2000 decrease resulted in the IR/UV/RF Sensor/Facilities Integration effort being descoped. Plans and specifications for some portions of this outyear analysis task will now not be completed until FY 2002. The FY 2000 decrease also resulted in the Blue Army Threat Seeker for Missile on Mountain project being descoped. The advanced multiple emitter simulator (AMES) Advanced Modulation project will be delayed two years (from FY02 to FY04). The Reprogrammable surface-to-Air missiles air interceptors (SAMs/ALs) will be delayed two years (from FY03 to FY05). The Micro tactical electronic warfare environment simulator (TEWES) replacement project is no longer required.
- (U) C. OTHER PROGRAM FUNDING SUMMARY: 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 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 Test Investment Coordinating 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) E. SCHEDULE PROFILE: Not applicable

CLASSIFICATION:

								DATE:			
Exhibit R-3 Cost Analysis (p	age 1)								June 2001		
APPROPRIATION/BUDGET ACT	IVITY	PROGRAM E	LEMENT			PROJECT NU	IMBER AND I	NAME			
RDT&E, N / BA-6			, Threat Simul	ator Developr		E0602, ECHC			-		
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date		Cost to Complete	Total Cost	Target Value of Contract
IR Target Array		TSC, Los Angeles, CA		0.70	00 01/01	0.500			Continuing	Continuing	
IR Target Array	WX	NAWC-WD, China Lake, CA		0.80		1.963			Continuing		
IR Target Array	C/CPFF	EWA, Ridgecrest, CA		0.20	00 11/00	0.200	10/01		Continuing	Continuing	0.600
AMES DF Modification	C/FFP	COMPTEK, Elmhurst, NY	2.511	0.75	50 11/00	0.350	10/01			3.611	3.61
RSDE Mobile	WX	NAWC-WD, China Lake, CA	1.668	3 2.1	80 11/00					3.848	3
Blue Army Seeker	C/CPFF	GTRI, Atlanta, GA	1.729	0.69	90 11/00					2.419	2.419
HLS MOBCAP	C/CPFF	EWA, Marlton, NJ	1.700	1.6	49 11/00	0.618	11/01			3.967	7 3.96
Award Fees		EWA, Marlton, NJ	0.120	0.0	95 11/00	0.043	11/01			0.258	0.258
SA-XX Seeker Integration	WX	NAWC-WD, China lake, CA		0.0	68 11/00	0.477	11/01		Continuing	Continuing	9
IR Stimulator	C/CPFF	TBD, China lake, CA				1.600	11/01		Continuing	Continuing	5.860
1V1 IR Alert/Response	C/CPFF	TBD, China lake, CA				3.197	01/02		Continuing	Continuing	3.460
1V2 IR Alert/Response	C/CPFF	TBD, China lake, CA				0.410	01/02		Continuing	g Continuing	3.51
Hdw/Sw Dev. Systems Engineering	WX	NAWC-WD, China Lake, CA	50.359	9 4.1	16 11/00	4.521	11/01		Continuing	Continuino	1
Miscellaneous	Various	NAWC-WD, China Lake, CA	20.898			2.527			Continuing	,	1
Subtotal Product Development			78.98	5 13.3	10	16.406			Continuing	g Continuing	9
Remarks:											

CLASSIFICATION:

									DATE:				
Exhibit R-3 Cost A	nalysis (page 2)									June 200)1		
APPROPRIATION/BUI			PROGRAM EI					UMBER AND I	NAME				
RDT&E, N /	BA-6	T	PE 0604256N		ulator Develo		E0602, ECH0			1	1		
Cost Categories	Contrac Method & Type	Activity &		Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date		Cost to Complete	Total Cost	Target of Cont	Value ract
Subtotal T&E													
Remarks: Not Applic	able												
Travel	WX	NADEP, Jax,	FL .	0.0	69 (0.015 10/00	0.01	5 10/01		Continui	ing	Continuing	
SBIR Assessment					(0.087							
Subtotal Management				0.0	69 (0.102	0.01	5		Continui	ing	Continuing	
Remarks:													
Total Cost				79.0	54 13	3.412	16.42	1		Continui	ing	Continuing	
Remarks: There are	no support costs.					ST - Itom No	151						

CLASSIFICATION:

	EXHIBIT R-2a,	RDT&E Pro	ject Justifica	ation				DATE:			
									Ju	ne 2001	
APPROPRIATION/BUDGET ACTIVITY		PROGRAM EI	LEMENT NUM	BER AND NAN	ΛE	PROJECT NU	JMBER AND N	AME			
RDT&E, N / BA-6	0604256N, Th	reat Simulator	Development			R0672, Effect	iveness of Nav	y Electronic Wa	arfare Systems	s (ENEWS)	
	Prior										Total
COST (\$ in Millions)	Year Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Program
Project Cost		13.013	*10.638	13.689						Continuing	Continuing
RDT&E Articles Qty											

^{*}Controls reduced by 1.884 (Issue 68268 NMCI). Funding will be reprogrammed out

(U) A. 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 simulated real-world engagement situations. The Project primarily supports the introduction of modern, effective shipboard and offboard EW systems, and tactics for the Surface Navy. The heavy use of ENEWS resources by NAVSEA, OPTEVFOR, Special Operations and other EW RDT&E agencies speaks to the overall importance of this Project. The Project provides support for EW system Design Enginering Test (ET), Development Test (DT), Operational Test (OT), and the development of utilization tactics. Its quick reaction capabilities have had great impact on situations such as the Lebanon, Libyan and Persian Gulf crisis, the Iran Harpoon threat and Operation Desert Storm/Shield. The primary threat to surface ships is Anti-Ship Capable Missile (ASCM) systems. The ENEWS Project is unique in that it is the only project within the Department of Defense (DOD) dedicated to developing and providing realistic ASCM assets to test and evaluate the effectiveness of shipboard EW systems and tactics against these type threats. The ENEWS Project is a critical part of the 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. DT, OT and FOT support includes SLQ-32 updates as required, R17.OX (NULKA), the phase-in of AIEWS beginning 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, DD-21 and PC class ships, AIEWS phase two, High Power Microwave (HPM) Program, and other Ship Self-Defense initiatives, including test

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$.572) Continued COMSIM System Readiness
- (U) (\$.425) Continued COMSIM Scenario Implementation, Environment Generator & System Engineering
- (U) (\$.175) Continued COMSIM Validation (Completed 1 Validation Process Report)
- (U) (\$.165) Continued COMSIM Instrumentaion , Data Analysis and ASM Distributed Simulation Capability Improvements
- (U) (\$.220) Continued COMSIM Threat Database Repository Updates
- (U) (\$.442) Continued COMSIM Anti Ship Missile Updates (4 Systems)
- (U) (\$.493) Continued COMSIM Development of Anti Ship Missile Engagement Simulation (Completed INDIA)
- (U) (\$2.843) Continued RFSIM Simulator Readiness
- (U) (\$1.300) Continued RFSIM Multi-Threat Processor Upgrade. (Completed J-Band)
- (U) (\$.250) Continued RFSIM OEM Simulator Upgrades. (Completed OSCAR)
- (U) (\$.300) Completed RFSIM Validation (Completed 2 Validation Reports)
- (U) (\$.381) Continue RFSIM Dual RF/ARM Seeker Simulator.

CLASSIFICATION: UNCLASSIFIED

UNCLASSIFIED

	E	XHIBIT R-2a, RDT&E Project Justification		DATE:
				June 2001
APPROPRIATION/B	UDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND	NAME
RDT&E, N /	BA-6	0604256N, Threat Simulator Development	R0672, Effectiveness of Na	avy Electronic Warfare Systems (ENEWS)
	(U) PROGRAM ACCOM	PLISHMENTS AND PLANS:		
	1. FY 2000	ACCOMPLISHMENTS CONTINUED:		
	. (U - (U - (U - (U - (U - (U - (U - (U -	(\$.375) Initiated RFSIM CTS 3 Axis Flight Simulator. (\$.100) Continued RFSIM Analytical and Reporting (\$.633) Continued RFSIM CTS Target Fidelity Deve (\$.633) Continued IRSIM Readiness (\$.229) Continued IRSIM FOXTROT Simulator Upgrade (\$.191) Continued IRSIM VICTOR Simulator Upgrade (\$.150) Initiated IRSIM VICTOR Simulator Upgrade (\$.054) Continued IRSIM Validation (Completed 1 Victorial Continued IRSIM MEIR II System Developm (\$.120) Continued IRSIM MEIR II System Developm (\$.162) Continued IRSIM FOXTROT I and VICTOR II Simulated IRSIM Littoral Warfare Sim 1 Hardw (\$.145) Continued IRSIM Littoral Warfare Sim 1 Hardw (\$.145) Continued IRSIM Lab/Field Systems Continued ENEWS Plans & Programs.	Software (Complete India Tools). Iopment (Calibrated FA). rades (SIM 1 and B1). Ide (SIM B and SIM3a) and System Eng (SIM 4) Validation Report) Ident. (01) Flight Capability (04) INT II Simulator Development. Simulator Development.	J.
	2. FY 2001	PLANS:		
	· (U · (U · (U · (U · (U · (U · (U · (U	(\$.640) Continue COMSIM System Readiness (\$.272) Continue COMSIM Scenario Implementation (\$.070) Continue COMSIM Validation (Complete 1 Volume COMSIM Threat Database Reposit (\$.121) Continue RFSIM Simulator Readiness. (\$.990) Continue RFSIM Multi-Threat Processor Upg (\$.260) Continue RFSIM Validation (Complete 2 Val.) (\$.050) Complete RFSIM Dual RF/ARM Seeker Simulator Complete RFSIM Analytical and Reporting S. (\$.065) Continue RFSIM Analytical and Reporting S. (\$.092) Complete IRSIM VICTOR Simulator Upgrades (\$.092) Continue IRSIM Validation (Complete 1 Validation) (\$.328) Continue ENEWS Plans & Programs. Inititate Classified Program (\$.070) Portion of extramural program reserved for Sr	/alidation Report) ory Updates grade. (I-Band) idation Reports) ulator oftware (Complete November Tools). es (SIM B and SIM3a) and System Eng dation Report).	

CLASSIFICATION: UNCLASSIFIED

	EX	KHIBIT R-2a, RDT&E Project Justification	DATE:
			June 2001
	UDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
DT&E, N /	BA-6	06042556N, Threat Simulator Development	R0672, Effectiveness of Navy Electronic Warfare Systems (ENEWS)
	,	MPLISHMENTS AND PLANS:	
	3. FY 2002 F	PLANS:	
	. (U . (U . (U . (U . (U . (U . (U . (U	(\$.640) Continue COMSIM System Readiness (\$.552) Continue COMSIM Scenario Implementation, Env (\$.105) Continue COMSIM Validation (Complete 1 Validati (\$.120) Continue COMSIM Threat Database Repository U (\$2.039) Continue RFSIM Simulator Readiness. (\$.900) Continue RFSIM Multi-Threat Processor Upgrade. (\$.300) Continue RFSIM Validation (Complete 2 Validatio (\$.120) Continue RFSIM Analytical and Reporting Softwal (\$.500) Initiate RFSIM New Flyable Simulator Developmer (\$.170) Initiate RFSIM Laboratory Upgrades (\$.129) Continue IRSIM Readiness (\$.195) Initiate/Complete IRSIM VICTOR Simulator Upgrad (\$.059) Continue IRSIM Validation (Complete 1 Validation (\$.590) Continue ENEWS Plans & Programs. (\$6.100) Continue Classified Program	on Report) odates (I-Band) n Reports) se sit

CLASSIFICATION: UNCLASSIFIED

EX	HIBIT R-2a, RDT&E F	⊃roject Justi	fication		DATE:
					June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELE	MENT NUMBI	ER AND NAME	PROJECT NUMBER AND N	NAME
RDT&E, N / BA-6	0604256N, Threa	at Simulator D	evelopment	R0672, Effectiveness of Nav	vy Electronic Warfare Systems (ENEWS)
(U) B. PROGRAM CHANGE SUMMARY:					
(0)					
	FY2000	FY2001	FY2002		
(U) FY 2001 President's Budget:	13.394	10.736	13.458		
(U) Adjustments from the President's Budget:	-0.381	-1.786	0.231		
(U) FY 2002 PresBudg Submission:	13.013	12.522	13.689		
-					

CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 2000 net decrease of \$.381 million consists of -.\$063 million for SBIR reduction, -\$.053 million for proprtionate reduction, and -\$252 million for BTRs

The FY 2001 net decrease of \$.098 million consists of -\$.075 million pro-rata share and -\$.023 million governmentwide recission and -\$1.884 million reprogrammed for higher priority

programs

The FY 2002 net adjustments of \$.231 million consists of , +\$297 million for NWCF rate adjustment, and -\$.053 million for NWCF

*See Technical discussion below for other funding impact.

- (U) Schedule: Not Applicable
- (U) Technical: Starting in FY01 the Project will be reduced by approximately50% with funding being applied to a separate classified program. Future Project plans to accomplish stated technical objectives for threat simulator development are being re-baselined and re-prioritized to accommodate this change.
- (U) C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable
- (U) D. ACQUISITION STRATEGY: Not Required
- (U) E. SCHEDULE PROFILE: Not Required

CLASSIFICATION:

									DATE:					
Exhibit R-3 Cost Analysis (page 1)								June 2001						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME							
	3A-6		0604256N, Threat Simulator Development				R0672, Effectiveness of Navy Electronic Warfare Systems (ENEWS)							
Cost Categories (Tailor to WBS, or System	Contra Item Metho	ct Performing d Activity &		Total PY s	FY 01	FY 01 Award	FY 02	FY 02 Award	FY 03	FY 03 Award	Cost to	Total	Target Value	
Requirements)	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract	
HDW/SW Dev, Sys Eng/In		NRL, Wash		160.741		.452 10/00	13.689		14.192		Continui			
SBIR ASSESSMENT					0.	.070						0.070)	
Subtotal Product Developme	ent			160.741	12	2.522	13.689		14.192	2	Continu	ing Continuing	3	
Remarks:														
Remarks.														