

DEPARTMENT OF THE NAVY
FY 1997 BUDGET ESTIMATES

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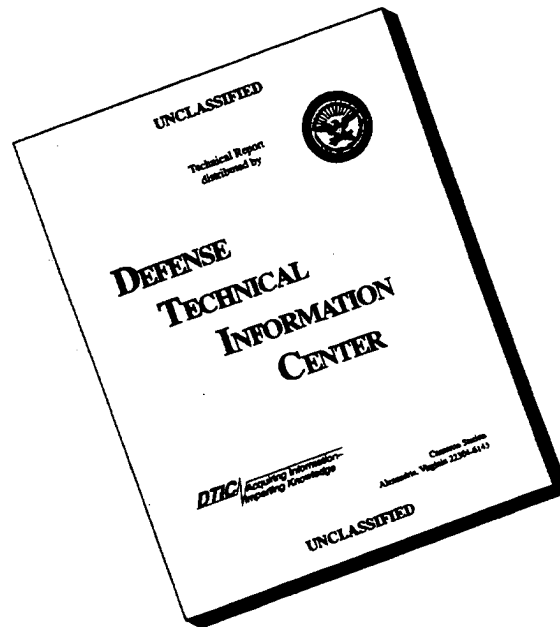
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JUSTIFICATION OF ESTIMATES
MARCH 1996

RESEARCH, DEVELOPMENT, TEST & EVALUATION
BUDGET ACTIVITY 6: RDT&E MANAGEMENT
SUPPORT

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Department of Navy

FY 1997 R D T E Program

Exhibit R-1

APPROPRIATION: 1319n Research, Development, Test, and Evaluation, Navy DATE: 04/05/96

LINE NO	PROGRAM ELEMENT NUMBER	ITEM NOMENCLATURE	BA	Thousands of Dollars				S
				FY 1995	FY 1996	FY 1997	E	
127	0604256N	Threat Simulator Development	06	31,611	28,991	23,536	U	
128	0604258N	Target Systems Development	06	26,636	23,582	31,120	U	
129	0604759N	Major T & E Investment	06	55,809	49,027	40,612	U	
130	0605152N	Studies & Analysis Support/Navy	06	6,668	6,778	7,174	U	
131	0605154N	Center for Naval Analyses	06	43,348	43,062	42,251	U	
132	0605155N	Fleet Tactical Development	06	4,332	2,522	2,998	U	
133	0605502N	Small Business Innovative Research	06	112,753	-	-	U	
134	0605804N	Technical Information Services	06	4,955	1,965	1,725	U	
135	0605853N	Management, Technical, & International Spt	06	9,366	17,978	20,905	U	
136	0605856N	Strategic Tech Support	06	2,213	2,903	2,059	U	
137	0605861N	RDT&EN Science & Technology Management	06	61,975	59,134	58,348	U	
138	0605862N	RDT&EN Instrumentation Modernization	06	12,551	11,516	6,196	U	
139	0605863N	RDT&E, N Ship & Aircraft Support	06	80,524	59,915	50,348	U	
140	0605864N	Test and Evaluation Support	06	285,756	236,390	242,891	U	
141	0605865N	Operational T&E Capability	06	8,147	6,040	5,999	U	
142	0605866N	Navy SEW Support	06	4,245	3,028	2,868	U	
143	0605867N	SEW Surveillance/Recon. Support	06	11,541	11,727	11,986	U	
144	0605871M	MC Tac Exploit of Natl Capab	06	925	2,891	-	U	
145	0605873M	Marine Corps Program Wide Support	06	7,303	5,932	7,424	U	
146	0909999N	Cancelled Account Adjustments	06	5,698	-	-	U	
TOTAL	RDTE Management Support			776,356	573,381	558,440		

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Exhibit R-1

Department of the Navy
Research, Development, Test, and Evaluation, Navy

March 1996

APPROPRIATION: 1319n

--- Alphabetic Listing ---

In Thousands of Dollars

P-1 NUMBER	PROGRAM ELEMENT	PROGRAM NAME	BA	FY 1995	FY 1996	FY 1997	C
146	909999	Cancelled Account Adjustments	6	5,698			U
131	605154	Center for Naval Analyses	6	43,348	43,062	42,251	U
132	605155	Fleet Tactical Development	6	4,332	2,522	2,998	U
129	604759	Major T & E Investment	6	55,809	49,027	40,612	U
135	605853	Management, Technical, & International Spt	6	9,366	17,978	20,905	U
145	605873	Marine Corps Program Wide Support	6	7,303	5,932	7,424	U
144	605871	Marine Corps Tactical Exploit of National Capabilities	6	925	2,891		U
142	605866	Navy SEW Support	6	4,245	3,028	2,868	U
141	605865	Operational T&E Capability	6	8,147	6,040	5,999	U
138	605862	RD&EN Instrumentation Modernization	6	12,551	11,516	6,196	U
137	605861	RD&EN Science & Technology Management	6	61,975	59,134	58,348	U
139	605863	RD&EN Ship & Aircraft Support	6	80,524	59,915	50,348	U
143	605867	SEW Surveillance/Reconnaissance Support	6	11,541	11,727	11,986	U
133	605502	Small Business Innovative Research	6	112,753			U
136	605856	Strategic Tech Support	6	2,213	2,903	2,059	U
130	605152	Studies & Analysis Support/Navy	6	6,668	6,778	7,174	U
128	604256	Target Systems Development	6	28,636	23,582	31,120	U
134	605804	Technical Information Services	6	4,955	1,965	1,725	U
140	605864	Test and Evaluation Support	6	285,756	236,390	242,891	U
127	604256	Threat Simulator Development	6	31,611	28,991	23,536	U

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Exhibit R-1

APPROPRIATION: 1319n

Department of the Navy

Research, Development, Test, and Evaluation, Navy

March 1996

--- Alphabetic Listing ---

P-1 NUMBER	PROGRAM ELEMENT	PROGRAM NAME	In Thousands of Dollars				C
			BA	FY 1995	FY 1996	FY 1997	

* = These programs contained classified materials and are printed in a separate justification back up book.

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Program and Financing (in Thousands of dollars)

00 MAR 96

RDT&E, Navy

		Budget Plan (amounts for RESEARCH, DEV, TEST & EVAL actions programmed)				Obligations	
Identification code	17-1319-0-1-051	1995 actual	1996 est.	1997 est.	1995 actual	1996 est.	1997 est.
Program by activities:							
Direct program:							
00.0101	Basic research	408,284	378,929	387,213	406,660	375,172	387,416
00.0201	Applied Research	501,603	543,779	463,465	473,049	570,544	467,424
00.0301	Advanced technology development	481,104	482,865	449,342	461,935	554,524	467,017
00.0401	Demonstration/validation	1,582,957	1,727,209	1,740,955	1,616,137	1,616,331	1,711,012
00.0501	Engineering and manufacturing development	2,213,031	2,405,727	2,048,657	2,270,420	2,425,974	2,091,636
00.0601	Management support	776,356	575,396	558,440	794,005	620,237	560,953
00.0701	Operational system development	2,642,982	2,380,629	1,686,662	2,717,856	2,383,169	1,718,864
00.9101	Total direct program	8,606,317	8,494,534	7,334,734	8,781,062	8,545,951	7,404,322
01.0101	Reimbursable program	111,669	110,000	110,000	122,142	113,659	110,000
10.0001	Total	8,717,986	8,604,534	7,444,734	8,903,204	8,659,610	7,514,322
Financing:							
Offsetting collections from:							
11.0001	Federal funds(-)	-109,801	-110,000	-110,000	-113,237	-110,000	-110,000
13.0001	Trust funds(-)	-128			-133		
14.0001	Non-Federal sources(-)	-1,740			-1,876		
17.0001	Recovery of prior year obligations				-3,023		
21.4002	Unobligated balance available, start of year:						
21.4003	For completion of prior year budget plans				-758,455	-568,848	-516,272
21.4004	Available to finance new budget plans	-60,902	-11,600		-60,902	-11,600	
21.4009	Reprogramming from/to prior year budget plan	-10,989	2,500				
22.0001	Unobligated balance transferred to other acco	18,202	-2,500		18,202	-2,500	
24.4002	Unobligated balance available, end of year:						
24.4003	For completion of prior year budget plans	11,600			568,848	516,272	446,684
25.0001	Available to finance subsequent year budget	9,489			11,600		
	Unobligated balance expiring				9,489		
39.0001	Budget authority	8,573,717	8,482,934	7,334,734	8,573,717	8,482,934	7,334,734
Budget authority:							
40.0001	Appropriation	8,627,917	8,573,073	7,334,734	8,627,917	8,573,073	7,334,734
40.3601	Appropriation rescinded (unob bal)		-6,000			-6,000	
41.0001	Transferred to other accounts (-)	-54,200	-84,139		-54,200	-84,139	
43.0001	Appropriation (adjusted)	8,573,717	8,482,934	7,334,734	8,573,717	8,482,934	7,334,734

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RDTE, Navy
Program and Financing (in Thousands of dollars)

Identification code	17-1319-0-1-051	Budget Plan (amounts for RESEARCH, DEV, TEST & EVAL actions programmed)			
		1995 actual	1996 est.	1997 est.	1998 est.
Relation of obligations to outlays:					
71.0001	Obligations incurred	8,787,958	8,549,610	7,404,322	
72.1001	Orders on hand, SOY	-169,682	-142,908		
72.4001	Obligated balance, start of year	5,751,294	5,155,440	5,165,061	
74.1001	Orders on hand, EOY	142,908			
74.4001	Obligated balance, end of year	-5,155,440	-5,165,061	-4,805,235	
77.0001	Adjustments in expired accounts (net)	-124,371			
78.0001	Adjustments in unexpired accounts	-3,023			
90.0001	Outlays (net)	9,229,644	8,397,081	7,764,148	

RDTE, Navy
Object Classification (in Thousands of dollars)

00 MAR 96

Identification code	17-1319-0-1-051	1995 actual	1996 est.	1997 est.
Direct obligations:				
Personnel compensation:				
111.101	Full-time permanent	44,885	45,286	44,835
111.301	Other than full-time permanent	3,717	3,418	3,489
111.501	Other personnel compensation	1,646	1,574	1,558
111.901	Total personnel compensation	50,248	50,278	49,882
112.101	Personnel Benefits: Civilian personnel	9,205	10,176	10,146
113.001	Benefits for former personnel	698	150	150
121.001	Travel and transportation of persons	20,463	21,567	21,938
122.001	Transportation of things	2,136	2,131	2,097
123.301	Communications, utilities, and miscellaneous charges	8,619	8,878	9,144
124.001	Printing and reproduction	724	746	768
125.101	Advisory and assistance services	247,371	276,867	263,316
125.201	Other services with the private sector	5,490,346	5,440,405	4,358,087
125.301	Purchases goods/services (inter/intra) Fed accounts	252,858	236,570	236,565
125.302	Purchase of goods/services from other Fed agencies	42	20	
125.303	Payments to foreign national indirect hire personnel	2,409,912	2,210,890	2,174,269
126.001	Purchases from revolving funds	17,665	18,194	18,740
126.001	Supplies and materials	15,794	16,268	16,756
131.001	Equipment	2,905	2,900	2,900
132.001	Land and structures	252,076	249,911	249,564
141.001	Grants, subsidies, and contributions			
199.001	Total Direct obligations	8,781,062	8,545,951	7,404,322
Reimbursable obligations:				
Personnel Compensation:				
211.101	Full-time permanent	32,453	33,454	41,583
211.301	Other than full-time permanent	2,738	868	2,698
211.501	Other personnel compensation	676	673	775
211.901	Total personnel compensation	35,867	34,995	45,056
212.101	Personnel Benefits: Civilian Personnel	6,835	7,138	8,624
221.001	Travel and transportation of persons	2,487	2,750	2,475
222.001	Transportation of things	101	100	100
223.301	Communications, utilities, and miscellaneous charges	1,637	1,635	1,630
224.001	Printing and reproduction	155	150	148
225.201	Other services with the private sector	37,959	26,766	15,882
225.303	Purchases goods/services (inter/intra) Fed accounts			
226.001	Purchases from revolving funds	13,900	17,125	13,090
231.001	Supplies and materials	13,109	13,000	12,990
231.001	Equipment	8,592	8,490	8,480

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RD&E, Navy
Object Classification (in Thousands of dollars)

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Identification code	17-1319-0-1-051	1995 actual	1996 est.	1997 est.
241.001	Grants, subsidies, and contributions	1,500	1,510	1,525
299.001	Total Reimbursable obligations	122,142	113,659	110,000
999.901	Total obligations	8,903,204	8,659,610	7,514,322

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RD&E, NAVY
(Rescission Proposal)
Program and Financing (in Thousands of dollars) SUPPLEMENTAL

Identification code	17-1319-5-1-051	Budget Plan (amounts for RESEARCH, DEV, TEST & EVAL actions programmed)			Obligations	
		1995 actual	1996 est.	1997 est.	1995 actual	1996 est.
Program by activities:						
Direct program:						
00.0101	Basic research	-1,917	-1,801	-116		
00.0201	Applied Research	-2,407	-2,262	-145		
00.0301	Advanced technology development	-38,135	-35,214	-2,921		
00.0401	Demonstration/validation	-10,597	-10,597			
00.0501	Engineering and manufacturing development	-9,912	-9,317	-595		
00.0601	Management support	-2,015	-1,894	-121		
00.0701	Operational system development	-9,817	-9,227	-590		
10.0001	Total	-74,800	-70,312	-4,488		
Financing:						
21.4002	Unobligated balance available, start of year:					4,488
	For completion of prior year budget plans					
24.4002	Unobligated balance available, end of year:					
	For completion of prior year budget plans					
40.3501	Budget authority (Appropriation rescinded) (	-74,800	-74,800			
Relation of obligations to outlays:						
71.0001	Obligations incurred					
72.4001	Obligated balance, start of year		-70,312	-4,488		
74.4001	Obligated balance, end of year		28,499	-28,499		9,425
90.0001	Outlays (net)		-41,813	-23,562		

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RD&E, Navy
(Rescission Proposal)
Object Classification (in Thousands of dollars) SUPPLEMENTAL

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Identification code	17-1319-5-1-051	1995 actual	1996 est.	1997 est.
Direct obligations:				
125.201	Other services with the private sector		-70,312	-4,488
199.001	Total Direct obligations		-70,312	-4,488
999.901	Total obligations		-70,312	-4,488

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROGRAM ELEMENT TITLE: Threat Simulator Development

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL
E0602 Electronic Warfare Environment Simulation (ECHO)	19,394	18,772	13,102	16,146	18,269	18,707	18,979	CONT.	CONT.
E0672 Effectiveness of Navy Electronic Warfare Systems (ENEWS)	12,217	10,219	10,434	11,356	13,293	13,602	12,974	CONT.	CONT.
TOTAL	31,611	28,991	23,536	27,502	31,562	32,309	31,953	CONT.	CONT.

(U) 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 (NAVAIRWARCENWPNDIV), 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 (NAVAIRWARCENACDIV), 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 Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), China Lake, CA.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROGRAM ELEMENT TITLE: Threat Simulator Development

(U) The E0672 Project, Effectiveness of Navy EW Systems (ENEWS), is a Department of the Navy (DON) unique project that supports testing of Ship Self Defense efforts. ENEWS provides T&E of 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 component 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 EP-3B aircraft to provide at-sea open air T&E of systems and tactics. All ENEWS assets are developed 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, T&E, and development use.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

(U) COST (Dollars in thousands) PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM
E0602 Electronic Warfare Environment Simulation (ECHO)	19,394	18,772	13,102	16,146	18,269	18,707	18,979	CONT.
								CONT.

A. (U) 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 for the following programs such as the High Speed Anti-Radiation Missile, ALR-67(V)2,3,4, ALQ-126B, AN/ALQ-156, Advanced Airborne Expendable Decoy (AAED), EW Advanced Technology (EWAT), AVR-2, AAR-47, as well as other Tri-Service EW systems with initial operational capability dates in the 1990'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: NAVAIRWARCENWPNDIV, China Lake and Point Mugu in CA, and NAVAIRWARCENACDIV, Patuxent River, MD.

(U) Navy Air Defense Threat Simulator resource requirements are coordinated through the OSD CROSSBOW committee to avoid unwarranted duplication of effort among the services. The Navy Tri-Center approach to T&E resource development ensures project efficiency by cost reductions achievable through common development efforts which provide consistent, repeatable test results between test centers.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N PROJECT NUMBER: E0602
PROGRAM ELEMENT TITLE: Threat Simulator Development PROJECT TITLE: ECHO

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$4,910) Continued Weapons Systems - J-Band Advanced Technology Simulator (JBATS).
- (U) (\$750) Initiated/Completed Weapons Systems - Advanced H2 (Foreign Material Acquisition Opportunity (FMAO)).
- (U) (\$500) Initiated Command and Control Systems - Command and Control Group 2 (C2 Group 2).
- (U) (\$800) Completed Command and Control Systems - Communications Environment Simulation (CES).
- (U) (\$4,292) Continued Multispectral Systems - Multispectral Anti-Air Test System (MATS).
- (U) (\$100) Continued Validation and Updates - Simulator Evaluation (SIMEVAL).
- (U) (\$450) Continued Validation and Updates - Radar Updates.
- (U) (\$425) Continued Validation and Updates - Missile/Gun Updates.
- (U) (\$350) Continued Validation and Updates - Validation.
- (U) (\$1,371) Continued ECHO technical and engineering support.
- (U) (\$642) Continued ECHO System Engineering activity.
- (U) (\$665) Continued ECHO Test Requirements activity.
- (U) (\$4,139) Maintained the current EW threat simulator inventory of electronic equipment and instrumentation.

2. (U) FY 1996 PLAN:

- (U) (\$6,202) Continue Weapons Systems - JBATS.
- (U) (\$208) Complete Command and Control Systems - C2 Group 2.
- (U) (\$4,558) Complete Multispectral Systems - MATS.
- (U) (\$100) Continue Validation and Updates - SIMEVAL.
- (U) (\$638) Continue Validation and Updates - Radar Updates.
- (U) (\$450) Continue Validation and Updates - Missile/Gun Updates.
- (U) (\$350) Continue Validation and Updates - Validation.
- (U) (\$1,022) Continue ECHO technical and engineering support.
- (U) (\$275) Continue ECHO System Engineering activity.
- (U) (\$665) Continue ECHO Test Requirements activity.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

- (U) (\$305) Portion of Program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.
- (U) (\$3,999) Continue to maintain the EW threat simulator inventory of electronic equipment and instrumentation.

3. (U) FY 1997 PLAN:

- (U) (\$1,250) Initiate Ground Mounted Seeker.
- (U) (\$250) Continue Validation and Updates - SIMEVAL.
- (U) (\$2,294) Continue Validation and Updates - Radar Updates.
- (U) (\$750) Continue Validation and Updates - Missile/Gun Updates.
- (U) (\$500) Continue Validation and Updates - Validation.
- (U) (\$1,239) Continue ECHO technical and engineering support.
- (U) (\$600) Continue ECHO System Engineering activity.
- (U) (\$665) Continue ECHO Test Requirements activity.
- (U) (\$5,554) Continue Weapon Systems - JBATS.

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996/1997 President's Budget:	15,333	15,369	15,902
(U) Adjustments from PRESBUDG:	+4,061	+3,403	-2,800
(U) FY 1997 President's Budget Submit:	19,394	18,772	13,102

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1995 net increase of +\$4.061 million reflects -\$0.078 million for a program adjustment and +4.139 million for MRTFB requirements. The FY 1996 net increase of +\$3.403 million consists of +3.999 million for MRTFB requirements and Congressional undistributed general and inflation reductions of -\$0.368 million; and revised DoD inflation rates and other minor pricing adjustments of -\$0.228 million. The FY 97 decrease of -\$2.800 million consists of -\$2.004 million for change in Defense Business Operating Fund (DBOF) rates; and -\$0.796 million for reduced inflation estimates and other minor program adjustments.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

(U) Schedule: Initiation of the Command and Control Systems - C3 Battle Management, Low Probability of Intercept (LPI) Radar, and Multispectral Systems - Millimeter Wave (MMW) projects have been delayed one year from FY 1997 to FY 1998.

(U) Technical: Not Applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6
PROGRAM ELEMENT: 0604256N
PROJECT NUMBER: E0602
PROJECT TITLE: ECHO

PROGRAM ELEMENT TITLE: Threat Simulator Development

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. Hardware Development	8,028	8,581	6,348
b. Software Development	3,990	3,338	2,343
c. System Engineering	615	600	600
d. System Integration	575	400	1,400
e. Validation	450	450	750
f. Configuration Management	150	150	150
g. Program Management Support	908	427	911
h. Miscellaneous (Requirements)	539	522	600
i. Maintenance and Operations	4,139	3,999	0
j. SBIR Assessment		305	
Total	19,394	18,772	13,102

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N PROJECT NUMBER: E0602
 PROGRAM ELEMENT TITLE: Threat Simulator Development PROJECT TITLE: ECHO

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Product Development										
MM/NAVSUP	SS-CPFF-PD	10/89	39,655	39,655	39,655	0	0	0	0	39,655
&EWA/NAVSUP	C-CPFF-PD	10/94	11,552	800	3,046	3,440	3,266	1,000	11,552	11,552
WHITT/CL	SS-CPFF-PX	5/87	35,977	35,977	0	0	0	0	0	35,977
VIASAT/NSUP	SS-CPFF-PD	4/93	4,903	4,665	238	0	0	0	0	4,903
ASDI/CL	SS-FFP-PX	5/91	1,561	1,561	0	0	0	0	0	1,561
NAWC-WD/CL	WX	10/96	9,016	9,149	8,478	7,910	875	CONT.	CONT.	1,561
NAWC-WD/PTM	PX	10/96	1,725	1,114	1,200	875	875	CONT.	CONT.	1,561
NAWC-AD/PAX	WX	10/96	1,366	968	1,000	801	801	CONT.	CONT.	1,561
NAWC-AD/I	WX	10/94	1,080	115	100	0	0	0	0	1,295
NAWC-WD/PMTC	WX	10/96	0	4,139	3,999	0	0	CONT.	CONT.	375
MISCELLANEOUS (EFFORTS < \$1M EACH)										
Support and Management										
MISCELLANEOUS (EFFORTS < \$1M EACH)										
					369	250	250	250	CONT.	CONT.

Test and Evaluation: Not Applicable.

GOVERNMENT FURNISHED PROPERTY: Not Applicable.

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DATE: March 1996

FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N PROJECT NUMBER: E0602
 PROGRAM ELEMENT TITLE: Threat Simulator Development PROJECT TITLE: ECHO

	Total FY 1994 & Prior	FY.1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	95,845	19,144	18,217	12,852	CONT.	CONT.
Subtotal Support and Management	369	250	250	250	CONT.	CONT.
Subtotal Test and Evaluation	0	0	0	0	0	0
SBIR Assessment			305			
Total Project	96,214	19,394	18,772	13,102	CONT.	CONT.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N PROJECT NUMBER: E0672
PROGRAM ELEMENT TITLE: Threat Simulator Development PROJECT TITLE: ENEWS

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL CONT.
E0672 Effectiveness of Navy Electronic Warfare Systems (ENEWS)	12,217	10,219	10,434	11,356	13,293	13,602	12,974	CONT.	CONT.

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 in real-world engagement situations and primarily supports the introduction of modern, effective shipboard EW systems, and tactics for the surface Navy. The heavy use of ENEWS resources by NAVSEA and other developers speaks to the overall importance of these assets. The project provides support for EW system design, 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 Falklands conflict, the Iran Harpoon threat, the Persian Gulf crisis, and Operation Desert Shield/Storm.

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

(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 EW systems and tactics. As part of its continuing activities, ENEWS has provided T&E/DT&E/OT&E support to Combat Systems At Sea Qualification Testing (CSSQT) for CG-47, DDG-51 and CV/CVN class ships as well as SLQ-32 PHASE improvements. DT and OT support will be provided for the SLQ-32 PHASE improvements, SLQ-32 (V)1-5, Rapid Anti-ship Integrated Defense System (RAIDS), OUTLAW BANDIT systems, Multiband Anti-ship Cruise Missile Defense Tactical EW System (MATES), and other Ship Self-Defense initiatives including RDT&E 6.3A Advanced Technology Demonstrations.

(U) Computer simulation and modeling, hardware in the loop (HRTL) test facilities, and ASM simulators flown on a specially configured EP-3B aircraft are the major program assets. Resources are used in combination to measure EW system effectiveness in a cost efficient manner.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT NUMBER: E0672

PROJECT TITLE: ENEWS

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$950) Continued Computer Simulation (COMSIM) System Readiness.
- (U) (\$550) Continued COMSIM Intelligence Upgrades.
- (U) (\$1,285) Continued COMSIM New Developments.
- (U) (\$3,589) Continued Radio Frequency Simulation (RFSIM) Simulator Readiness.
- (U) (\$1,769) Continued RFSIM Intelligence Upgrades.
- (U) (\$1,054) Continued RFSIM New Developments.
- (U) (\$1,536) Continued Infrared Simulation (IRSIM) Flyable Simulators Readiness.
- (U) (\$800) Continued IRSIM Intelligence Upgrades.
- (U) (\$684) Continued IRSIM New Developments.

2. (U) FY 1996 PLAN:

- (U) (\$750) Continue COMSIM System Readiness.
- (U) (\$600) Continue COMSIM Intelligence Upgrades.
- (U) (\$938) Continue COMSIM New Developments.
- (U) (\$3,212) Continue RFSIM Simulator Readiness.
- (U) (\$1,403) Continue RFSIM Intelligence Upgrades.
- (U) (\$743) Continue RFSIM New Developments.
- (U) (\$1,193) Continue IRSIM Readiness.
- (U) (\$480) Continue IRSIM Intelligence Upgrades.
- (U) (\$696) Continue IRSIM New Development.
- (U) (\$204) Portion of Program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N PROJECT NUMBER: E0672
 PROGRAM ELEMENT TITLE: Threat Simulator Development PROJECT TITLE: ENEWS

3. (U) FY 1997 PLAN:

- (U) (\$841) Continue COMSIN System Readiness.
- (U) (\$600) Continue COMSIN Intelligence Upgrades
- (U) (\$888) Continue COMSIN New Developments.
- (U) (\$3,044) Continue RFSIM Simulator Readiness.
- (U) (\$1,258) Continue RFSIM Intelligence Upgrades.
- (U) (\$1,212) Continue RFSIM New Developments.
- (U) (\$1,402) Continue IRSIM Readiness.
- (U) (\$741) Continue IRSIM Intelligence Upgrades.
- (U) (\$448) Continue IRSIM New Developments.

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996/1997 President's Budget:	12,279	10,542	11,135
(U) Adjustments from PRESBUDG:	-62	-323	-701
(U) FY 1997 President's Budget Submit:	12,217	10,219	10,434

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1995 decrease of -\$0.062 million reflects a program adjustment. The FY 1996 decrease of -.323 million reflects Congressional undistributed general and inflation reductions of -\$200 million; and revised DoD inflation rates and other minor pricing adjustments of -\$123 million. The FY 97 decrease -\$260 million for a reduction for Defense Business Operating Fund (DBOF) rates; and -\$441 reduced inflation estimates and other minor program adjustments.

(U) Schedule: IOC dates will slip for the following new simulator developments: CHIR SIM 3 from FY99 to FY00; Ground Truth Reference System from FY98 to FY99; and New ALQ-170 Processor from FY98 to FY99. The COMSIN Force on Force new development efforts will be delayed indefinitely.

(U) Technical: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT NUMBER: E0672

PROJECT TITLE: ENEWS

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N PROJECT NUMBER: E0672
 PROGRAM ELEMENT TITLE: Threat Simulator Development PROJECT TITLE: ENEWS

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
a. Program Management Support	128	130	130
b. Research Personnel	7,594	6,635	6,970
c. Travel	224	223	230
d. Training	101	109	121
e. Developmental Support Equipment Acquisition	3,266	2,173	2,284
f. Miscellaneous	904	745	699
g. SBIR Assessment		204	
Total	12,217	10,219	10,434

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DATE: March 1996

FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

PROJECT NUMBER: E0672
PROJECT TITLE: ENEWS

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

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Product Development										
NRL	WX	10/96			97,352	11,714	9,927	10,304	CONT.	CONT.
MISCELLANEOUS (EFFORTS < \$1M EACH)			375	375	0	375	0	0	0	375
Support and Management										
MISCELLANEOUS (EFFORTS < \$1M EACH)					65	128	88	130	CONT.	CONT.

Test and Evaluation: Not Applicable.

GOVERNMENT FURNISHED PROPERTY: Not Applicable.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0672

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ENNS

	Total FY 1994 & Prior	FY, 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	97,352	12,089	9,927	10,304	CONT.	CONT.
Subtotal Support and Management	65	128	88	130	CONT.	CONT.
Subtotal Test and Evaluation	0	0	0	0	0	0
SBIR Assessment			204			
Total Project	97,417	12,217	10,219	10,434	CONT.	CONT.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROGRAM ELEMENT TITLE: Target Systems Development

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM
A0609 Aerial Target Systems Development	12,818	9,370	8,914	20,463	24,823	25,304	26,588	CONT. CONT.
A0610 Weapon Systems T&E Development/Procurement	12,990	13,599	19,472	6,863	6,973	6,906	6,157	CONT. CONT.
S0612 Surface Targets Development	828	613	2,734	961	1,050	1,137	1,225	CONT. CONT.
TOTAL	26,636	23,582	31,120	28,287	32,846	33,347	33,970	CONT. CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element funds the development and procurement of aerial and surface targets and associated Target Augmentation and Auxiliary Systems (TA/AS) necessary to duplicate or simulate threat characteristics in support of weapons systems test and evaluation and fleet training. Included within this program element are joint QF-4 development, continued development of Navy QF-48 for conversion as part of DOD Tri-Service QF-4 full scale aerial target development program; BQM-74 improvements; various TA/AS developments; and development of the Aerial Target Launch Ship (ATLS) for VANDAL (A0609); conversion of QF-4N and QF-4S, procurement of MQM-8G(EER), development of TA/AS and the Foreign Comparative Test of the Russian MA-31 air-to-surface missile for Navy Weapons Systems Test and Evaluation (A0610); and development of surface targets for test and evaluation, continued development of surface towed targets, improved target control system and an anti-radiation missile target (S0612).

(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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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROGRAM ELEMENT TITLE: Target Systems Development

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL
A0609 Aerial Target Systems Development	12,818	9,370	8,914	20,463	24,823	25,304	26,588		CONT. CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Aerial Target Systems and associated target augmentation and auxiliary systems are developed in response to the need to test and provide training for Joint strike and littoral warfare systems required to defend fleet surface and air units in a hostile environment. The threat envelope covered extends from the surface to 100K feet for speeds in the low subsonic range to MACH 4.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$1,000) Initiated the BQM-74 improvement program based on Subsonic Aerial Target (SAT) Cost and Operational Effectiveness Analysis (COEA).
- (U) (\$ 650) Continued development of QF-4S for conversion instead of QF-4N.
- (U) (\$ 126) Continued support of Joint QF-4 Engineering and Manufacturing Development (EMD) under Air Force lead.
- (U) (\$ 450) Initiated Modeling and Simulation (M&S) efforts.
- (U) (\$7,159) Continued Non-Cooperative Airborne Vector Scorer (NAVS) EMD development.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0609

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Aerial Targets Systems Development

- (U) (\$1,494) Continued development of ULQ-21/Electronic Countermeasures modules.
- (U) (\$ 148) Continued miscellaneous Target Augmentation/Auxiliary System (TA/AS) support.
- (U) (\$1,670) Continued miscellaneous target support.
- (U) (\$ 121) Major Range Test and Facility Base FY 1996 fix. See PE 0605864N, Test and Evaluation Support for justification.

2. (U) FY 1996 PLAN:

- (U) (\$2,791) Continue BQM-74 improvements.
- (U) (\$4,073) Continue NAVS EMD development.
- (U) (\$ 120) Continue TA/AS support.
- (U) (\$ 150) Continue Joint QF-4 development.
- (U) (\$1,427) Continue target support.
- (U) (\$ 664) Continue M&S
- (U) (\$ 145) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$1,491) Continue BQM-74E improvements.
- (U) (\$1,650) Continue M&S.
- (U) (\$ 330) Continue TA/AS support

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0609

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Aerial Targets System Development

- (U) (\$2,775) Update development of the Aerial Target Launch Ship (ATLS) for Vandal.
- (U) (\$ 680) Initiate Supersonic Sea Skimming Target COEA.
- (U) (\$1,988) Continue target support.

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996/1997 President's Budget:

FY 1995
12,698FY 1996
9,704FY 1997
10,517

(U) Adjustments from PRESBUDG:

+120

-334

-1,603

(U) FY 1997 President's Budget Submit:

12,818

9,370

8,914

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: In FY-95, the net increase of \$120 thousand represents an adjustment for Major Range Test Facility Base (+\$121 thousand) and a minor pricing adjustment (-\$1 thousand). FY-96 reductions of \$334 thousand reflect revised DOD inflation rates. FY-97 reductions of -\$1,603 thousand reflect pricing adjustments (+\$1,916 thousand); Defense Business Operating Fund (DBOF) rate adjustments (-\$1,389 thousand); DOD inflation adjustment (-\$324 thousand) and funds transfer to A0610 (-\$1,806 thousand).

(U) Schedule: Not applicable

(U) Technical: Not applicable

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DATE: March 1996

FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0609

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Aerial Targets System Development

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL CONT. CONT.
(U) WPN # 11	119,061	66,627	73,147	72,195	80,927	76,349	79,820		
(U) RELATED RDT&E:									
(U) PE 0204136N									
(U) PE 0205667N									
(U) PE 0207161N									
(U) PE 0207163N									
(U) PE 0604366N									
(U) PE 0604372N									
(U) PE 0604755N									

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BUDGET ACTIVITY: 6
 FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN
 PROGRAM ELEMENT: 0604258N
 ROGRAM ELEMENT TITLE: Target Systems Development
 PROJECT NUMBER: A0609
 PROJECT TITLE: Aerial Targets
 DATE: March 1996
 Systems Development

A. (U) PROJECT COST BREAKDOWN: (\$in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. Hardware Development	8,185	5,013	2,100
b. Systems Engineering	857	591	1,025
c. Integrated Logistics Support	135	180	100
d. Test and Evaluation	105	500	646
e. Configuration Managements	34	0	50
f. Contractor Engineering Support	1,513	1,578	1,962
g. Government Engineering Support	1,747	1,231	2,718
h. Travel	121	132	113
i. Miscellaneous	121	0	200
j. SBIR Assessment		145	
Total	12,818	9,370	8,914

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FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0609

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Aerial Targets
Systems Development

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity Product Development Allied Signal Mishwakua, IN. (MQM-8G(EER) S/CPFF Northrop El Segundo, CA. BQM-74-Phase I S/CPFF Motorola Phoenix, AZ. NAVS Allied Signal Mishwakua, IN. ATLS (Integrn) S/CPIF NAWC (QF-4S/Joint) WX	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
		9/93	5,837	5,837	5,837	0	0	0	0	5,837
		9/95	3,408	3,408	0	832	2,576	0	0	3,408
		9/93	12,516	12,516	4,355	5,661	2,500	0	0	12,516
		12/96 10/95	TBD	TBD	0 1,294	0 674	0 150	2,000 0	Cont Cont	Cont Cont
Contracts Less Than \$1.0M										
NAWC (Misc)	RX	Var			0	1,067	0	100	Cont	Cont
NAWC	WX	Var			3,683	2,966	2,421	4,206	Cont	Cont
Support and Management										
HQ/NAWC (Misc)	TBD	Var			1,180	1,513	1,578	1,962	Cont	Cont
Test and Evaluation										
NAWC (Misc)	TBD	Var			352	105	0	646	Cont	Cont

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0609

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Aerial Targets

Systems Development

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	15,169	11,200	7,647	6,306	Cont	Cont
Subtotal Support and Management	1,180	1,513	1,578	1,962	Cont	Cont
Subtotal Test and Evaluation	352	105	0	646	Cont	Cont
SBIR Assessment			145			145
Total Project	16,701	12,818	9,370	8,914	Cont	Cont

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0610

PROGRAM ELEMENT TITLE: Target Systems Development PROJECT TITLE: Weapon Systems T&E Development/
Procurement

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM CONT.
A0610 WEAPON SYSTEMS T&E DEVELOPMENT/PROCUREMENT	12,990	13,599	19,472	6,863	6,973	6,906	6,157		

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for the development and procurement of aerial targets used solely for test and evaluation of Naval Weapons Systems which closely replicate current and projected threats to fleet units in the Joint Strike and the Littoral Warfare environments. This replication must include characteristics related to size, performance envelope, and electromagnetic and infrared signatures. As threats change, changes must be made to keep the targets as threat representative as possible. This is done in response to changes in the requirements of the developers of naval weapons systems.

B. (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$ 6,017) Converted 2 QF-4Ns and supported the full scale aircraft target program.
- (U) (\$ 1,755) Supported and procured Aircraft Interface Units/Target Control Panels.
- (U) (\$ 256) Final increment on full scale aerial target inducted in FY-94.
- (U) (\$ 2,395) Continued QF-4S development, long lead material, fabrication and kit assembly.
- (U) (\$ 1,720) Completed Advanced Radar Missile Scorer procurement and continue Target Augmentation/Auxiliary Support.
- (U) (\$ 400) Continued aviation depot level repair work for QF-4N aircraft.
- (U) (\$ 447) Continued miscellaneous target support.

2. (U) FY 1996 PLAN:

- (U) (\$ 200) Support 2 QF-4N targets.
- (U) (\$ 2,456) Complete QF-4S development, convert and support 1 F-4S aircraft into QF-4S targets.
- (U) (\$ 6,056) First increment for procurement of 24 Vandals.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0610

PROGRAM ELEMENT TITLE: Target Systems Development
PROJECT TITLE: Weapon Systems T&E Development/
Procurement

- (U) (\$ 2,500) Continue development of Non-Cooperative Airborne Vector Scorer (NAVS) and support the NAVS program.
 - (U) (\$ 1,600) Support Foreign Cooperative Testing Program of the Russian MA-31 for replicating supersonic sea skimming anti-ship cruise missiles.
 - (U) (\$ 485) Continue aviation depot level repair work for QF-4N/QF-4S targets.
 - (U) (\$ 105) Continue miscellaneous target support.
 - (U) (\$ 197) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.
3. (U) FY 1997 PLAN:
- (U) (\$ 800) Support phase out efforts for the QF-4N targets.
 - (U) (\$ 2,310) Support and convert 3 F-4S aircraft into QF-4S targets.
 - (U) (\$ 9,721) Second increment for procurement of Vandals.
 - (U) (\$ 2,500) Provide Joint QF-4 tri-service program funds for Engineering Change Proposals of Navy unique requirements and program support.
 - (U) (\$ 3,100) Complete NAVS Engineering and Manufacturing Development phase.
 - (U) (\$ 671) Continue aviation depot level repair work for QF-4N/QF-4S targets.
 - (U) (\$ 370) Continue miscellaneous target support.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0610

PROGRAM ELEMENT TITLE: Target Systems Development
PROJECT TITLE: Weapon Systems T&E Development/
Procurement

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996/1997 President's Budget:

(U) Adjustments from PRESBUDG:

(U) FY 1997 President's Budget Submit:

FY 1995	FY 1996	FY 1997
12,990	14,030	15,232
0	-431	+4,240
12,990	13,599	19,472

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 96 reductions of \$431 thousand reflect revised DOD inflation rates. The FY 97 net increase of \$4,240 thousand reflects the Navy's decision to procure 24 MQM-8G (EER) Vandals beginning in FY 96 (+\$9,700 thousand); funds transferred from A0609 (+\$1,806 thousand); Defense Business Operating Fund (DBOF) related adjustments (-\$1,555 thousand); DOD inflation adjustment (-\$540 thousand); Weapon system T&E (-\$4,881 thousand); and minor pricing adjustments (-\$290 thousand).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

(U) PE 0204136N (F/A-18 Squadrons)
 (U) PE 0205667N (F-14 Upgrade)
 (U) PE 0207161N (Tactical Air Intercept)
 (U) PE 0207163N (Advanced Medium Range Air-to-Air Missile)
 (U) PE 0604366N (Standard Missile Improvements)
 (U) PE 0604372N (New Threat Upgrade)
 (U) PE 0604755N (Ship Self Defense)

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BUDGET ACTIVITY: 6
 FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN
 DATE: March 1996
 PROGRAM ELEMENT: 0604258N
 PROJECT NUMBER: A0610
 PROGRAM ELEMENT TITLE: Target Systems Development
 PROJECT TITLE: Weapon Systems
 T&E Dev/Procurement

	FY 1995	FY 1996	FY 1997
A. (U) PROJECT COST BREAKDOWN: (\$in thousands)			
Project Cost Categories			
a. Hardware Develop/Procurement	4,482	9,251	12,421
b. Material	901	0	2,031
c. Systems Engineering	2,797	230	629
d. Integrated Logistics Support	2,119	590	671
e. Test and Evaluation	0	0	0
f. Configuration Managements	302	0	0
g. Contractor Engineering Support	907	517	643
h. Government Engineering Support	1,326	2,728	2,995
i. Travel	156	86	82
j. Miscellaneous	0	0	0
k. SBIR Assessment		197	
Total	12,990	13,599	19,472

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DATE: March 1996

FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0610

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Weapon Systems

T&E Dev/Procurement

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity Product Development Cambridge McLean, VA. ARMS Allied Signal Mishwakua, IN. MQM-8G(HER) Motorola Phoenix. AZ. NAVS Tracor (AF) NAWCWD (QF-4N/S) NADEP CHPT (QF-4N/S) NAWCWD (MA-31) NAWCWD (Vandal)	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Comp	Total Program
7/92	S/FFP	4,748	4,748	3,809	939	0	0	0	4,748	
12/95	C/CPFF	14,491	14,491	0	0	5,680	8,811	0	14,491	
9/93	C/CPFF	TBD	TBD	0	0	2,215	1,626	0	Cont	
10/96	WX	2,580	2,580	300	0	0	2,280	0	2,580	
10/96	WX	10/96	2,580	2,158	3,813	1,116	463	Cont	Cont	
10/96	WX	10/96	1,600	8,418	6,210	1,325	2,459	Cont	Cont	
10/96	WX	10/96	1,183	0	0	1,600	0	0	1,600	
10/96	WX	10/96	1,183	0	0	273	910	0	1,183	
Contracts Less Than \$1.0M										
HQ/NAWC (Misc)	WX	Var	1,326	866	945	676	2,280	Cont	Cont	
NAWC	RX	Var			272	0	0	Cont	Cont	
Support and Management										
HQ/NAWC (MISC)	Var	Var	724	811	517	643	Cont	Cont	Cont	
Test and Evaluation										

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT NUMBER: A0610

PROJECT TITLE: Weapon Systems
T&E Dev/Procurement

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Support	16,874	12,179	12,885	18,829	Cont	Cont
Subtotal Support and Management	724	811	517	643	Cont	Cont
Subtotal Test and Evaluation	0	0	0	0	Cont	Cont
SBIR Assessment			197			197
Project Total	17,601	12,990	13,599	19,472	Cont	Cont

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROGRAM ELEMENT TITLE: Target Systems Development

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM
S0612 Surface Targets Development	828	613	2,734	961	1,050	1,137	1,225	CONT. CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project develops seaborne targets systems and their related target augmentation systems in support of air-to-surface and surface-to-surface weapons test and evaluation and fleet training.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$ 165) Continued Command and Control Augmentation development.
- (U) (\$ 80) Continued requirements analysis.
- (U) (\$ 182) Continued Weapons System/Emitter, Target Augmentation System (TAS) upgrade.
- (U) (\$ 145) Completed Surface Target Radar Simulator.
- (U) (\$ 256) Transition Ship Simulator Platform (SSP) to 40 Meter Mobile Ship Target (MST). (NEW START)

2. (U) FY 1996 PLAN:

- (U) (\$ 40) Commence Next Generation Target Control System (NGTCS) Integration with Command and Control Augmentation.
- (U) (\$ 88) Complete requirements analysis.
- (U) (\$ 225) Complete 40 Meter MST documentation/design development.
- (U) (\$ 100) Continue Weapons System/Emitter. TAS Upgrade (Multi-mode TAS).
- (U) (\$ 155) Commence Tow Target Avionics/Electronics development.
- (U) (\$ 5) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: S0612

PROGRAM ELEMENT TITLE: Target Systems Development PROJECT TITLE: Surface Targets Development

3. (U) FY 1997 PLAN:

- (U) (\$ 120) Continue NGTCS Integration with Command and Control Augmentation.
- (U) (\$2,168) Develop 40 Meter MST Test & Evaluation Master Plan (TEMP) and other MS II documentation and procure engineering and manufacturing model for testing.
- (U) (\$ 170) Continue Weapons System/Emitter. TAS Upgrade (Signature Evaluation and Control).
- (U) (\$ 76) Commence development of Modeling and Simulation (M&S) applications.
- (U) (\$ 200) Complete Tow Target Avionics/Electronics development. Procure engineering and manufacturing High Speed Anti-Radiation Missile/Infra Red (HARM/IR) platform for TAS integration and testing.

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996/1997 President's Budget:	828	630	680
(U) Adjustments from PRESBUDG:	0	-17	+2,054
(U) FY 1997 President's Budget Submit:	828	613	2,734

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 96 reduction of \$17 thousand due to Congressional undistributed reductions. The net increase of \$2,054 thousand to FY-97 is for development of 40 Meter MST TEMP and other MS II documentation development and procurement of engineering and manufacturing model for testing (+\$2,300 thousand); revised DOD inflation rates and other minor pricing adjustment (-\$246 thousand).

(U) Schedule: FY97 increase will accelerate completion of 40 Meter MST.

(U) Technical: Not Applicable

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL CONT.
OPN LINE 5516000	4,818	4,205	0	4,589	0	0	0	CONT.	CONT.

(U) RELATED RDT&E: Not applicable.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: S0612

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Surface Targets Development

A. (U) PROJECT COST BREAKDOWN: (\$in thousands)

Project Cost Categories

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
a. Primary Hardware Development	166	380	2,168
b. Developmental T & E	145	0	76
c. Program Management Support	235	58	166
d. Government Engineering Support	256	140	290
e. Travel	26	30	34
f. SBIR Assessment		5	

Total

828 613 2,734

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DATE: March 1996

FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N PROJECT NUMBER: S0612 PROJECT TITLE: Surface Targets Development

PROGRAM ELEMENT TITLE: Target Systems Development

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$In thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Product Development										
NAWC Pt Mugu, CA	WR	Var.	Cont.	Cont.	3,901	131	190	2,038	Cont	Cont
NSWC Norfolk, VA	WR	Var.	Cont.	Cont.	988	15	80	30	Cont	Cont
CRC	C/FP	Var.	Cont.	Cont.	1,262	0	90	50	Cont	Cont
NAVSEA	Var.	Var.	Cont.	Cont.	626	20	20	50	Cont	Cont

Contracts Less Than \$1.0M

Support and Management										
NAWC Pt. Mugu, CA	WR	Var.	Cont.	Cont.	1,365	232	178	190	Cont	Cont
NSWC Norfolk, VA	WR	Var.	Cont.	Cont.	440	0	20	100	Cont	Cont
CRC	C/FP	Var.	Cont.	Cont.	579	235	25	66	Cont	Cont
NAVSEA	Var.	Var.	Cont.	Cont.	265	50	5	134	Cont	Cont

Test and Evaluation										
NAWC Pt. Mugu, CA	WR	Var.	Cont.	Cont.	1,102	140	0	60	Cont	Cont
NSWC Norfolk, VA	WR	Var.	Cont.	Cont.	56	5	0	16	Cont	Cont

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FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: S0612

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Surface Targets Development

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	6,737	166	380	2,168	Cont	Cont
Subtotal Support and Management	2,649	517	228	490	Cont	Cont
Subtotal Test and Evaluation	1,158	145	0	76	Cont	Cont
SBIR Assessment			5			5
Total Project	10,584	828	613	2,734	Cont	Cont

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604759N

PROGRAM ELEMENT TITLE: Major T&E Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W2195 T&E Investment	55,809	49,027	40,612	44,331	51,704	52,938	54,116	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project improves visibility of Test and Evaluation (T&E) resources across the Services for Major T&E investment funding. These funds correct major deficiencies, improve T&E capabilities and increase T&E support effectiveness. The T&E Investment project provides support for the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTEC), Andros Island, Bahamas; the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point MUGU, CA and China Lake, CA; and the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: Budget Activity 6: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$7,336) NAVUNSEAWARCEN DET AUTEC. Initiated the capability to utilize the AUTEC Computer and Display System in support of Global Positioning Systems (GPS) and remote ranges and facilities. Continued work on the systems interface between NAVUNSEAWARCEN, Navy Major Range Test and Facility Base (MRTFB) and facilities with emphasis on compatibility with new technology for in-water tracking. Accelerated implementation of the Down Range Site Reduction program to achieve FY 1996 completion. Continued work on the Countermeasure Resistant Tracking and Advanced Noise Measurement System and initiated requirements for new and existing technologies being installed on the range.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604759N

PROJECT NUMBER: W2195

PROGRAM ELEMENT TITLE: Major T&E Support

PROJECT TITLE: T&E Investment

- (U). (\$13,600) NAVAIRWARCENWPNDIV. Continued to modernize core instrumentation capability. Continued upgrade of six Kineto tracking mounts with (A-mod) theodolite, engineering sequential and laser capabilities. Initiated upgrades to integrate (B-mod) infrared sensor and video track capability. Completed first article tests for advanced range tracker for FPS-16 tracking radars. Completed data interface to Vandenberg multiple object tracking radar. Initiated GPS integration into range data links and data processing. Completed replacement of 1972 master operations control center computers that provide multi-lateration tracking capability. First of five Land Range radar upgrades certified to Initial Operational Capability (IOC). Continued to upgrade control consoles and pedestals for units 2 and 3. Secured contract for pads to support mobile FPS-16 radars for San Nicolas Island. Completed radar cross section (RCS) radar spares upgrades. Continued Electronic Combat Range (ECR) post test analysis and data products hardware and software upgrades. Continued replacement of the high-maintenance CYBER mainframe computers with low-cost distributed microcomputer network. Continued upgrades to the Land Range Control Center Integration and processing System. Continued to improve and secure communication, digital switching, and data processing capabilities. Continued communication and control and radio communication improvements. Continued replacement of flight termination transmitters. Completed installation of second parallel underwater fiber optic cable from Point Mugu to San Nicolas Island. Continued digitization of analog telemetry (TM) data to eliminate analog microwave. Continued modernization upgrades to the Integrated Target Control Systems (ITCS) and initiated requirements for new and existing technologies being installed on the range. Completed ECR operation center upgrades. Completed air traffic control display systems (R-2508 rehost) at the Sea Test Range. Completed third of three Sea Range operations control room upgrades.

- (U) (\$9,655) NAVAIRWARCENACDIV. Continued System Rehabilitation and Modernization (SRAM) efforts on existing flight test and ground test systems to maintain core capabilities. Continued improvements to dynamic avionics measurement capability. Continued upgrades to range flight test secure communications, tracking and data computation systems. Continued improvements to T&E data processing and networking. Continued Electromagnetic Environmental Effects (E3), Electromagnetic Transient T&E and portable Range Support Aircraft Instrumentation improvements and initiated requirements for new and existing technologies being installed on the range.

- (U) (\$14,712) GPS. Continued to procure and integrate the Tri-Service Range Application Joint Program Office (RAJPO) GPS system equipment for NAVAIRWARCENWPNDIV AND NAVAIRWARCENACDIV. Completed Full Scale Engineering Development, completed Low Rate Initial Production equipment delivery. Achieved IOC of initial production systems. Initiated the procurement process for the Large Area Tracking Range (LATR) GPS equipment for NAVUNSEAWARCEN DET AUTEC.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604759N

PROGRAM ELEMENT TITLE: Major T&E Support

PROJECT NUMBER: W2195

PROJECT TITLE: T&E Investment

- (U). (\$6,118) Portable Tracking System (PTS). Continued to monitor the procurement of major hardware in support of PTS. Continued signal processor and software development.
- (U) \$4,388) Provided maintenance and operational support for Major Range Test Facility Bases. Funds are required to meet acquisition program workload.
- 2. (U) FY 1996 PLAN:
 - (U) (\$7,209) NAVUNSEAWARCEN DET AUTEC. Complete Integrated Processing and Communication System project. Complete Down Range Site Reduction Project. Complete Interface with Ranges and Facilities project. Initiate the Replace In-Water Hydrophones project. Continue countermeasures for new and existing technologies. Initiate an Instrumentation Component Replacement (ICR) program.
 - (U) (\$15,722) NAVAIRWARCENWPNDIV. Continue to modernize core instrumentation capability. Continue upgrade of six Kineto tracking mounts with (B-mod) infrared sensor and video track capability. Initiate four (7,8,9,10) Kineto upgrade tracking radars. Continue GPS integration into range data links and data processing. Integration of RAJPO GPS Data Link Systems at North and Sea Ranges (China Lake and Point Mugu) will achieve IOC early in FY 1996. Initiate GPS support facility. Continue second and third of five Land Range radar upgrades to control consoles and pedestals. Radar service life extension: Upgrade and mobilize one FPS-16 radar for San Nicolas Island. Continue ECR post test analysis and data products hardware and software upgrades. Complete replacement of the high-maintenance CYBER mainframe computers with low-cost distributed microcomputer network. Continue upgrades to the Land Range Control Center Integration and Processing System. Initiate weapons flyout simulation upgrade at ECR. Initiate Common Data Systems project for Weapons Division. Continue to improve and secure communication, digital switching, cable plant, and data processing capabilities. Complete digital switch at ECR. Continue communication control and radio communication improvements. Complete ECR range communications systems upgrades to digital switching, data transmission, and hub architecture. Complete replacement of flight termination transmitters. Complete telemetry analog data digitization and analog microwave elimination. Complete modernization upgrades to ITCS. Continue requirements for new and existing technologies. Initiate high rate TM data acquisition and processing upgrades. Initiate environmental chamber and propulsion test data control and processing upgrades. Initiate surface targets habitability safety modifications. Initiate upgrades to increase threat radar signal density at ECR.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEETExhibit DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604759N

PROGRAM ELEMENT TITLE: Major T&E Support

PROJECT NUMBER: W2195

PROJECT TITLE: T&E Investment

- (U) (\$8,654) NAVAIRWARCENACDIV. Continue Instrumentation Component Replacement (ICR) (formerly SRAM) efforts on existing flight test and ground systems to maintain core capabilities. Continue upgrade of dynamic avionics measurement capabilities. Complete initial E3 test capability improvements. Continue upgrades to range flight test secure communication and high definition video, tracking, and data acquisition computation systems. Continue improvements to T&E data processing and communication of data with external activities. Continue requirements for new and existing technologies. Continue Electromagnetic Transient T&E improvements.
 - (U) (\$7,851) GPS. Continue to procure and integrate the Tri-service RAJPO GPS system equipment. Continue to provide engineering support toward two years of Full Rate Production beginning mid FY 1996. Complete procurement and integration of LATR GPS equipment for NAVUNSEAWARCEN DET AUTEC.
 - (U) (\$5,494) PTS. Complete the Production Shallow Water System Contract. Complete the 104 Channel Digital Signal Processor. Complete the Tracking and Display Software. Integrate the Communication Sub-System. Integrate the In-Air (GPS) Tracking Sub-System.
 - (U) (\$3,999) Continue to provide maintenance and operational support for Major Range Test Facility Bases. These funds provide essential test capabilities to meet acquisition program workload.
 - (U) (\$98) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C 638.
3. (U) FY 1997 PLAN:
- (U) (\$11,335) NAVUNSEAWARCEN DET AUTEC. Complete Countermeasure Resistant Tracking project. Continue Advanced Noise measurement Project. Continue the Replace In-Water Hydrophones project. By the start of this program, the Tracking Hydrophones in the Tongue of the Ocean will be 34 years old. The new in-water tracking technology, which will be available at the time of implementation, will make this a cost-effective replacement approach. This program will avoid catastrophic failures resulting in loss of in-water tracking. Cables will run to Site 1, reducing down range site activity, and reducing data communication from down range sites to Command and Control at Main Base. Complete requirements for new and existing technologies. Continue AUTEC's ICR efforts.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604759N

PROGRAM ELEMENT TITLE: Major T&E Support

PROJECT NUMBER: W2195

PROJECT TITLE: T&E Investment

- (U). (\$17,789) NAVAIRWARCENWPNDIV. Continue to modernize core instrumentation capability. Continue upgrade of four (7,8,9, 10) Kineto tracking mounts with (B-mod) infrared sensor and video track capability. Continue radar service life extension upgrades on third of seven FPS-16 radars, while mobilizing the second (upgraded in FY 1996) FPS-16 for San Nicolas Island. Complete integration of GPS RAJPO equipment into Range systems. Continue development of GPS support facility. Continue second and third of five Land Range radar upgrades to control consoles and pedestals. Complete mobilization of two FPS-16 radars for San Nicolas Island. Complete ECR post test analysis and data products hardware and software upgrades. Complete upgrades to the Land Range control Center Integration and Processing System. Continue weapons flyout simulation upgrade at ECR. Continue Common Data Systems project for Weapons Division. Continue to improve and secure communication, cable plant, and data processing capabilities. Continue communication and control and radio communication improvements. Continue high rate TM data acquisition and processing upgrades. Continue propulsion test data control and processing upgrades. Complete surface targets habitability safety mods. Complete requirements for new and existing technologies. Initiate surface target navigation upgrade. Complete upgrades to increase threat radar signal density at ECR.
- (U). (\$5,050) NAVAIRWARCENACDIV. Continue ICR efforts on existing flight test and ground test systems to maintain core capabilities. Continue upgrade of dynamic avionics measurement capabilities. Continue improvement to range command, control, tracking, and data acquisition and computation systems. Continue upgrades to T&E data processing and communication. Complete requirements for new and existing technologies. Continue upgrades to Electromagnetic Transient T&E capabilities.
- (U) (\$3,680) GPS. Continue to procure and integrate the Tri-service RAJPO GPS system equipment. Continue to provide engineering support during second year of Full Rate Production, leading to final Full Rate Production equipment delivery at end of FY 1997.
- (U) (\$2,758) PTS. Deliver System to NAVUNSEAWARCEN DET AUTEC. Operationally release PTS system to AUTEC.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604759N PROJECT NUMBER: W2195
PROGRAM ELEMENT TITLE: Major T&E Support PROJECT TITLE: T&E Investment

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996/FY 1997 President's Budget:	51,810	46,586	43,968
(U) Adjustments from PRESBUDG	+3,999	+2,441	-3,356
(U) FY 1997 President's Budget Submit:	55,809	49,027	40,612

(U) CHANGE SUMMARY EXPLANATION: (Dollars in Thousands)

(U) Funding: The FY 1995 reflects an increase of \$4,388 thousand for Major Range Test Facility Base adjustments, and a decrease of \$389 thousand for minor pricing adjustments. The FY 1996 increase reflects \$3,999 thousand for Major Range Test Facility Base adjustment; a decrease of \$962 thousand for Congressional undistributed general and inflation reductions; and a decrease of \$596 thousand for revised DoD inflation rates. The FY 1997 decrease reflects \$2,106 thousand for program specific reductions; a decrease of \$1,227 thousand for revised DoD inflation rates; and \$23 thousand for other minor pricing adjustments.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: PE 0605864N: Test and Evaluation Support (Navy)
PE 0605807F: Test and Evaluation Support (Air Force).

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BUDGET ACTIVITY: 6
 FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET
 DATE: March 1996
 PROGRAM ELEMENT: 0604759N
 PROJECT NUMBER: W2195
 PROGRAM ELEMENT TITLE: Major T&E Support
 PROJECT TITLE: T&E Investment

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. Advance Weapon Noise Measurement	1,790	1,098	2,750
b. Countermeasure Resist Track	610	1,200	3,200
c. Down Range Site Reduction	1,700	2,850	
d. Dynamic Avionics Measurements	2,000	3,000	1,500
e. ECR Data Processing Upgrade	895	100	1,200
f. EM Environmental Effects	1,000	400	
g. Environmental Investment	2,795	5,623	3,319
h. Fiber Optic Upgrade	580	1,010	670
i. GPS LATR	5,570	2,617	
j. GPS RAJPO	9,142	5,234	3,680
k. Instrumentation Component Replacement	4,915	4,622	4,629
l. Interface with Remote Range & Facilities	2,450	500	
m. Portable Tracking Range	6,118	5,494	2,758
n. Range Data System	1,000	250	
o. Range Op System	1,000	1,400	600
p. Range Telemetry Systems	460	1,605	2,615
q. RIPS	1,035	350	220
r. Sea Range Display System	950	100	1,643
s. Service Life Extension of AN/FPS-16 Radars		1,700	1,900
t. Tracking Hydrophone Replacement		100	4,300
u. Tracking Mounts	1,020	1,550	2,350
v. Maintenance and Operations	4,388	3,999	
w. SBIR Assessment		98	
x. Various I&M project (Less than \$1 million)	6,391	4,127	3,278
TOTAL	55,809	49,027	40,612

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604759N PROJECT NUMBER: W2195
 PROGRAM ELEMENT TITLE: Major T&E Support PROJECT TITLE: T&E Investment

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in 'thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Product Development										
AUTEC	WX	10/96	82,734	82,734	20,697	19,838	13,859	13,008	15,332	82,734
NAWCAD	WX	10/96	TBD	TBD	36,428	11,004	8,354	3,850	CONT.	CONT.
NAWCWD	WX	10/96	TBD	TBD	55,411	22,197	23,802	21,469	CONT.	CONT.
All other contracts less than \$1.0M (Aggregate Total):										
AUTEC	WX	10/96	TBD	TBD	4,140	786	1,461	1,085	CONT.	CONT.
NAWCAD	WX	10/96	TBD	TBD	15,672	1,400	300	1,200	CONT.	CONT.
NAWCWD	WX	10/95	TBD	TBD	16,458	584	1,153	0	CONT.	CONT.

Support and Management: Not applicable.

Test and Evaluation: Not applicable.

GOVERNMENT FURNISHED PROPERTY: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604759N

PROJECT NUMBER: W2195

PROGRAM ELEMENT TITLE: Major T&E Support

PROJECT TITLE: T&E Investment

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development:	148,806	55,809	48,929	40,612	CONT.	CONT.
Subtotal Support and Management:	0	0	0	0	0	0
Subtotal Test and Evaluation:	0	0	0	0	0	0
SBIR Assessment	0	0	98	0	0	98
Total Project	148,806	55,809	49,027	40,612	CONT.	CONT.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
L2097 Manpower, Personnel and Training								
318	266	250		254	293	299	CONT.	CONT.
M0106 Naval Medical Support Capability								
139	105	100		103	119	122	CONT.	CONT.
R0132 CNO Program Analysis and Evaluation								
271	262	258		264	310	317	CONT.	CONT.
R0133 National Academy of Sciences/Naval Studies Board								
1,342	1,957	2,375		2,388	2,419	2,420	CONT.	CONT.
R0147 Operational Strategic and Tactical Effectiveness Analysis								
415	403	393		405	474	484	CONT.	CONT.
R2040 Foreign Ship and Submarine Vulnerability Program								
597	0	0		0	0	0	0	2,403
S2233 Naval Surface Warfare Studies								
1,950	1,767	1,677		1,709	1,951	1,996	CONT.	CONT.
W2092 Naval Aviation Studies								
1,636	2,018	2,121		2,000	2,032	2,047	CONT.	CONT.
TOTAL	6,668	6,778	7,174	7,123	7,598	7,685	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides analytical support to the Secretary of the Navy and the Chief of Naval Operations as a basis for major policy, planning and acquisition program execution decisions. It supports research and development strategy development and planning. It supports studies in the areas of manpower, personnel, training, and aviation. It also develops analytical tools for evaluating effectiveness of U.S. weapons against potential foreign threat ships and submarines.

(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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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
L2097 Manpower, Personnel and Training	318	266	250	254	293	299	307	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Chief of Naval Personnel has an ongoing need for direct analyses of Navy manpower and personnel (MP) policies and program planning. This project provides an essential management tool to: (a) assess the effectiveness of existing MP policies and programs, (b) identify needs for new policies and programs, (c) determine the required manpower and training mix relative to changing demographic, societal and legislative/regulatory trends, and to evolving strategic and geopolitical factors, (d) study the impact of MP programs on Navy accession, retention, and performance, and (e) develop, validate and/or refine a broad range of MP forecasting models. The program permits Navy to more effectively utilize Research and Development expertise to respond to emerging MP problems.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$75) Started a study of how professionally-managed recreation programs promote gender integration.
- (U) (\$25) Conducted a study effort to define and assess the extent of violence involving Navy personnel or family members.
- (U) (\$50) Completed of the Navy Combat Leadership study for inclusion into Navy Leadership Continuum.
- (U) (\$66) Conducted a study to determine how best to incorporate the new 1700 officer community into the office projection and planning models.
- (U) (\$40) Completed study of costs and benefits of alternative graduate education programs.
- (U) (\$32) Initiated an analysis of the Navy Retention/Separation Questionnaire to determine accuracy, and suitability for intended purposes.
- (U) (\$30) Conducted analysis to assist manpower planners in determining infrastructure inefficiencies, duplication of functions among activities and potential for reduction or consolidation in support of Program Review 97.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis
Support, Navy

PROJECT NUMBER: L2097

PROJECT TITLE: Manpower, Personnel and Training

2. (U) FY 1996 PLAN:

- (U) (\$49) Complete study of professionally-managed recreation programs in promoting gender integration.
- (U) (\$65) Conduct studies and analyses on impact of moving the Bureau of Naval Personnel (BUPERS).
- (U) (\$75) Support the BUPERS initiatives to examine how manpower and personnel management should be done in the future.
- (U) (\$48) Support efforts to relate quality of life to retention and readiness.
- (U) (\$25) Complete analysis of the Navy Retention/Separation Questionnaire.
- (U) (\$4) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$67) Support efforts to redefine the way manpower and personnel management is done in the future.
- (U) (\$74) Support efforts to redefine and establish career paths for Navy enlisted personnel similar to the Navy officer career paths.
- (U) (\$74) Continue to perform studies and analysis of the women on ships initiatives.
- (U) (\$35) Examine cultural diversity and the impact it will have on readiness and effectiveness.

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996 President's Budget:	318	273	257
(U) Adjustments from FY 1996 PRESBUDG:	0	-7	-7
(U) FY 1997 PRESBUDG Submit:	318	266	250

(U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: FY 1996 adjustment is due to the following: Congressional undistributed reductions (-4), revised DOD

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: L2097

PROGRAM ELEMENT TITLE: Studies and Analysis
Support, Navy

PROJECT TITLE: Manpower, Personnel and Training

economic assumptions (-3). FY 1997 reduction is based on revised DOD inflation estimates (-7).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

(U) PE 0603707N (Manpower, Personnel, and Training Advanced Technology Development)
(U) PE 0604703N (Manpower, Personnel, Training, Simulation and Human Factors)
(U) PE 0602234N (Materials, Electronics and Computer Technology)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0106 Navy Medical Support Capability	139	105	100	103	119	122	125	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides validated data to identify the root causes of problems and to optimize services associated with the health care delivery to Navy and Marine Corps personnel afloat and in contingency operations. This usually requires database and model development and statistical analyses of inter-related requirements or operational variables, and their impact on performance. The analysis of these variables requires a combination of medical/technical knowledge and operational perspectives.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$139) Analyzed the database of pregnancy outcomes to identify potential health risks for women aboard ships; identified medical evacuation patterns, potential reproductive hazards, and issues of health care delivery for female patients to provide data on increasing numbers of women in deployed or operational environments to optimize health care.
2. (U) FY 1996 PLAN:
 - (U) (\$105) Establish a database from multiple sources and examine the relationships between completed suicides, gestures, and attempts, and organizational and environmental factors in the Navy and Marine Corps to identify risk factors and opportunities for intervention.
3. (U) FY 1997 PLAN:
 - (U) (\$100) Evaluate changing operational requirements and identify methods to improve the aggregation, display, and utilization of shipboard automated medical system (SAMS) information to assist fleet surgeons and force medical officers in mission support.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: M0106

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

PROJECT TITLE: Navy Medical Support Capability

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996 President's Budget:	<u>FY 1995</u> 106	<u>FY 1996</u> 106	<u>FY 1997</u> 103
(U) Adjustments from FY 1996 PRESBUDG:	+33	-1	-3
(U) FY 1997 PRESBUDG Submit:	139	105	100

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 increase reflects execution adjustment (+33). FY 1996 reduction is due to a Congressional general reduction (-1K). FY 1997 reduction is due to revised DOD inflation estimate (-3).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0132 CNO Program Analysis and Evaluation	271	262	258	264	310	317	325	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides analytical support to the Chief of Naval Operations and the Secretary of the Navy in evaluation of overall balance within total Navy programs. This includes such tasks as: (a) evaluation of force capabilities and requirements; (b) analyses of effectiveness of systems under development; (c) Secretary of Defense directed independent cost and effectiveness analyses of major Navy programs; and (d) items of Congressional interest as they relate to Navy programs. Deliverables consist of formal, structured documents containing or leading to conclusions and/or recommendations as well as the development and maintenance of databases and models. The use of databases and models is driven by the need to objectively and continually assess the impact of reduced funding and/or force drawdown upon Navy programs. They provide Navy planners and decision makers with objective, empirical data with which to make determinations regarding program planning and evaluation of issues. The models funded by this account are the primary tools used to formulate program balance in the assessment process (particularly the Readiness, Support and Infrastructure Assessment and the Investment Balance Review). The analyses based on these models form the heart of the Investment Balance Review, allowing the Navy to formulate and cost-out alternative force structure, manpower, infrastructure and readiness programs.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$248) Maintained the Aviation Readiness model and the Ships Resource-to-Readiness model.
 - (U) (\$23) Continued to conduct studies and analyses to support the Navy's Assessment process.
2. (U) FY 1996 PLAN:
 - (U) (\$262) Develop, maintain and perform analysis with the Aviation Readiness model and the Ships Resource-to-Readiness model (including Navy parts inventory work) and other econometric and readiness models.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N PROJECT NUMBER: R0132
 PROGRAM ELEMENT TITLE: Studies and Analysis PROJECT TITLE: CNO Program Analysis and Evaluation
 Support, Navy

3. (U) FY 1997 PLAN:
 - (U) (\$258) Develop, maintain and perform analysis with the Aviation Readiness model and the Ships Resource-to-Readiness model (including Navy parts inventory work) and other econometric models.

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996 President's Budget:	271	269	265
(U) Adjustments from FY 1996 PRESBUDG:	0	-7	-7
(U) FY 1997 PRESBUDG Submit:	271	262	258

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 adjustment is due to the following: Congressional undistributed reductions (-4), revised DOD economic assumptions (-3). FY 1997 adjustment is due to the following: revised DOD inflation estimate (-7).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

(U) PE 0605154N (Center for Naval Analysis)
 (U) PE 0605873M (Marine Corps Program Wide Support)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

DATE: March 1996

(U) COST: (Dollars in Thousands)

PROJECT

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0133 National Academy of Sciences/Naval Studies Board	1,342	1,957	2,375	2,388	2,419	2,420	2,420	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the core program for the Naval Studies Board. As agreed upon between the Chief of Naval Operations (CNO) and the President of the National Academy of Sciences and with appropriate attention to the influence of the domestic economy, national objectives, social imperatives and anticipated military requirement, the Naval Studies Board will conduct and report upon surveys, investigations, and analyses in the field of scientific research and development applicable to the operation and function of the Navy. Reports consist of a briefing to the Assistant Secretary of the Navy (Research Development and Acquisition) (ASN (RD&A)) and the CNO and staff, and written technical reports. This project supported Technology Initiative Games at the Naval War College in FY 1995.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$1,342) Continued Office of Naval Research (ONR) research efforts and investigations in the areas of interest to the Navy. Continued to support annual Navy authorized activities of importance, such as the Annual Classified Military Space Symposium and the Weinblum Memorial Lecture Series. Also continued to support the Technology Initiative Games at the Naval War College.

2. (U) FY 1996 PLAN:

- (U) (\$658) Continue ONR research efforts and investigations in the areas of interest to the Navy. Continue to support annual Navy authorized activities of importance, such as the Annual Classified Military Space Symposium and the Weinblum Memorial Lecture Series.
- (U) (\$1,255) Produce investigations of significant importance to the Navy concerning technology of the future, selected from proposals received from CNO and ASN (RD&A).
- (U) (\$44) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N PROJECT NUMBER: R0133
PROGRAM ELEMENT TITLE: Studies and Analysis PROJECT TITLE: National Academy of Sciences/Naval
Support, Navy Studies Board

with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$658) Continue ONR research efforts and investigations in the areas of interest to the Navy. Continue to support annual Navy authorized activities of importance, such as the Annual Classified Military Space Symposium and the Weinblum Memorial Lecture Series.
- (U) (\$1,717) Produce investigations of significant importance to the Navy concerning technology of the future, selected from proposals received from CNO and ASN (RD&A).

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996 President's Budget:	423	2,494	2,507
(U) Adjustments from PRESBUDG:	+919	-537	-132
(U) FY 1997 PRESBUDG Submit:	1,342	1,957	2,375

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 change reflects increased program requirements (+919). FY 1996 adjustment is due to the following: miscellaneous Congressional specific reductions and undistributed reductions (-514), revised DOD economic assumptions (-23). FY 1997 is due to the following: management support reductions to Naval Studies Board (-61), and revised DOD inflation estimates (-71).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0147 Operational Strategic and Tactical Effectiveness Analysis	415	403	393	405	474	484	495	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides the Chief of Naval Operations and the Secretary of the Navy direct analyses of Navy policy, strategy acquisition, and program planning in meeting the following objectives: (a) producing study results impacting upon important programs/issues; (b) identifying and evaluating policy and strategy alternatives and doctrine; and (c) evaluating the capabilities of programmed forces to accomplish missions assigned to the Navy. Deliverables consist of formal, structured documents containing or leading to conclusions and/or recommendations as well as the development and maintenance of databases and models. This project directly supports and is critical for conducting the Navy's joint mission assessments.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$215) Conducted studies and performed analysis evaluating concepts and strategies, defining requirements, assessing capabilities, reviewing program alternatives and analyzing program and planning issues.
 - (U) (\$200) Updated the Capabilities Resource Allocation Display (CAPRAD) Database, Integrated Program Assessment (IPAS), and Integrated Theater Engagement Model (ITEM).
2. (U) FY 1996 PLAN:
 - (U) (\$214) Continual reviews of the CAPRAD Database will be conducted and econometric/statistical analyses will be performed on the impact of changes resulting from downsizing and programmatic changes. Plans also include updating and revalidating the IPAS and other models in order to run these programs using revised allocation displays.
 - (U) (\$175) Conduct studies and provide enhancements to ITEM, the primary tool for campaign analysis for Assessments.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis
Support, Navy

PROJECT NUMBER: R0147

PROJECT TITLE: Operational Strategic and Tactical
Effectiveness

- (U) (\$14) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$218) Continual reviews of the CAPRAD Database will be conducted and econometric/statistical analyses will be performed on the impact of changes resulting from downsizing and programmatic changes. Plans also include updating and revalidating the IPAS and other models in order to run these programs using revised allocation displays.
- (U) (\$175) Conduct studies and provide enhancements to ITEM, the primary tool for campaign analysis for Assessments.

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996 President's Budget:	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
	415	414	404
(U) Adjustments from FY 1996 PRESBUDG:	0	-11	-11
(U) FY 1997 PRESBUDG Submit:	415	403	393

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 adjustment is due to the following: Congressional undistributed reductions (-7), revised DOD economic assumptions (-4). FY 1997 reduction is due to revised DOD inflation estimates (-11).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N PROJECT NUMBER: R0147
PROGRAM ELEMENT TITLE: Studies and Analysis PROJECT TITLE: Operational Strategic and Tactical
Support, Navy Effectiveness

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

(U) RELATED RDT&E:

(U) PE 0605154N (Center for Naval Analyses)
(U) PE 0605873M (Marine Corps Program Wide Support)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT

NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
S2233 Naval Surface Warfare Studies	1,950	1,767	1,677	1,709	1,951	1,996	2,043	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for analysis of the warfighting capability of Naval forces by examining specific selected numbers and mixes of surface combatants and other forces that are subjected to representative operational situations in a joint littoral environment. The U.S. strategic emphasis has shifted from global containment and warfighting to a global stability strategy with regional focus. As part of an overall effort at addressing future Naval force levels and capabilities, the Navy must assess the warfighting effectiveness of different mixes of surface combatants in battle groups operating in a littoral warfare environment and develop an investment strategy that supports the capabilities required. Required Operational Capabilities/Projected Operational Environment (ROC/POE) must be updated every two years or created for new ship classes. These ROC/POE's are vitally important in that mission requirements for ships drive equipment configurations, manning levels and associated shipboard accommodations, tailor ship and staff missions, capabilities, manning to new strategies, tactics, operational environments, and policies.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$1,950) Conducted campaign analyses to identify battle force capabilities considering various force mixes. These analyses contributed to developing functional requirements of various task groups in a Joint Littoral context. Warfare capabilities and Measures of Effectiveness obtained from scoping models and these results were used in characterizing capabilities for battle space dominance (air, undersea, surface and land) and for power projection. Verified accuracy of results, reviewed and modified campaign scenarios and operational situations to scope, focus and interpret the analyses. Applied results of these analyses are applicable to the Future Surface Combatant Cost and Operational Effectiveness Analysis (COEA). Incorporated results into strategic planning and investment strategies for future Joint Littoral Warfare Naval Forces. Revised ROC/POE instructions.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: S2233

PROGRAM ELEMENT TITLE: Studies and Analysis
Support, Navy

PROJECT TITLE: Naval Surface Warfare Studies

2. (U) FY 1996 PLAN:

- (U) (\$1,739) Continue analyses to identify battle force capabilities considering various force mixes. These studies will address the warfighting and national security policy and strategy requirements for effective, flexible and cost-efficient Naval Surface Warfare Forces, including the numbers and mixes of surface combatants and other forces that are subjected to representative operational situations in a joint littoral environment. Measures of Effectiveness will be used in characterizing Naval Surface Warfare capabilities for battle space dominance and for power projection. The results will be verified, reviewed and applied to campaign scenarios and operational situations to scope, focus and interpret the analyses. The results of these analyses will be applied to the 21st century combatant (SC 21) COEA and into strategic planning and investment strategies for future Joint Littoral Warfare Naval Forces. Revise ROC/POE instructions.
- (U) (\$28) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$1,677) Continue analyses of Naval Surface Warfare capabilities required for battle space dominance and power projection. Littoral warfare requirements will continue to shape the definition of surface ship capabilities. These studies will be aimed at obtaining the required capabilities in an affordable and effective surface fleet. Revise ROC/POE instructions.

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996 President's Budget:	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
	1,972	1,840	1,763
(U) Adjustments from FY 1996 PRESBUDG:	-22	-73	-86
(U) FY 1997 PRESBUDG Submit:	1,950	1,767	1,677

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: S2233

PROGRAM ELEMENT TITLE: Studies and Analysis
Support, Navy

PROJECT TITLE: Naval Surface Warfare Studies

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 funding change reflects decrease program requirements (-22). FY 1996 funding decrease reflects Congressional undistributed reductions (-53), revised DOD economic assumptions (-20). FY 1997 funding changes include revised DOD economic assumptions (-50), and minor pricing adjustments (-36).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W2092 Naval Aviation Studies	1,636	2,018	2,121	2,000	2,032	2,047	2,061	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports studies over a wide range of naval aviation issues that support the ongoing Joint Strike Assessment (JSA) guidelines. Results provide a basis for recommendations to the Chief of Naval Operations concerning major policy, planning, and acquisition program decisions. This effort is a management initiative which will allow allocation of study resources in a timely manner according to priorities. This ongoing program will continue to leverage more detailed program specific analysis in order to gain insight in acquisition of various weapon systems and their impact on force structure, manning levels, operational readiness and Carrier Air Wing (CVW) effectiveness. This program will also support various Cost and Operational Effectiveness Analysis (COEA) Studies.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$400) Continued CVBG mix requirement analysis based on new tactical and supported aircraft procurement strategies and new world threat structure.
- (U) (\$330) Continued and expanded analysis of strike effectiveness in parametric threat environment with tradeoffs and sensitivities associated with tactics, electronic countermeasures and signature control.
- (U) (\$56) Conducted general aviation studies and COEA studies.
- (U) (\$300) Conducted studies identified from JSA briefings, including support to other assessment areas.
- (U) (\$550) Funded the OSD Precision Strike Architecture Study.

2. (U) FY 1996 PLAN:

- (U) (\$299) Conduct analyses of joint theater ballistic missile defense operations in support of USCINCPAC Forces Korea with Army, Air Force, Ballistic Missile Defense Office, Joint Transfer Missile Defense personnel utilizing the Weapons and Tactics Analysis Center (WEPTAC).

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: W2092

PROGRAM ELEMENT TITLE: Studies and Analysis
Support, Navy

PROJECT TITLE: Naval Aviation Studies

- (U) (\$199) Conduct a joint (N2, N88, and Defense Airborne Reconnaissance Office) study of Predator unmanned air vehicle marinization options under the Joint Program Office.
- (U) (\$680) Conduct the first phase of a two year effort to determine the mission requirements for a Common Support Aircraft (CSA) which will lead to a Milestone 0 decision.
- (U) (\$398) Conduct studies and support for the Joint Strike Assessment process including a study which analyzes alternatives for Naval Aviation squadron reorganization for the E-2/C-2, ES-3/S-3, FA-18 and P-3/EP-3/Reef Point communities, carrier sortie generation, FA-18E/F survivability.
- (U) (\$398) Conduct analyses of unified Commander in Chief's Theater Ballistic Missile Defense (TBMD) Attack Operations concepts as part of the Tri-Service TBMD Attack Operations leading to the development of a Navy concept of operations with the Navy Doctrine Command.
- (U) (\$26) Provide support for aviation related COEAs and studies within NAVAIR and OPNAV.
- (U) (\$18) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3.

(U) FY 1997 PLAN:

- (U) (\$400) Continue and expand analyses of TACAIR and weapons effectiveness including tradeoffs of development and acquisition alternatives utilizing the WEPTAC modeling and simulation (M&S) facility. Perform sensitivity analyses utilizing additional M&S tools as required.
- (U) (\$400) Continue TBMD Attack Operations analyses; develop documentation and criteria to support an Operations Requirements Document.
- (U) (\$400) Continue studies to support JSA issues for the current and follow-on cycle.
- (U) (\$900) Continue and complete the CSA study leading to a Milestone 0 decision.
- (U) (\$21) Conduct general aviation and related COEAs.

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996 President's Budget:	FY 1995	FY 1996	FY 1997
	1,086	3,885	4,144
(U) Adjustments from FY 1996 PRESBUDG:	+550	-1,867	-2,023

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N PROJECT NUMBER: W2092
 PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy PROJECT TITLE: Naval Aviation Studies

(U) FY 1997 PRESBUDG Submit: 1,636 2,018 2,121

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 change reflects an increase in program requirements (+550). FY 1996 reduction reflects the Congressional cancellation of the Common Light Vertical Aircraft study and undistributed reductions (-1,844) and revised DOD economic assumptions (-23). FY 1997 changes include revised DOD inflation estimates (-64) and reduced program requirements (-1,959).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis
Support, Navy

PROJECT NUMBER: W2092

PROJECT TITLE: Naval Aviation Studies

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0031 Marine Corps Operations Analysis Group									
R0148 Center for Naval Analyses, Navy	4,376	4,310	4,314	4,410	4,503	4,621	4,593	CONT.	CONT.
	38,972	38,752	37,937	39,218	40,686	41,756	42,790	CONT.	CONT.
TOTAL	43,348	43,062	42,251	43,628	45,189	46,377	47,383	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Center for Naval Analyses (CNA) is the Department of the Navy's only Federally Funded Research and Development Center. CNA provides independent, objective, and expert analyses based on its unique access to sensitive data and hands-on exposure to fleet operations gained through its world-wide field program. CNA's continuing program of research is primarily concentrated along 10 categories of study called product areas. These product areas are structured to enhance CNA's focus of research and analysis upon the major present and future needs and issues of the Navy and the Marine Corps. Because of rapid advances in technology, changes in the fleet, the increasing complexity of weapon systems, and reductions in manpower, force structure, and budgets, the Navy and Marine Corps have a greater need for analyses that are both sophisticated and timely. CNA is highly qualified to meet that need.

(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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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

(U) COST: (Dollar's in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0031 Marine Corps Operations Analysis Group	4,376	4,310	4,314	4,410	4,503	4,621	4,593	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program supports the Marine Corps' portion of the Center for Naval Analyses (CNA) Research Program under the auspices of the Department of the Navy (DON) Annual Study and Analysis Plan for CNA. It is managed as an element of the Marine Corps Studies System. This program provides independent research and analysis, those appropriate for a Federally Funded Research and Development Center, in the areas of cost and operational effectiveness analysis, manpower utilization, training, force structure, weapons systems analysis, operational tests, and field exercise support. This program also provides CNA field representative and scientific analyst support at major Marine Corps commands.

(U) PROGRAM ACCOMPLISHMENT AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$1,618) Executed the approved Marine Corps portion of the DON FY 1995 Study and Analysis Plan for CNA including "Emerging" and "Quick Response" study and analysis requirements.
- (U) (\$1,558) Staffed six Field Representatives and eight Scientific Analysts.
- (U) (\$1,200) Continued eleven FY 1994 study and analysis projects.

2. (U) FY 1996 PLAN:

- (U) (\$1,934) Execute the approved Marine Corps portion of the DON FY 1996 Study and Analysis Plan for CNA including "Emerging" and "Quick Response" study and analysis requirements.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

PROJECT NUMBER: C0031

PROJECT TITLE: Marine Corps Operations
Analysis Group

- (U) (\$1,631) Staff six Field Representatives and eight Scientific Analysts.
- (U) (\$745) Continue four FY 1995 study and analysis projects.

3. (U) FY 1997 PLAN:

- (U) (\$1,532) Execute the approved Marine Corps portion of the DON FY 1997 Study and Analysis Plan for CNA including "Emerging" and "Quick-Response" study and analysis requirements.
- (U) (\$1,706) Staff six Field Representatives and eight Scientific Analysts.
- (U) (\$1,076) Continue ten FY 1996 study and analysis projects.

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996 President's Budget:	4,376	4,445	4,444
(U) Adjustments from FY 1996 PRESBUDG:	0	-135	-130
(U) FY 1997 PRESBUDG Submit:	4,376	4,310	4,314

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 funding decrease is due to undistributed Congressional reductions (-84) and revised DOD inflation estimates (-51). The FY 1997 reductions is due to revised DOD economic assumptions.

(U) Schedule: The program is level of effort funded. Program schedules have been adjusted to accommodate funding adjustments.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

PROJECT NUMBER: C0031

PROJECT TITLE: Marine Corps Operations
Analysis Group

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

(U) PE 0605873M (Marine Corps Program Wide Support)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0148 Center for Naval Analyses, Navy	38,972	38,752	37,937	39,218	40,686	41,756	42,790	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the Navy's portion of the Center for Naval Analyses (CNA) research program. CNA's study and analysis capabilities for the Navy cover 9 categories, or product areas, of research, including: 1) Manpower, Medical and Training; 2) Policy and Operations; 3) Infrastructure and Readiness; 4) Space and Electronic Warfare/Command, Control, Communications, and Computers/Intelligence and Information and Modeling and Simulation; 5) Systems and Force Structure; 6) Research, Development and Acquisition; 7) Field Program; 8) Scientific Analysts; and 9) Quick Response Projects. CNA's analyses have resulted in substantial improvements in force structure, fleet effectiveness, and significant cost avoidance.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$38,972) Addressed issues of major importance to Navy leadership in the above research areas. CNA's research program was continually updated to support the Navy efficiently and effectively. CNA's analytical support was critical to Navy's transition to smaller budgets in a shifting national security environment. Approximately 20% of CNA's funding went to support analysts in field billets in over 40 locations around the world and at sea. Of the approximately 120 research projects ongoing at any given time, which span the nine different product areas, major emphasis was in the Policy and Operations, and the Systems and Force Structure product areas.

2. (U) FY 1996 PLAN:

- (U) (\$38,752) Address issues of major importance to Navy leadership in the above research areas. CNA's research

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

PROJECT NUMBER: R0148

PROJECT TITLE: Center for Naval Analyses, Navy

program will continue efforts on 62 individual projects representing almost 30% of the funding. An additional 20% of CNA's funding supports analysts in field billets in over 40 locations around the world and at sea. Of the approximately 120 research projects ongoing at any given time, which span the nine different product areas, major emphasis is in the Policy and Operations, and the Systems and Force Structure product areas.

3. (U) FY 1997 PLAN:

- (U) (\$37,937) Address issues of major importance to Navy leadership in the above research areas. CNA's research program will be continually updated to support the Navy efficiently and effectively. Support for the CNA field program, which assigns analysts to over 40 locations around the world and at sea, will continue to comprise approximately 22% of the funding. Additionally, emphasis will be in the Policy and Operations and System and Force Structure product areas.

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996 President's Budget:	FY 1995 38,972	FY 1996 39,984	FY 1997 40,061
(U) Adjustments from FY 1996 PRESBUDG:	0	-1,232	-2,124
(U) FY 1997 PRESBUDG Submit:	38,972	38,752	37,937

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 adjustment is due to the following: Congressional undistributed reductions (-761), revised DOD economic assumptions (-471). FY 1997 adjustment is due to the following: management support reduction (-979), and revised DOD inflation estimate (-1,145).

(U) Schedule: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROJECT NUMBER: R0148

PROGRAM ELEMENT TITLE: Center for Naval Analyses

PROJECT TITLE: Center for Naval Analyses,
Navy

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

(U) PE 0605152N (Studies and Analysis Support)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605154N PROJECT NUMBER: R0148 DATE: March 1996
PROGRAM ELEMENT TITLE: Center for Naval Analyses PROJECT TITLE: Center for Naval Analyses,
Navy

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605155N

PROGRAM ELEMENT TITLE: Fleet Tactical Development and Evaluation

(U) COST: (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0151 Intertype Tactical Development and Evaluation	4,332	2,522	2,998	3,103	3,688	3,787	3,896	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element supports all naval warfare task areas and provides technical and analytical support to the fleet operating forces to develop and evaluate tactics for newly evolving force structures, new and existing weapon system employment, and changing threat scenarios to improve and measure force readiness.

(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.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$608) Continued to develop strike warfare/joint procedures.
 - (U) (\$120) Developed submarine coordinated procedures.
 - (U) (\$555) Continued development of ships defense tactics, including hardkill/softkill considerations.
 - (U) (\$215) Evaluated and further developed surface-to-air missile tactics.
 - (U) (\$213) Developed air littoral tactic.
 - (U) (\$340) Developed tactics for avoiding/suppressing of integrated air defense system.
 - (U) (\$145) Developed air tactics in support of amphibious operations.
 - (U) (\$128) Developed F-18 tactics.
 - (U) (\$440) Continued to develop mine countermeasure tactics.
 - (U) (\$97) Evaluated and further developed anti-surface underwater warfare tactics.
 - (U) (\$680) Continued to upgrade/maintain operation of Navy Lessons Learned System.
 - (U) (\$488) Continued to refine/develop communication tactics.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605155N

PROGRAM ELEMENT TITLE: Fleet Tactical Development and Evaluation

PROJECT NUMBER: R0151

PROJECT TITLE: Intertype Tactical Development Integration

- (U) (\$50) Developed and published annual report for Steering Committee and quarterly reports.
- (U) (\$50) Developed anti-diesel submarine tactics.
- (U) (\$50) Developed MK 46/50 Armpoints Tactics.
- (U) (\$100) Developed Submarine Anti-Diesel Tactics.
- (U) (\$53) Developed Carrier Battle Group Tactics vs. small boat.

2. (U) FY 1996 PLAN:

- (U) (\$430) Develop expeditionary warfare tactics against emerging threats and adapt blue water tactics to near land scenarios.
- (U) (\$340) Develop command, control, communications and computer intelligence (C4I)/command and control warfare (C2W) tactics to counter emerging threats.
- (U) (\$450) Develop Joint/Combined Force tactics to counter emerging threats.
- (U) (\$180) Develop mine countermeasure tactics against specific emerging threat mines.
- (U) (\$375) Develop combat identification tactics.
- (U) (\$150) Develop Battle Damage Assessment tactics.
- (U) (\$365) Develop Cooperative Engagement Concept/theater air defense tactics.
- (U) (\$200) Develop attack helicopter tactics.
- (U) (\$32) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$465) Continue to develop expeditionary warfare tactics against emerging threats and adapt blue water tactics to near land scenarios.
- (U) (\$450) Continue development of C4I/C2W tactics to counter emerging threats.
- (U) (\$450) Continue to develop Joint/Combined force tactics to counter emerging threats.
- (U) (\$450) Continue to develop combat identification tactics.
- (U) (\$300) Continue development of Mine Countermeasure Tactics.
- (U) (\$325) Continue to develop attack helicopter tactics.
- (U) (\$288) Continue to develop Hardkill Integration Tactics.
- (U) (\$270) Continue to develop Submarine Tactics for multiple warfare areas.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605155N PROJECT NUMBER: R0151
 PROGRAM ELEMENT TITLE: Fleet Tactical Development and Evaluation PROJECT TITLE: Intertype Tactical Development Integration

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996 President's Budget:	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
	4,332	2,620	3,128
(U) Adjustments from FY 1996 PRESBUDG:	0	-98	-130
(U) FY 1997 PRESBUDG Submit:	4,332	2,522	2,998

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 adjustment is due to the following: Congressional undistributed reductions (-58), revised DOD inflation estimates (-29), and a minor repricing (-11). FY 1997 changes result from revised DOD inflation estimates (-91) and minor repricings (-39).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

(U) PE 0603711N (Fleet Tactical Development)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605155N

PROGRAM ELEMENT TITLE: Fleet Tactical Development and Evaluation

PROJECT NUMBER: R0151

PROJECT TITLE: Intertype Tactical Development Integration

DATE: March 1996

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: Technical Information Services

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0835 Technical Information Services									
	2,019	1,965	1,725	1,833	2,145	2,197	2,247	CONT.	
S2257 Advanced Technical Information Systems (ATIS)	2,936	0	0	0	0	0	0	0	7,878
TOTAL	4,955	1,965	1,725	1,833	2,145	2,197	2,247	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides full support to achieve development affordability of Navy systems and reduction of life-cycle costs through the facilitation of advanced technology associations between U.S. industry and the Navy. These goals are met through the following:

- (U) Navy leverage of the industry independent research and development science and technology base by facilitation of voluntary Technical Information Meetings between Navy, DOD components, and the private sector.
- (U) Support for the Navy Acquisition and Development Center to provide the private sector with information on Navy research and development requirements and advanced acquisition information.
- (U) Transfer of appropriate Navy-developed innovative concepts and inventions to the private sector for purposes of commercialization (Public Law 96-480, Federal Technology Transfer Act of 1986) through Cooperative Research and Development Agreements and Cooperative Agreements through Offices of Research and Technology Applications.
- (U) Promotion of advanced information acquisition and distribution techniques (in conjunction with the Defense Technical Information Center) to disseminate research, development, and technology transfer efforts of Navy components, including the networking of Navy components' technology transfer databases (Scientific and Technical Information Program).
- (U) Support for controlled access to, and exchange of, scientific and technical information by Navy/DOD components and present/potential contractors (Navy Potential Contractor Program).

This program also provides the DON interface to Director, Defense Research and Engineering, Office of Technology Transition for matters relating to policy and DOD reporting requirements for technology transfer. In FY 1995 this program element funds the Advanced Technical Information Systems (ATIS) project. ATIS is a component of the U.S. Navy's approach for implementing

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: Technical Information Services

Computer-Aided Acquisition and Logistics Support technology and standards.

(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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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: Technical Information Services

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0835 Technical Information Services	2,019	1,965	1,725	1,833	2,145	2,197	2,247	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides full support to achieve development affordability of Navy systems and reduction of life-cycle costs through the facilitation of advanced technology associations between U.S. industry and the Navy. These goals are met through the following:

- (U) Navy leverage of the industry independent research and development (IR&D) science and technology base by facilitation of voluntary Technical Information Meetings between Navy, DOD components, and the private sector. The content of these meetings will focus on the acquisition programs which have significant impact on maintaining technical superiority while meeting affordability requirements.
- (U) Support for the Navy Acquisition Research and Development Center (NARDIC) to provide the private sector with information on Navy research and development (R&D) requirements and advanced acquisition information.
- (U) Transfer of appropriate Navy-developed innovative concepts and inventions to the private sector for purposes of commercialization (Public Law 96-480, Federal Technology Transfer Act of 1986), through Cooperative Research and Development Agreements (CRADAs) and Cooperative Agreements through Offices of Research and Technology Applications (ORTAs).
- (U) Promotion of advanced information acquisition and distribution techniques (in conjunction with the Defense Technical Information Center (DTIC)) to disseminate research, development, and technology transfer efforts of Navy components, including the networking of Navy components' technology transfer databases (Scientific and Technical Information Program (STIP)).
- (U) Support for controlled access to, and exchange of, scientific and technical information by Navy/DOD components and present/potential contractors (Navy Potential Contractor Program (NPCP)).

This program also provides the DON interface to Director, Defense Research and Engineering (DDR&E), Office of Technology Transition for matters relating to policy and DOD reporting requirements for technology transfer.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: Technical Information Services

PROJECT NUMBER: R0835

PROJECT TITLE: Technical Information Services

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$2,019) Coordinated IR&D technical information exchange between industry and the Navy activities; supported OSD in making Government advanced planning documentation available to industry; applied advanced data gathering/dissemination techniques to Industry IR&D plans (CD-ROMs, electronic bulletin boards); promoted IR&D technical information exchange meetings. Funded the NARDIC. Supported the Navy thrust in affordability of systems by facilitation of the transfer of appropriate Navy-developed discoveries and concepts to the private sector from where they can be commercialized.

2. (U) FY 1996 PLAN:

- (U) (\$1,961) Support Navy affordability thrust by identification of industry science and technology projects that have technical development cost savings as a primary attribute, while maintaining or improving performance capabilities. Identify key product and process activities to enable technology insertion for affordability of systems. Create industry partnerships that improve affordability of Navy systems while maintaining/improving their capabilities, using the CRADA as a primary mechanism. Utilize the NARDIC as a primary mechanism for information dissemination to the private sector and begin efforts to incorporate the NPCP agreements in the networked technology transfer system currently under development. Apply advanced information dissemination techniques to continue the improvement of the Navy STIP. Complete the network of technology transfer databases for Navy laboratories, ONR, and DOD. Initiate an in-depth study to assess cost effectiveness of the Navy technology transfer program.
- (U) (\$4) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$1,725) Expand coordination efforts with Systems Commands, Program Executive Offices, Direct Reporting Program Managers, and Navy laboratories and warfare centers to leverage industry research and development efforts to meet Navy performance/affordability needs and promote submission of technical data by the private sector to the DTIC CD-ROM in order to help integrate defense production with the commercial industrial base. Support the NARDIC

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605804N

PROJECT NUMBER: R0835

PROGRAM ELEMENT TITLE: Technical Information Services

PROJECT TITLE: Technical Information Services

as the primary outreach resource to the private sector. Using the CRADA and Cooperative Agreement mechanisms, help create industry partnerships that allow technology insertion through the use of Integrated Process Product Development. Put into operation the networked technology transfer and NPCP database capability at the laboratory, the Office of Naval Research, and DDR&E levels. Continue to improve the STIP database both in content and in level of usage by Government and/or Government-sponsored components, as part of the drive to reduce R&D costs of the Navy. Complete the in-depth study of cost effectiveness of the Navy technology transfer program.

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996 President's Budget:	1,762	2,027	1,946
(U) Adjustments from FY 1996 PRESBUDG:	+257	-62	-221
(U) FY 1997 PRESBUDG Submit:	2,019	1,965	1,725

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 increase reflects actual execution (+257). FY 1996 funding adjustment is due to the following: Congressional undistributed reductions (-39), and revised economic assumptions (-23). FY 1997 funding adjustment is due to the following: reduction to management support (-68), and DOD economic and repricing adjustments (-153).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: Technical Information
Services

PROJECT NUMBER: R0835

PROJECT TITLE: Technical Information
Services

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ACTUAL	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0115***SACLANT Anti-Submarine Warfare (ASW) Research Center	273	264	-0-	-0-	-0-	-0-	-0-	CONT.	CONT.
R0231* ASW System Support	1,594	0	-0-	-0-	-0-	-0-	-0-	-0-	-0-
R0905* Naval Warfare Tactical Analysis	2,588	0	-0-	-0-	-0-	-0-	-0-	-0-	-0-
R0149 International Cooperative RDT&E	1,215	1,702	1,861	1,928	2,275	2,327	2,379	CONT.	CONT.
R1767 Naval War College/Center for Naval Warfare Studies	1,134	1,961	1,628	1,648	1,666	1,691	1,720	CONT.	CONT.
R2146 Science/Eng. Exch Prog.	687	0	0	0	0	0	0	0	0
X1795* C3CM Decision Aid System	1,875	0	-0-	-0-	-0-	-0-	-0-	-0-	-0-
X2221* Assessment Program	0	11,179	12,717	13,214	13,136	13,435	13,766	CONT.	CONT.
X2222** Naval Modeling and Simulation	0	2,872	4,699	4,828	5,324	5,697	6,626	CONT.	CONT.
TOTAL	9,366	17,978	20,905	21,618	22,401	23,150	24,491	CONT.	CONT.

* Project X1991 (P.E. 0603763N) and Projects R0231, R0905, and X1795 (P.E. 0605853N) were consolidated into new project X2221 in FY 1996.

** Specific line item established for Naval Modeling and Simulation in FY 1996

***Funds transferred to Project R0149 in FY 1996

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

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) Project R0115 provided for the salary and administrative costs to maintain the U.S. scientific staff assigned to the Supreme Allied Commander Atlantic, Undersea Research Center (SACLANTCEN), La Spezia, Italy. Additionally, R0115 supported collaboration between U.S./SACLANTCEN scientists, the lease/loan of equipment, and the purchase of expendables to support the Centre's scientific program.

(U) Projects R0231, R0905, and X1795 provided analytical and management support for Planning and Programming. These projects supported the development of annual joint mission area assessments which provide the analytical underpinnings and basis for programmatic decisions by the Navy's top leadership.

(U) Project R0149 provided 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 were 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 resulted in:

- * (U) Development and negotiation of approximately 25 international RDT&E Memoranda of Understanding with allied and friendly nations.
- * (U) Management of over 300 information exchange agreements.
- * (U) Participation in armaments cooperation fora including the Conference of NATO Armaments Directors groups (e.g., the NATO Naval Armaments Group), Senior National Representative (SNR) consultation, and the Technical Cooperative Program.

(U) Project R1767 supports the Naval War College (NWC) in formulating and developing strategy and campaign alternatives. Under this project, the NWC provides continuing support to the Chief of Naval Operations Strategic Studies Group, the Center for Naval Warfare Studies, and other CNO, UNIFIED, and Fleet CINC projects in the area of multi-national cooperation and command, control, communications and intelligence.

(U) Project X2221 Funds were consolidated from Project X1991 (P.E. 0603763N) and Projects R0231, R0905, and X1795 (P.E. 0605853N) into this new project in FY 1996. Project X2221 provides analytical and management support for the Planning and Programming. This project supports the development of annual Joint Mission Support Area/Investment Balance Review assessments which provide the analytical underpinnings and basis for programmatic decisions made by the Navy's top leadership.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) Project X2222 provides the overarching policy, coordination and technical support for Naval modeling and simulation. This project responds to Congressional guidance to improve modeling and simulation 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 embedded training systems, and an orderly process of model Verification, Validation and Accreditation required by current directives.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: These programs are 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-2

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ACTUAL	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0149 International Cooperative RDT&E	1,215	1,702	1,861	1,928	2,275	2,327	2,379	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 with allied and friendly nations.
- * (U) Execution of over 300 information exchange agreements.
- * (U) Participation in armaments cooperation fora 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) Continued USN collaboration with NATO Supreme Allied Command Atlantic, Undersea Research Center
- * (U) Participation in the Engineer and Scientist Exchange Program (ESEP).

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT:

0605853N

PROGRAM ELEMENT TITLE: Management, Technical and
and International Support

PROJECT NUMBER: R0149

PROJECT TITLE: International Cooperative RDT&E

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

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1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$100) Supported DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
 - (U) (\$350) Supported 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 the on-going efforts to initiate/revise/terminate data exchange annexes (DEAs) to target new technologies and expand, where appropriate, to include exchanges with Former Soviet Union (FSU) countries.
 - (U) (\$500) Updated and maintained 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) (\$150) Provided support to the Tri-Service Project Reliance International Programs Subpanel in identifying and pursuing cooperative opportunities with allies in critical technology areas.
 - (U) (\$ 3) Maintained engineers and scientists who are assigned to foreign research facilities with critical technologies under the ESEP.
 - (U) (\$112) Funded the efforts of Systems Commands (SYSCOMs) and laboratories in researching and negotiating international cooperative programs.

2. (U) FY 1996 PLAN:

- (U) (\$100) Continue to support DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
- (U) (\$350) 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.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT:
PROGRAM ELEMENT TITLE:

0605853N
Management, Technical and
and International Support

PROJECT NUMBER: R0149

PROJECT TITLE: International Cooperative RDT&E

- (U) (\$500) 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) (\$ 99) Provide support to the Tri-Service Project Reliance International Programs Subpanel in identifying and pursuing cooperative opportunities with allies in critical technology areas.
- (U) (\$534) Maintain a 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) (\$106) Continue to fund the efforts of SYSCOMs and laboratories in researching and negotiating international cooperative programs.
- (U) (\$ 13) Portion of extamurual program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$100) Continue to support DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
- (U) (\$400) 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) (\$500) 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) (\$100) Provide support to the Tri-Service Project Reliance International Programs Subpanel in identifying and pursuing cooperative opportunities with allies in critical technology areas.
- (U) (\$500) Maintain 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) (\$ 81) Continue to fund the efforts of SYSCOMs and laboratories in researching and negotiating international cooperative programs.
- (U) (\$180) Continue to fund USN collaboration with NATO Supreme Allied Command Atlantic, Undersea Research Center (SACLANTCEN) in LaSpezia, Italy in the areas of anti-submarine warfare (ASW), mine countermeasures and littoral warfare research.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605853N PROJECT NUMBER: R0149
 PROGRAM ELEMENT TITLE: Management, Technical and International Support PROJECT TITLE: International Cooperative RDT&E

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996/97 President's Budget:	FY 1995	FY 1996	FY 1997
(U) Adjustments from FY 1996 PRESBUDG:	1,214	1,756	1,693
(U) FY 1997 PRESBUDG Submit:	+1	-54	+168
	1,215	1,702	1,861

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 funding decrease is due to the following: Undistributed Congressional Reductions (-34) and revised DOD inflation estimates (-20). FY 1997 funding increase is due to the following: Merging of the SACLANCEN program (formerly under project R0115) with International Cooperation RDT&D (+240); revised DOD inflation estimates (-56) and minor repricing adjustments (-16).

(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 Cooperative Testing

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605853N
 PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST: (Dollars in thousands)

PROJECT
NUMBER &

TITLE	FY 1995 Actual	FY 1996 ACTUAL	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R1767 Naval War College/Center for Naval Warfare Studies	1,134	1,961	1,628	1,648	1,666	1,691	1,720	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:

1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$550) Conducted strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC taskings in such areas as nuclear proliferation, multi-national cooperation options, U.N. Peacekeeping, Pacific Basin options, SECNAV/CNO POM, force structure and strategic games and commenced emergent FY 1995 taskings.
 - (U) (\$534) Conducted major wargames culminating in Global '95.
 - (U) (\$ 50) Provided for selected NWC students to conduct advanced research projects.
2. (U) FY 1996 PLAN:
 - (U) (\$1,275) Conduct strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC taskings in such areas as nuclear proliferation, multi-national cooperation options, U.N. Peacekeeping, Pacific Basin options, SECNAV/CNO POM, force structure and strategic games and commence emergent FY 1996 taskings.
 - (U) (\$ 609) Conduct major wargames culminating in Global '96.
 - (U) (\$ 56) Provide for selected NWC students to conduct advanced research projects.
 - (U) (\$ 21) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.
3. (U) FY 1997 PLAN:
 - (U) (\$ 901) Conduct strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC taskings in such areas as SECNAV/CNO POM, force structure and strategic games and commence emergent FY 1997 tasking.
 - (U) (\$ 669) Conduct major wargames culminating in Global '97.
 - (U) (\$ 58) Provide for selected NWC students to conduct advanced research projects.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT:

0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT NUMBER: R1767

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

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996/97 President's Budget:

FY 1995	FY 1996	FY 1997
<u>1,134</u>	<u>1,665</u>	<u>1,679</u>

(U) Adjustments from FY 1996 PRESBUDG:

+296 -51

(U) FY 1997 PRESBDUG Submit:

1,134 1,961 1,628

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 funding change results from undistributed Congressional reductions (-32), revised DOD inflation estimates (-17), and minor program changes (+345). FY 1997 funding changes reflects revised DOD inflation estimates (-49) and minor program repricing (-2).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605853N PROJECT NUMBER: R1767
PROGRAM ELEMENT TITLE: Management, Technical and PROJECT TITLE: Naval War College/Center for
International Support Naval Warfare Studies

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable

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BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ACTUAL	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X2221 Assessment Program	0	11,179	12,717	13,214	13,136	13,435	13,766	CONT.	CONT.

Project X1991 (P.E. 0603763N) and Projects R0231, R0905, and X1795 (P.E. 0605853N) were consolidated into project X2221 in FY 1996.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: X2221, Assessment Program consolidates analytical and management support to the Planning and Programming segments of the Navy Planning, Programming and Budgeting System (PPBS). This project supports the development of annual Joint Mission Area/Investment, Balance Review assessments which provide analytical underpinnings and basis for programmatic decisions made by the Navy's top leadership during the Planning and Programming phases of the PPBS process. This program provides the Navy input to the VCJCS lead Joint Warfighting Capability Assessment Process. Assessment program develops tools and analytical methodologies based on standards and technical recommendations as provided by the Naval Modeling and Simulation Program (X2222) and provides technical leadership for the analysis functional area of Naval Modeling and Simulation.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:
• (U) N/A

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X2221

PROGRAM ELEMENT TITLE: Management, Technical
and International Support

PROJECT TITLE: Assessment Program

2. (U) FY 1996 PLAN:
 - (U) (\$ 150) Develop, update and maintain detailed level of Navy Standard scenarios based on Defense Planning Guidance.
 - (U) (\$8,335) Perform Joint Mission Area/Support Area Assessments to support the Interactive Investment Balance Review process. Efforts include 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. Provide Navy input to JWCA process.
 - (U) (\$1,414) Continue to develop and accredit Joint Mission Area/Support Area tools and improve analytic methodology.
 - (U) (\$ 662) Using the standard simulation and database architecture developed by Naval Modeling & Simulation, rehost 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 databases architecture. Coordinate/support Joint Analytical Model Improvement Program (JAMIP).
 - (U) (\$ 498) Continue to research and implement essential fleet enhancements provided by CNO's Tactical Support Group.
 - (U) (\$ 120) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X2221

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT TITLE: Assessment Program

3. (U) FY 1997 PLAN:

- (U) (\$ 200) Develop, update and maintain detailed level 1 Navy Standard scenarios based on Defense Planning Guidance.
- (U) (\$8,798) Perform Joint Mission Area/Support Area assessments to support the interactive Investment Balance Review process. Efforts include 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. Provide Navy input to JWCA process.
- (U) (\$1,915) Continue to develop and accredit Joint Mission Area/Support Area tools and improve analytic methodology.
- (U) (\$1,804) Using the standard simulation and database architecture developed by Naval Modeling and Simulation, rehost 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:

- (U) FY 1996/1997 President's Budget:
- (U) Adjustments from PRESBUDG:
- (U) FY 1997 President's Budget:

<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
	11,730	10,388
	- 551	+2,329
	11,179	12,717

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X2221

PROGRAM ELEMENT TITLE: Management, Technical and
International Support

PROJECT TITLE: Assessment Program

(U) Funding: FY 1996 changes include Congressional undistributed reductions (-253) and revised DOD inflation estimates (-298). FY 1997 changes include revised DOD inflation estimates (-386), minor repricing adjustments (-485), and increased program requirements (+3,200).

(U) Schedule: Not applicable.

(U) Technical: Not applicable

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

(U) RELATED RDT&E: Not applicable

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

PROJECT

NUMBER &

TITLE

FY 1995
ACTUAL

FY 1996
ACTUAL

FY 1997
ESTIMATE

FY 1998
ESTIMATE

FY 1999
ESTIMATE

FY 2000
ESTIMATE

FY 2001
ESTIMATE

TO
COMPLETE

TOTAL
PROGRAM

X2222 Naval Modeling and Simulation
0 2,872

4,699

4,828

5,324

5,697

6,626

CONT.

CONT.

Specific line item for Naval Modeling and Simulation established in FY 1996

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: X2222, Naval Modeling and Simulation provides the overarching policy, coordination and technical support for Naval Modeling & Simulation. This project responds to Congressional guidance to improve modeling and simulation focus, coordination and oversight. It coordinates the development and execution of Naval M&S program, including distributed simulation tool development, M&S incorporation with C4I systems and embedded training systems, and an orderly process of model Verification, Validation and Accreditation required by current directives. This effort funds the Naval Modeling and Simulation Technical Support Group. This program leverages, assembles and consolidates program-specific Modeling and Simulation capabilities developed by Program Managers, Naval Warfare Centers, Laboratories, Federally Funded Research and Development Centers, and contractors. The increased use of Modeling and Simulation that results from this program are of significant benefit to training, acquisition, RDT&E and military operations.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

. (U) Specific line item for Naval Modeling and Simulation established in FY 1996

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT:

0605853N

PROGRAM ELEMENT TITLE: Management, Technical
and International Support

PROJECT NUMBER: X2222

PROJECT TITLE: Naval Modeling & Simulation

2. (U) FY 1996 PLAN:

- (U) (\$ 592) Full Naval participation in the development and implementation of Distributed Interactive Simulation Industry standards and the application of distributed simulation to a wide variety of operational, research and development, training, and test and evaluation exercises.
- (U) (\$ 630) Naval Policy, coordination and technical support. Funds the Naval Modeling & Simulation Technical Support Group, which provides: the Naval Modeling and Simulation Catalog, Master Plan, and Investment Strategy; technical support to PEOs/DRPMs/Program Managers/Warfare Centers/Labs; and Naval technical interface to Industry, Joint, DOD, and other Services activities.
- (U) (\$ 877) Development of the standard simulation and database architecture for Naval Modeling & Simulation. Rehost legacy models into the framework. Develop new models in the standard simulation and database architecture.
- (U) (\$ 384) Naval contribution to the Aggregate Level Simulation Protocol development including functional validation and Joint exercise participation. Includes improvements to the Naval Wargaming Models to permit appropriate Joint participation.
- (U) (\$ 384) Development of the Verification, Validation and Accreditation (VVA) process. Implementation of the VVA process on new Naval Modeling & Simulation developments and Navy legacy models.
- (U) (\$ 5) Portion of extramural program reserved for Small Business Innovation Research Assessment in accordance with 15 U.S.C.638.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT:

0605853N

PROGRAM ELEMENT TITLE: Management, Technical
and International Support

PROJECT NUMBER: X2222

PROJECT TITLE: Naval Modeling & Simulation

3. (U) FY 1997 PLAN:

- (U) (\$1,700) Full Naval participation in the development and implementation of Distributed Interactive Simulation Industry standards and the application of distributed simulation to a wide variety of operational, research and development, training, test and evaluation exercises.
- (U) (\$1,100) Naval Policy, coordination and technical support. Funds the Naval Modeling & Simulation Technical Support Group, which provides: annual updates to the Naval Modeling and Simulation Catalog, Master Plan, and Investment Strategy; continuing technical support to CEOs/DRPMs/Program Managers/Warfare Centers/Labs; and continuing Naval technical interface to Industry, Joint, DOD, and other services activities.
- (U) (\$1,084) Continue development of the standard simulation and database architecture for Naval Modeling and Simulation. Continued rehosting of legacy models into the framework and development of new models in the standard simulation and database architecture.
- (U) (\$ 408) Naval contribution to the Aggregate Level Simulation Protocol development including functional validation and Joint exercise participation. Includes improvements to the Naval Wargaming Models to permit appropriate Joint participation.
- (U) (\$ 407) Continue development of the Verification, Validation and Accreditation (VVA) process. Continue implementation of the VVA process on new Naval Modeling & Simulation development and Navy legacy models.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605853N PROJECT NUMBER: X2222
 PROGRAM ELEMENT TITLE: Management, Technical PROJECT TITLE: Naval Modeling & Simulation
 and International Support

B. (U) PROGRAM CHANGE SUMMARY:	
(U) FY 1996/97 President's Budget:	FY 1995
(U) Adjustments from PRESBUDG:	FY 1996
(U) FY 1997 President's Budget:	FY 1997
	4,949
	-2,077
	2,872
	5,015
	-316
	4,699

(U) Funding: FY 1996 changes include Congressional specific and undistributed reductions (-2,037), revised DOD inflation estimates (-34) and minor program repricing (-6). FY 1997 changes include revised DOD inflation estimates (-142) and minor repricing adjustments (-174).

- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.
- (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.
- (U) RELATED RDT&E:

Provides technical advise and assistance in the execution of M&S activities throughout DON

- D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

PROGRAM ELEMENT TITLE: RDT&E, N Science and Technology Management

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0104 NAVMED Management Support	7,550	6,649	5,095	5,220	5,357	5,497	5,639	CONT.	CONT.
R0135 ONR Science and Technology Management	53,257	51,275	52,203	51,531	50,549	51,737	53,005	CONT.	CONT.
X0832 Central Management Support	1,108	1,210	1,050	1,089	1,266	1,303	1,339	CONT.	CONT.
R1855 Science/Engineering Training Support	60	0	0	0	0	0	0	0	4,238
TOTAL	61,975	59,134	58,348	57,840	57,172	58,537	59,983	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program supports the Office of Naval Research (ONR), small non-overhead distributing Navy R&D activities, and medical research laboratories. It pays salaries, rent, utilities, printing, supplies, materials, and other day-to-day costs that are necessary to support these Navy activities that administer and execute the Navy's R&D program. The vast majority of these costs are fixed costs which primarily support scientists and engineers working on the Navy Science and Technology Program. For overhead distributing activities, this program covers costs not chargeable to overhead or to customers.

(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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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0104 NAVMED Management Support	7,550	6,649	5,095	5,220	5,357	5,497	5,639	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports certain program-wide management and operational costs at the Naval Medical Research and Development Command and specified Naval Medical Research Laboratories that do not distribute overhead. Funds are used for general administrative expenses including salaries of support personnel, centralized technical services, common support costs under host-tenant agreements, routine maintenance and repair of buildings and costs of laboratory support provided by other agencies/commands.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$7,550) Provided management support for operations at Naval Medical Research and Development Command Headquarters, three in-house laboratories and one detachment.
2. (U) FY 1996 PLAN:
 - (U) (\$6,649) Provide management support for operations at Naval Medical Research and Development Command Headquarters, three in-house laboratories and one detachment.
3. (U) FY 1997 PLAN:
 - (U) (\$5,095) Provide management support for operations at Naval Medical Research and Development Command Headquarters, three in-house laboratories and one detachment.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605861N DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management PROJECT NUMBER: M0104
 PROJECT TITLE: NAVMED Management Support

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996 President's Budget:	7,550	6,856	6,305
(U) Adjustment from PRESBUDG:	-0-	-207	-1,210
(U) FY 1997 President's Submit:	7,550	6,649	5,095

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 decreased due to Congressional inflation (-39) and general (-91) reductions; and revised DoD economic assumptions (-77). Funding changes in FY 1997 include a reduction based on a realization of economies (-1,154); revised DoD inflation estimates (-79); and minor pricing adjustments (+23).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) Related RDT&E:

(U) PE 0605862N (RDT&E,N Instrumentation Modernization) Funds investment items and general purpose equipment for activities supported by this project. All Navy medical research and development programs receive central management support under program element 0605861N.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605861N
PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0135 ONR Science and Technology Management	53,257	51,275	52,203	51,331	50,549	51,737	53,005	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the Office of Naval Research (ONR) management and direction for the entire Navy Science and Technology program. ONR sponsors scientific advances which benefit all Joint Mission Areas/Support Areas, including Joint Strike and Joint Littoral Warfare, and supports the fleet's ability to operate from a position of technological superiority. Functions performed include: (1) scientific and technical direction of the nationwide Category 6.1 basic research program with colleges, universities, and Navy laboratories and warfare centers; (2) scientific and technical direction of the 6.2 applied research program through the Navy's R&D laboratories and warfare centers and industry; (3) scientific and technical direction of the Navy advanced technology development program (Category 6.3) through the Navy Systems Commands, laboratories, warfare centers and industry; (4) management, resource formulation, program assessment, and contract negotiation/administration of the Navy basic research, applied research and advanced technology development program; (5) program management and administrative support to selected research programs of Ballistic Missile Defense Organization (BMDO), Advanced Research Projects Agency (ARPA), and Chief of Naval Operations (CNO); and (6) coordination of the Navy's Technology Base program within the context of total DoD/Government (e.g., National Science Foundation, National Academy of Sciences) R&D initiatives in order to maximize scientific advances. This project also supports ONR management and direction for the following Navy-wide programs: Small Business Innovation Research (SBIR), Naval Research Advisory Committee, Navy Patent Program, Navy Historically Black Colleges and Universities Program, Navy Manufacturing Technology Program and the SSBN Survivability Program. In addition, this program supports ONR's Navy-wide responsibilities in the negotiation and establishment of indirect cost rates for DoD-assigned universities and performance of contract administration for all DoD contracts/grants at all colleges and universities. This project funds salaries, rent, utilities, supplies, and other fixed costs at ONR Headquarters and field offices.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605861N DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E, N Science and PROJECT NUMBER: R0135
 Technology Management PROJECT TITLE: ONR Science & Technology Management

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) ● FY 1995 ACCOMPLISHMENTS:
 (U) (\$53,257) The project provided for basic costs of the ONR headquarters and its field activities in support of the entire Navy Science and Technology program. Specifically, it paid the salaries of scientific and engineering personnel who direct the execution of the Navy's basic research (Category 6.1), applied research (Category 6.2), and advanced technology development (Category 6.3) programs at the nation's universities/colleges, Navy laboratories and warfare centers, and private industry. In addition to its Navy Science and Technology mission, ONR provided important program management and administrative support to BMDO, ARPA, and CNO. Almost all the funds in this project are fixed costs, such as salaries, building rent, communications, etc. The project provided support for the ONR headquarters, the ONR European Office (London), the ONR Asian Office (Tokyo), and field detachments.
2. (U) ● FY 1996 PLAN:
 (U) (\$51,275) The project continues to provide for basic costs of the ONR headquarters and its field activities in support of the entire Navy Science and Technology program. Specifically, it pays the salaries of scientific and engineering personnel who direct the execution of the Navy's basic research (Category 6.1), applied research (Category 6.2), and advanced technology development (Category 6.3) programs at the nation's universities/colleges, Navy laboratories and warfare centers, and private industry. In addition to its Navy Science and Technology mission, ONR provides important program management and administrative support to BMDO, ARPA, and CNO. Almost all the funds in this project will be fixed costs, such as salaries, building rent, communications, etc. The project continues to provide support for the ONR headquarters, the ONR European Office (London), the ONR Asian Office (Tokyo), and field detachments.
3. (U) ● FY 1997 PLAN:
 (U) (\$52,203) The project will continue to provide for basic costs of the ONR headquarters and its field activities in support of the entire Navy Science and Technology program. Specifically, it will pay the salaries of scientific and engineering personnel who direct the execution of the Navy's basic research (Category 6.1), applied research (Category 6.2), and advanced technology development (Category 6.3) programs at the nation's universities/colleges, Navy laboratories and warfare centers, and private industry. In addition to its

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605861N PROJECT NUMBER: R0135 DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management PROJECT TITLE: ONR Science & Technology Management

Navy Science and Technology mission, ONR will provide important program management and administrative support to BMDO, ARPA, and CNO. Almost all the funds in this project will be fixed costs, such as salaries, building rent, communications, etc. The project will continue to provide support for the ONR headquarters, the ONR European Office (London), the ONR Asian Office (Tokyo), and field detachments.

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996 President's Budget:	53,531	52,898	52,136
(U) Adjustments from PRESBUDG:	-274	-1,623	67
(U) FY 1997 President's Submit:	53,257	51,275	52,203

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 funding changes include an increase to program requirements (+26) and a reduction to fund the FY 1995 Ship Cost Adjustment (-300). FY 1996 funding change is due to Civilian Personnel pricing adjustment (-11); Congressional inflation (-301) and general (-705) reductions; and revised DoD economic assumptions reduction (-606). FY 1997 funding change is due to BRAC IV restoral (+513); Civilian Personnel pricing adjustment (-24); revised DoD inflation estimates (-397); and military and civilian pay reduction (-25).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) Related RDT&E:

(U) Program Element 0605862N (RDT&E,N Instrumentation Modernization) Funds investment items for the activities covered in this project.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0832 Central Management Support	1,108	1,210	1,050	1,089	1,266	1,303	1,339	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports centrally managed inter-warfare center and corporate laboratory projects such as the Federation of Systems Analysis Directors (FOSAD), support for standardizing business and technical practices, improved communications, joint planning, and other emerging issues which cut across the Navy Warfare Centers and Corporate Laboratory. This project is managed by the Navy Laboratory/Center Coordinating Group (NLCCG). Funds are used for the oversight and support of system evaluations and concept investigations, planning for cross warfare center/laboratory video teleconferencing (VTC), maintenance and expansion of corporate databases and historical archives, preparation and review of the Navy's annual Management Briefs as well as other resource documentation, and reports on corporate issues involving capital investment planning, technical program structure and business plans.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$185) Provided oversight and support of system evaluations and concept investigations.
 - (U) (\$200) Planned and coordinated cross warfare center/laboratory VTC and communication networks.
 - (U) (\$150) Maintained and expanded corporate data bases and historical archives.
 - (U) (\$100) Maintained corporate contract vehicle for structural analyses.
 - (U) (\$150) Prepared and reviewed recurring corporate reports (e.g., management briefs, statistical and biographical data document).
 - (U) (\$100) Developed common approach for updating access to technical information across warfare centers/NRL.
 - (U) (\$9) Provided support for a security working group (publications re standardization, cost saving practices).
 - (U) (\$214) Provided staff for oversight, coordination and reports for corporate issues involving capital investment planning, technical program structure, policy guidance, uniform business practices and business plans (e.g., defense conversion, business divestitures, joint initiatives, preservation of core capabilities, and coordination with universities and industries).

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605861N PROJECT NUMBER: X0832 DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management PROJECT TITLE: Central Management Support

2. (U) FY 1996 PLAN:
 - (U) (\$85) Provide oversight and support of system evaluations and concept investigations.
 - (U) (\$200) Plan and coordinate cross warfare center/laboratory VTC and communication networks.
 - (U) (\$190) Maintain and expand corporate data bases and historical archives.
 - (U) (\$100) Maintain corporate contract vehicle for structural analyses.
 - (U) (\$150) Prepare and review recurring corporate reports (e.g., management briefs/statistical and biographical data document).
 - (U) (\$150) Provide support for adoption of common approach to technical information access across warfare centers/NRL.
 - (U) (\$9) Support for a security working group (publications re standardization, cost saving practices).
 - (U) (\$326) Provide staff for oversight, coordination and reports for corporate issues involving capital investment planning, technical program structure, policy guidance, uniform business practices and business plans (e.g., defense conversion, business divestitures, joint initiatives, preservation of core capabilities, and coordination with universities and industries).
3. (U) FY 1997 PLAN:
 - (U) (\$100) Provide oversight and support of system evaluations and concept investigations.
 - (U) (\$150) Plan and coordinate cross warfare center/laboratory VTC and communication networks.
 - (U) (\$250) Maintain and expand corporate data bases and historical archives.
 - (U) (\$100) Maintain corporate contract vehicle for structural analyses.
 - (U) (\$100) Provide support for adoption of common approach to technical information access across warfare centers/NRL.
 - (U) (\$10) Support for a security working group (publications re standardization, cost saving practices).
 - (U) (\$20) Prepare and review recurring corporate reports (e.g., management briefs, statistical and biographical data document).
 - (U) (\$320) Provide staff for oversight, coordination and reports for corporate issues involving capital investment planning, technical program structure, policy guidance, uniform business practices and business plans (e.g., defense conversion, business divestitures, joint initiatives, preservation of core capabilities, and coordination with universities and industries).

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605861N DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management PROJECT NUMBER: X0832
 PROJECT TITLE: Central Management Support

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996 President's Budget:	<u>FY 1996</u>	<u>FY 1997</u>
	1,108	1,130
(U) Adjustments from PRESBUDG:	-0-	-37
(U) FY 1997 President's Submit:	1,108	1,050

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 funding decreased due to Congressional inflation (-7) and general (-16) adjustments; and revised DoD economic assumptions reduction (-14). FY 1997 funding decreases for minor pricing adjustments (-80).
 (U) Schedule: Not applicable.
 (U) Technical: Not applicable.

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

(U) Related RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

PROGRAM ELEMENT TITLE: RDT&E,N Science and

DATE: March 1996

PROJECT NUMBER: X0832

PROJECT TITLE: Central Management Support

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0105	NAVME Instrumentation and Material Support								
	4,421	3,422	1,974	2,817	2,799	2,777	2,760	CONT.	CONT.
R0137	ONR Science & Technology Instrumentation Modernization								
	1,548	1,059	1,041	1,072	1,252	1,279	1,309	CONT.	CONT.
S0353	NAVSEA Instrumentation and Material Support								
	716	0	0	0	0	0	0	0	23,889
W0566	NAVAIR Environmental Compliance								
	5,273	7,035	3,181	5,398	4,416	4,650	4,213	CONT.	CONT.
L2149	NPRDC Instrumentation and Material Support								
	593	0	0	0	0	0	0	0	1,726
TOTAL	12,551	11,516	6,196	9,287	8,467	8,706	8,282	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element funds investment costs at certain Navy research, development, test, and evaluation laboratories and facilities. These laboratories and other facilities are involved in diverse activities such as: medical research including research of new methods of combat casualty care; energy conservation; weapons testing; and a number of other programs. This program provides for research equipment in support of multiple program requirements at the Medical Research laboratories, supports environmental protection and energy conservation projects at Naval Air Warfare Center facilities, and provides equipment for the Office of Naval Research (ONR) headquarters and field offices/detachments.

(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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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM CONT.
M0105 NAVMED Instrumentation and Material Support	4,421	3,422	1,974	2,817	2,799	2,777	2,760	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This continuing modernization effort funds the procurement of new and replacement general purpose analytical and research support equipment, facility repairs, minor construction, alterations, equipment installation, and first destination transportation cost of newly purchased equipment for the Naval Medical Research and Development Command Headquarters, eight Medical Research laboratories, and three detachments.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$2,232) Provided technologically advanced research equipment and replacement of obsolete equipment for data acquisition, automated sampling, and real time statistical analysis of biomedical research data utilizing the database information systems integral with new equipment.
- (U) (\$2,189) Provided repairs to facilities to meet safety and habitability requirements, minor construction/alteration, and renovation to preserve structural integrity to meet research mission.

2. (U) FY 1996 PLAN:

- (U) (\$2,039) Continue to provide support for replacement of obsolete research equipment and to provide for the investment in technologically advanced equipment to support existing and emerging research missions.
- (U) (\$1,366) Continue to provide support to physical plant facility areas needing major repair, minor construction, rehabilitation to meet mission requirements as well as meeting environmental compliance and pollution abatement standards.
- (U) (\$17) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C.638.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N PROJECT NUMBER: M0105 DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E, N Instrumentation PROJECT TITLE: NAVMED Instrumentation and Material Support
 Modernization

4. (U) FY 1997 PLAN:
- (U) (\$1,041) Continue to provide new cutting edge research equipment and timely replacement of obsolete equipment too costly to repair and maintain.
 - (U) (\$933) Continue to provide major facility repair, minor construction, alteration to existing facilities to preserve structural integrity and meet safety and habitability requirements capable of supporting research missions.

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996 President's Budget:	4,178	3,530	3,174
(U) Adjustments from PRESBUDG:	243	-108	-1,200
(U) FY 1997 President's Budget Submit:	4,421	3,422	1,974

(U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: FY 1995 change reflects increased program requirements (+243). FY 1996 funding decreased due to Congressional inflation (-20) and general (-47) reductions; and revised DoD economic assumptions reductions (-41). FY 1997 funding changes include a reduction based on a realization of economies (-378); DBOF Public Works Center rate adjustment (+37); reduced program requirements (-800); and revised DoD inflation estimates (-59).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N PROJECT NUMBER: M0105 DATE: March 1996
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation PROJECT TITLE: NAVMED Instrumentation
Modernization and Material Support

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

(U) Related RDT&E:

(U) Program Element 0605861N, RDT&E,N Science and Technology Management and Navy medical research and development programs.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6
PROGRAM ELEMENT: 0605862N
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0137 ONR Science & Technology Instrumentation Modernization	1,548	1,059	1,041	1,072	1,252	1,279	1,309	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project purchases ADP and general support equipment for the Office of Naval Research (ONR) headquarters, foreign field offices, and nationwide field detachments.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$1,548) Purchased ADP and general support equipment for ONR headquarters and field offices/detachments.

2. (U) FY 1996 PLAN:

- (U) (\$1,036) Will purchase ADP and general support equipment for ONR headquarters, foreign field offices, and nationwide field detachments.
- (U) (\$23) Portion of extramural program reserved for Small Business Innovation assessment in accordance with 15 U.S.C.638.

3. (U) FY 1997 PLAN:

- (U) (\$1,041) Will purchase ADP and general support equipment for ONR headquarters, foreign field offices, and nationwide field detachments.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N PROJECT NUMBER: R0137 DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization PROJECT TITLE: ONR Science & Technology Instrumentation Modernization

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996 President's Budget:	1,574	1,091	1,072
(U) Adjustments from PRESBUDDG:	-26	-32	-31
(U) FY 1997 President's Budget Submit:	1,548	1,059	1,041

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 change reflects decreased program requirements (-26). FY 1996 funding decreased due to Congressional inflation (-6) and general (-14) reductions; and revised DoD economic assumptions (-12). FY 1997 funding decreased due to a revised DoD inflation estimate (-31).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) Related RDT&E:

(U) PE 0605861N, RDT&E,N Science and Technology Management, and Navy R&D science and technology programs.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM	CONT.
W0566 NAVAIR Environmental Compliance	5,273	7,035	3,181	5,398	4,416	4,650	4,213	CONT.		CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This continuing project supports environmental compliance and pollution prevention related efforts at the Navy Major Range Test Facility Bases (MRTFB). The Navy MRTFB environmental projects include ongoing efforts to comply with Federal, State, and local environmental requirements.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$1,464) Continued environmental compliance efforts in various buildings and sites throughout Navy owned and operated MRTFB facilities. Continued PCB repair and replacement efforts. Removed and replaced aging and deteriorating underground fuel storage tanks. Undertook assessment of fuel and hazardous material storage and containment requirements at MRTFB facilities.
- (U) (\$3,809) Restore MRTFB core range capabilities, repair vessels and technical equipment, minor construction facilities replacements, maintenance contracts and correction of environmental compliance problems.

2. (U) FY 1996 PLAN:

- (U) (\$3,360) Continue replacing aging and deteriorating underground fuel storage tanks at MRTFB facilities. Continue PCB replacement projects. Perform ozone depleting substance replacement and retrofit projects and a nitrogen oxide reduction studies. Prepare and implement various endangered species risk management plans. Provide asbestos studies and removal and disposal of contamination at MRTFB facilities. Perform pipeline leak detection, oil and water separator inspection.
- (U) (\$3,599) Restore MRTFB core range capabilities, repair vessels and technical equipment, minor construction facilities replacements, maintenance contracts and correction of environmental compliance problems.
- (U) (\$76) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C.638.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N

PROJECT NUMBER: W0566

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation
ModernizationPROJECT TITLE: NAVAIR Environmental
Compliance

3 (U) FY 1997 PLAN:

- (U) (\$3,181) Continue FY-96 programs for environmental and energy conservation at MRTFB facilities. Perform underground storage tank monitoring and remediation projects, and hazardous waste disposal. Provide cleanup of oil spills; alleviate illicit discharges; studies and removal and disposal; unexploded ordnance cleanup and removal of lead. Provide various waste water pretreatment options to MRTFB facilities and perform endangered species inventories.

(U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996 President's Budget:	1,466	3,657	3,843
(U) Adjustments from PRESBUDG:	3,807	3,378	-662
(U) FY 1997 President's Budget Submit:	5,273	7,035	3,181

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 change reflects an increase in program requirements (-3,807). FY 1996 reflects increased MRTFB program requirements (3,599); Congressional inflation (-41) and general (-96) reductions; and revised DoD economic assumptions (-84). Changes in FY 1997 consist of an increase to environmental compliance, cleanup, and pollution prevention projects (1,805); reduction for poor expenditure performance in prior years (-800); minor pricing adjustments (-94); revised DoD inflation estimates (-96); and a reduction in program requirements (-1,477).

(U) Schedule: Not applicable.

(U) Technical: Several environmental projects at the Naval Air Warfare Center Weapons Division to correct environmental and safety inspection deficiencies will be eliminated. The Naval Air Warfare Weapons Division will delay planned projects which would bring Point Mugu and China Lake into compliance with environmental laws and regulations.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605862N PROJECT NUMBER: W0566 DATE: March 1996
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation PROJECT TITLE: NAVAIR Environmental Compliance
Modernization

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

(U) Related RDT&E:

(U) Program Element (PE) 0605864N, Test and Evaluation Support; PE 0604256N, Threat Simulator Development;
PE 0604258N, Target Systems Development; and PE 0604759N, Major Test and Evaluation Investment.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation
Modernization

PROJECT NUMBER: W0566

PROJECT TITLE: NAVAIR Environmental
Compliance

DATE: March 1996

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N
PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
S0354 RDT&E Ships Support	14,754	12,126	13,034	13,488	14,088	14,172	14,055	CONT.	CONT.
W0568 RDT&E Aircraft Flight Hours	11,327	10,353	5,903	9,138	10,789	11,035	11,241	CONT.	CONT.
W0569 RDT&E Aircraft Support	54,443	37,436	31,411	41,755	48,205	48,534	48,425	CONT.	CONT.
TOTAL	80,524	59,915	50,348	64,381	73,082	73,741	73,721	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This continuing program provides support for ships and platforms required to accommodate Research, Development, Test and Evaluation (RDT&E) of new systems. The RDT&E ship and aircraft inventory is required to adequately test new and improved weapon systems, stay current with threats, and increase warfighting capability of the fleet. The program provides integrated logistics support for aircraft at selected field activities; provides depot-level rework of aircraft, engines, components for the Navy inventory of RDT&E aircraft; and provides support ships and aircraft bailed to contractors for Navy RDT&E projects. Costs covered under this element include aircrew training and proficiency, fuel, supplies, equipment, modification, repair, Aviation Depot Level Repairables, Special Flight Test Instrumentation Pool equipment, overhaul of ships and aircraft, as well as Organizational, Intermediate, and Depot maintenance of ships and aircraft in the Navy RDT&E inventory.

(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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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
S0354 RDT&E Ships Support	14,754	12,126	13,034	13,488	14,088	14,172	14,055	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: S0354, RDT&E Ships Support. This project provides for operation and maintenance of platforms used as Sea Based Test Sites in support of the Navy Research, Development, Test, and Evaluation (RDT&E) program. These are the USS DOLPHIN (AGSS-555) and the Floating Instrumentation Platform (FLIP). EX-USS DECATUR (DDG-31) is being supported by this line as the Self-Defense Test Ship (SDTS). Testing aboard these platforms reduces the number of fleet units required to support RDT&E efforts. In the case of the SDTS, it provides the capability of testing self defense weapons systems to within their minimum ranges. A major cost of this project is regularly scheduled ship maintenance. The USS DOLPHIN (AGSS-555) completed a regular overhaul during FY 94 and is beginning a phased maintenance program. The remainder of the funds are used for purchase of supplies and equipment, fuel and petroleum products, repairs, and supporting modifications. Most costs are fixed and are associated with simply having these platforms in the inventory. A lesser portion of the costs varies with the tempo and type of ship operations and provides for systems improvements and replacement planning. The nature of the operation is determined by the overall Navy/DOD R&D testing program.

(U) USS DOLPHIN will support live fire lethality testing and system operability testing of the MK 50, MK 46, and MK 37 torpedoes. In addition, the SEAWOLF Material Qualification Program, Surface Ship Torpedo Defense, and the Advanced Sea/Air/Land (SEAL) Delivery Program mobile inshore warfare unit and the sea based weapons and test school are supported by USS Dolphin testing.

(U) The current and projected Anti-Ship Cruise Missile (ASCM) threat require self-defense weapons systems capable of adequately countering ASCMs into the year 2000. The National Defense Authorization Act for FY 87, section 910, "Testing of Certain Weapons System and Munitions," requires live-fire lethality testing of manned weapons systems. Operational and safety constraints limit realistic live-fire lethality testing with U.S. Navy ships and thus drives the requirement for having an afloat, unmanned, remotely controlled SDTS. EX-USS DECATUR has been converted to the SDTS. SDTS plans call for testing Close-In-Weapons System (CIWS), North Atlantic Treaty Organization (NATO) Sea Sparrow Missile System (NSSMS), Ship

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N
PROJECT NUMBER: S0354
PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Ships Support

Self-Defense System (SSDS), Rolling Airframe Missile (RAM), SLQ-32(V3), and future short range Anti-Air Warfare systems against realistic threat presentations in an at-sea environment.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$9,954) USS DOLPHIN continued to support MK 50 Program Testing and SEAWOLF/Attack Submarine material evaluations. USS DOLPHIN supported near ocean bottom operations and other RDT&E programs; modeling sonar propagation; and testing Unmanned Underwater Vehicles (UUVs), sensors, Thermo Electric Air Conditioning (TEAC) systems, and communications systems. Continued support for AN/BQS-15 EC 17 testing for SSN 688 installation, supporting several laser imaging programs and the Advanced SEAL Delivery System (ASDS). USS DOLPHIN conducted periodic phased maintenance to maintain certification and procured material to support continued operations. Began performance of depot-level maintenance on a continuous basis vice regular periodic overhauls. This phased maintenance approach allows level funding of this project and avoids funding spikes of \$30M in the fiscal year of a periodic overhaul.
- (U) (\$2,901) FLIP continued to conduct research in underwater acoustic and non-acoustic phenomena to support anti-submarine warfare surveillance and weapons needs and ocean technology development. Reduced scope overhaul package for FLIP, including structural repairs and safety and environmental modifications to meet the requirements of the Code of Federal Regulations, were accomplished. Initiated efforts to dispose of the Oceanographic Research Buoy (ORB).
- (U) (\$1,899) Ex-USS DECATUR/SDTS conducted live fire operations at Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV) Point Mugu CA as required to support RAM, CIWS, NSSMS, and other self defense systems. Naval Surface Warfare Center Division (NAVSURFWARCENDIV) Port Hueneme CA planned, scheduled, and performed combat systems operations and maintenance on board the SDTS. The SPQ-9(B), RAM, CIWS Development and operational testing were conducted on SDTS. CIWS Developmental Testing was validated.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: S0354

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Ships Support

2. (U) FY 1996 PLAN:

- (U) (\$9,034) USS DOLPHIN continues to support MK 50 Torpedo Program testing and SEAWOLF/New Nuclear Submarine material evaluations. At-sea testing and environmental surveys are planned for the National Oceanic and Atmospheric Administration (NOAA) National Undersea Research Program. Continued support for ocean bottom operations and other RDT&E programs, including the Lightweight Broad Band Variable Depth Sonar, sea floor mapping, testing UUVs, testing sensors, TEAC systems and communications systems is planned. ASDS Sub-system testing begins. AN/BOS-15 EC-17 sonar testing concludes. USS DOLPHIN conducts periodic phased maintenance to maintain certification and procures material to support continued operations. A Restricted Availability (RAV1) is scheduled as part of the phased maintenance program with fifteen to twenty percent (15-20 percent) of planned maintenance deferred to the out years.

- (U) (\$550) FLIP continues to conduct undersea acoustic research relevant to anti-submarine warfare with emphasis on the shallow water environment. Additionally, the FLIP will be employed in support of geophysics, meteorology, physical oceanography, and non-acoustic anti-submarine warfare. Drydock inspection may be scheduled dependent on the number of at-sea hours accumulated. Complete disposal of ORB.

- (U) (\$2,500) Ex-DECATUR/SDTS conducts live fire operations at NAVAIRWARCENWPNDIV Point Mugu CA. Primary testing planned is the CIWS, but testing of other self defense systems including the RAM and NSSMS may also be scheduled. NAVSURFWARCENDIV Port Hueneme CA plans, schedules, and performs combat systems operations and maintenance on board the SDTS. The NSSMS (RIM 7R) Follow on Test and Evaluation (FOT&E) is conducted on the SDTS.

- (U) (\$42) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$10,334) USS DOLPHIN continues to provide New SSN material program testing, Surface Ship Torpedo Defense, and sea floor bottom mapping for Advanced Research Project Agency (ARPA). In addition, Lightweight Broadband Variable Depth Sonar testing will continue as well as testing of ASDS. USS DOLPHIN will continue to support near ocean bottom operations and other RDT&E programs, modeling sonar propagation, UUVs, testing sensors and communication

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: S0354

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Ships Support

systems. USS Dolphin conducts periodic phased maintenance to maintain certification and procures material to support continued operations. Continue phased maintenance. Defer 15 percent of planned maintenance to out years.

- (U) (\$700) FLIP continues to conduct research in underwater acoustic and non-acoustic phenomena to support ASW surveillance and weapons needs and ocean technology development. Drydock inspection may be scheduled depending on the number of at-sea hours accumulated.

- (U) (\$2,000) Ex-DECATUR/SDTS conducts live fire operations at NAVAIRWARCENWPNDIV Point Mugu CA. Live Fire testing planned includes the CIWS, the RAM, the Evolved Sea Sparrow Missile ESSM, and the SSDS. In addition, non-live fire testing is planned for the Electro Thermal Chemical (ETC) Weapon. NAVSURFWARCEMDIV Port Hueneme CA plans, schedules, and performs combat systems operations and maintenance on board SDTS.

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996/1997 President's Budget:	14,754	12,760	12,984
(U) Adjustments from PRESBUDG:	0	-634	+50
(U) FY 1997 President's Budget Submit:	14,754	12,126	13,034

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 reflects decrease of \$250 for Major Range Test Facility Base adjustment; \$237 for Congressional undistributed general and inflation reductions; and \$147 for revised DoD inflation rates and other minor pricing adjustments. FY 1997 reflects an increase of \$1,900 for DOLPHIN phased maintenance adjustment; a decrease of \$327 for reduced ship support; a decrease of \$410 for depot maintenance adjustment; a decrease of \$705 for Defense Business Operating Fund adjustment; and \$408 for revised inflation estimates and other minor pricing adjustments.

(U) Schedule: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N PROJECT NUMBER: S0354
PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Ships Support

(U) Technical: Not applicable.

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

(U) RELATED RDT&E:

- (U) PE 0604755N: NATO Sea Sparrow and CIWS (Phalanx)
- (U) PE 0602314N: Undersea Surveillance and Weapons Technology (FLIP) (USS DOLPHIN)
- (U) PE 0602435N: Oceanographic and Atmospheric Technology (RL3B, OT3B)
- (U) PE 0602111N: Surface/Aerospace Surveillance and Weapons Technology (ORIA)
- (U) PE 0603226E: Unmanned Underwater Vehicles (USS DOLPHIN)
- (U) PE 0604610N: Lightweight Torpedo Development (USS DOLPHIN)

D. (U) SCHEDULE PROFILE: Not applicable.

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DATE: March 1996

FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N PROJECT NUMBER: S0354
 PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Ships Support

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. USS DOLPHIN	9,924	9,004	10,304
b. FLIP	2,901	550	700
c. SDTS	1,899	2,500	2,000
d. Travel	30	30	30
e. SBIR		42	
Total	14,754	12,126	13,034

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N PROJECT NUMBER: S0354
 PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Ships Support

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Product Development										
Naval Shipyard Mare Island CA	WR	Various	32,248	32,248	32,248	0	0	0	0	32,248
Naval Shipyard Portsmouth VA	WR	Various	CONT.	CONT.	2,872	0	5,970	7,212	CONT.	CONT.
Naval Command, Control and Ocean Surveillance Center	WR/RQ	Various	CONT.	CONT.	2,000	5,339	1,985	1,823	CONT.	CONT.
University Univ-Grant of Texas, Arlington TX	Various	Various	5,883	5,883	4,160	1,723	0	0	5,883	5,883
Naval Surface Warfare Center/Port Hueneme	WR	Various	CONT.	CONT.	14,797	1,899	2,386	2,309	CONT.	CONT.
Office of Naval Research	Reqn	Various	CONT.	CONT.	6,226	2,901	763	750	CONT.	CONT.
Other Contractors	Various	Various	CONT.	CONT.	2,696	552	782	763	CONT.	CONT.
Other. Gov.	WR/Reqn	Various	CONT.	CONT.	6,404	2,340	198	177	CONT.	CONT.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: S0354

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Ships Support

Support and Management - Not applicable.

Test and Evaluation - Not applicable.

GOVERNMENT FURNISHED PROPERTY - Not applicable.

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	71,403	14,754	12,084	13,034	CONT.	CONT.
Subtotal Support and Management						
Subtotal Test and Evaluation						
SBIR Assessment			42			
Total Project	71,403	14,754	12,126	13,034	CONT.	CONT.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

(U) COST: (Dollars in Thousands)

PROJECT

NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0568 RDT&E Aircraft Flight Hours	11,327	10,353	5,903	9,138	10,789	11,035	11,241	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: W0568, RDT&E Aircraft Flight Hours. This non-acquisition project supports direct flight hour costs, including organizational and intermediate level maintenance, as well as associated consumables, including petroleum, oil, and lubricants (POL). These flight hours are used for aircrew training, the accomplishment of pilot proficiency requirements (approximately 3 hours per pilot per month), transition to new aircraft types, and support of Research and Development programs at four Naval Air Systems Command/Naval Surface Warfare Center/Office of Naval Research (NAVAIR/NWSC/ONR) activities. Annual flight simulator training for Navy Air Warfare Center (NAWC) activities, as well as pilot/Naval Flight Officer (NFO) Standardization and Instrument check flights for Navy personnel assigned to Defense Logistics Agency (DLA) activities, are also supported.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$11,327) Met training/proficiency and project flight hour requirements. Provided organizational and intermediate-level maintenance, supply, and POL in support of RDT&E aircraft operations. Transition and reduction of aircraft and aircrew in response to downsizing of RDT&E aircraft inventory occurred, with resultant savings in FY96. Supported annual flight simulator training program. Integration of aircraft/aircrew from Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV) Warminster PA to NAVAIRWARCENACDIV Patuxent River MD due to Base Realignment and Closure (BRAC) II completed.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0568

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Flight Hours

2. (U) FY 1996 PLAN:

- (U) (\$10,337) Continue to meet training/proficiency, and project flight hour requirements. Continue to provide organizational and intermediate-level maintenance, supply, and POL in support of RDT&E aircraft operations. Transition and reduction of aircraft and aircrew in response to downsizing of RDT&E aircraft inventory will continue to occur. Continue to support the annual flight simulator training program. Initiate support of pilot/(NFO) check flights for DLA activities in accordance with a Tri-Service Letter of Agreement.
- (U) (\$16) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$ 5,903) Minimally support training/proficiency flight hour requirements.

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996/1997 President's Budget:	11,307	10,680	9,967
(U) Adjustments from PRESBUDG:	20	-327	-4,064
(U) FY 1997 President's Budget Submit:	11,327	10,353	5,903

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0568

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Flight Hours

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 reflects an increase of \$20 thousand for minor pricing adjustments. FY 1996 reflects decrease of \$202 thousand for Congressional undistributed general and inflation reductions; and \$125 thousand for revised DoD inflation rates and minor pricing adjustments. FY 1997 reflects an increase of \$1,020 thousand for SECNAV decision to restore funds; decreases of \$2,738 thousand Defense Business Operating Funds adjustment; \$1,673 thousand for Major Range Test Facility Base adjustment; \$673 thousand for revised inflation rates and other minor pricing adjustments.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT NUMBER: W0568
 PROJECT TITLE: RDT&E Aircraft Flight Hours

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. FUEL	4,867	4,914	2,833
b. PROFICIENCY/PROJECT FLIGHTS	6,460	5,423	3,070
c. SBIR Assessment		16	
Total	11,327	10,353	5,903

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0568

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Flight Hours

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	* Total FY 1991 to 1994	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	Total Complete	Total Program
Product Development										
NAWCAD WARM	WX	1 Oct	CONT.	CONT.	17,423 **	0	0	0		
NAWCAD PAX	WX	1 Oct	CONT.	CONT.	0	4,265	3,510	1,835	CONT.	CONT.
NAWCWD MUGU	WX	1 Oct	CONT.	CONT.	11,939	3,027	2,946	2,200	CONT.	CONT.
NRL FSD PAX	WX	1 Oct	CONT.	CONT.	5,988	2,271	1,947	780	CONT.	CONT.
CSS PANAMA CITY	WX	1 Oct	CONT.	CONT.	4,906	1,464	1,466	733	CONT.	CONT.

All other contracts less than \$1.0M (Aggregate Total)

Not applicable.

All other field activities less than \$1M (Aggregate Total)

MISC	WX,RX	1 Oct	CONT.	4,848	300	468	355	CONT.	CONT.

Support and Management - Not applicable.

Test and Evaluation - Not applicable.

* This ongoing program has been in existence since prior to 1975. Detailed execution data is not available prior to 1991.
 ** Effective FY 1995, funding for NAWCAD Warminster forwarded to NAWCAD Pax River due to BRAC II relocation.

GOVERNMENT FURNISHED PROPERTY: Not applicable

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0568

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Flight Hours

* Total									
FY 1991	FY 1995	FY 1996	FY 1997	To	Total				
to 1994	Budget	Budget	Budget	Complete	Program				
45,104	11,327	10,337	5,903	CONT.	CONT.				

Subtotal Product Development

Subtotal Support and Management

Subtotal Test and Evaluation

SBIR Assessment

Total Project

16

45,104 11,327 10,353 5,903 CONT. CONT.

* This ongoing program has been in existence since prior to 1975. Detailed execution data is not available prior to 1991.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N
 PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0569 RDT&E Aircraft Support	54,443	37,436	31,411	41,755	48,205	48,534	48,425	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: RDT&E Aircraft Support. This continuing project funds costs associated with Navy Research, Development, Test and Evaluation (RDT&E) fixed and rotary wing aircraft which accommodate test and evaluation of aircraft/weapon systems. Included in these costs are Aviation Depot-level Repairables (AVDLRs), which are spare and replacement aircraft parts and components. This project funds aircraft Standard Depot Level Maintenance (SDLM), in-service repairs, modifications, emergency repairs, and engine repair, as well as aircraft material condition and field inspections. Additionally, it funds Individual Material Readiness List (IMRL) tools and support equipment, modification of in-service aircraft, and other systems for application to and compatibility with RDT&E requirements. Special Flight Test Instrumentation Pool (SFTIP) equipment, shared by programs to reduce or eliminate procurement lead times and save money, is also supported. The project is also funding modifications and upgrades of RDT&E P3 engines, landing gear, and avionics. Operation and implementation of numerous maintenance and material management programs are also supported.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$54,443) The following programs were supported: SDLM, AVDLR, IMRL, engine, and in-service repair support and modifications of aircraft in the RDT&E inventory. Accomplished deferred portion of FY94 AVDLRs and engine repairs. Increased funding in this fiscal year did not fully offset increases in SDLM/AVDLR costs. Individual AVDLR component costs increased an average of 28 percent due to changing policy changes. Downsizing of RDT&E aircraft inventory continued in preparation for FY96 funding levels. Operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities continued. In-service depot-level repair of two F/A-18 aircraft for conversion from fleet to RDT&E use was completed. P-3 avionics upgrades to communications, navigation, and weather radar were completed. Integration of aircraft and aircrew from Naval Air

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT NUMBER: W0569
PROJECT TITLE: RDT&E Aircraft Support

Warfare Center Aircraft Division (NAVAIRWARCENACDIV) Warminster PA to NAVAIRWARCENACDIV Patuxent River MD due to BRAC II was completed.

2. (U) FY 1996 PLAN:

- (U) (\$37,371) The following programs will be minimally supported: SDLM, AVDLR, IMRL, engine, and in-service repair support and modifications of aircraft in the RDT&E inventory. About 20 percent of required AVDLRs and SLDMs will be deferred to FY97. All efforts will be made to maintain RDT&E aircraft readiness levels in order to support highest priority project workload. Operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities will continue.

- (U) (\$65) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$31,411) The following programs will be supported at a level which will meet 75 percent of forecasted requirements: SDLM, AVDLR, IMRL, engine, and in-service repair support and modifications of aircraft in the RDT&E inventory. Operation of maintenance and material management programs at Naval Air Warfare Center activities will continue at the minimum safe level. Deferral of required AVDLRs and SLDMs will result in deferral into FY98, increasing the requirement. Will support to only the highest priority RDT&E programs in FY97 will result in schedule slippage or cancellation of lower priority program testing.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N PROJECT NUMBER: W0569
 PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Support

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996/1997 President's Budget:	54,463	39,792	43,259
(U) Adjustments from PRESBUDG:	-20	-2,356	-11,848
(U) FY 1997 President's Budget Submit:	54,443	37,436	31,411

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 decrease reflects \$20 thousand for minor pricing adjustments. FY 1996 decrease reflects \$1,367 thousand for Major Range Test Facility Base adjustment; \$534 thousand for Congressional undistributed general and inflation reductions; and \$455 thousand for revised DoD inflation rates. FY 1997 decrease reflects \$9,770 thousand for Defense Business Operating Funds rate adjustment; a decrease of \$1,088 thousand for reduced aircraft support, and \$990 thousand for revised DoD inflation rates.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N DATE: March 1996
 PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT NUMBER: W0569
 PROJECT TITLE: RDT&E Aircraft Support

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. AVDLR	35,127	21,795	18,914
b. SFTIP	1,700	1,000	868
c. SDLM	9,000	6,861	5,954
d. A/C SUPPORT	8,616	7,715	5,675
e. SBIR Assessment		65	
Total	54,443	37,436	31,411

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0569

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

PROJECT TITLE: RDT&E Aircraft Support

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Method/ Fund Type	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	* Total FY 1991 to 1994	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	Total Complete	Total Program
Product Development SFTIP										
NAWCAD PAX	WX	1 Oct	CONT.	CONT.	6,675	1,700	1,000	868	CONT.	CONT.
SDLM										
NADOC PAX	PD	1 Oct	CONT.	CONT.	33,895	9,000	6,861	5,954	CONT.	CONT.
AVDLR										
NAWCAD PAX	WX	1 Oct	CONT.	CONT.	46,799	19,454	12,005	9,806	CONT.	CONT.
NAWCWD C/L	WX	1 Oct	CONT.	CONT.	19,566	8,180	5,989	4,903	CONT.	CONT.
NAWCWD MUGU	WX	1 Oct	CONT.	CONT.	25,933	4,449	3,010	2,465	CONT.	CONT.
NRL FSD PAX	WX	1 Oct	CONT.	CONT.	5,639	1,650	1,320	1,146	CONT.	CONT.
CSS PANAMA CITY	WX	1 Oct	CONT.	CONT.	4,309	1,394	726	594	CONT.	CONT.
NAWCAD WARM	WX	1 Oct	CONT.	CONT.	7,294	**	0	0	CONT.	CONT.
AUTEC	WX	1 Oct	CONT.	CONT.	2,623	**	0	0	CONT.	CONT.
AIRCRAFT SUPPORT										
NADOC PAX	PD	1 Oct	CONT.	CONT.	34,317	6,426	5,426	4,639	CONT.	CONT.
MISC	WX, RC	1 Oct	CONT.	CONT.	7,702	1,472	325	282	CONT.	CONT.
Support and Management										
MISC	WX, RC, PD	1 Oct	CONT.	CONT.	1,751	718	709	754	CONT.	CONT.

* This ongoing program has been in existence since prior to 1975. Detailed execution data is not available prior to 1991.
 ** Effective FY 1995, funding for NAWCAD Warminster forwarded to NAWCAD Pax River due to BRAC II relocation.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0569

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Support

*** Effective FY 1995, funding for AUTEC realigned from AVDLR to A/C Support. Effective FY 1996, transferred to P.E.0605864N.
Test and Evaluation - Not applicable.

GOVERNMENT FURNISHED PROPERTY: Not applicable.

	* Total FY 1991 to 1994	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	194,752	53,725	36,662	30,657	CONT.	CONT.
Subtotal Support and Management	1,751	718	709	754	CONT.	CONT.
Subtotal Test and Evaluation						
SBIR Assessment			65			
Total Project	196,503	54,443	37,436	31,411	CONT.	CONT.

* This ongoing program has been in existence since prior to 1975. Detailed execution data is not available prior to 1991.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N

PROGRAM ELEMENT TITLE: Test and Evaluation Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0541 Atlantic Undersea Test and Evaluation Center (AUTECE)	49,428	41,009	45,094	47,488	47,121	46,790	45,992	CONT.	CONT.
W0653 Naval Air Warfare Center Weapons Division	140,522	115,238	121,290	136,336	135,458	135,487	134,330	CONT.	CONT.
W0654 Naval Air Warfare Center Aircraft Division	95,806	80,143	76,507	85,007	83,264	83,267	82,274	CONT.	CONT.
TOTAL	285,756	236,390	242,891	268,831	265,843	265,544	262,596	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides institutional maintenance and operations support for: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCENT DET AUTECE), Andros Island, Bahamas; the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point Mugu and China Lake, CA; the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD and Trenton, NJ. The Test and Evaluation (T&E) activities make up the Navy portion of the Department of Defense's Major Range and Test Facility Base (MRTFB). These activities are chartered to develop, refine and maintain the capability and capacity to perform the full spectrum of development and acquisition of technologically advanced weapons systems. Core T&E capabilities and capacity are paramount in obtaining weapons system performance documentation for acquisition program milestone decisions, to provide operational forces with effective reliable weapon systems. This project funds facility costs not chargeable to the user.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: 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 use.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N
PROGRAM ELEMENT TITLE: Test and Evaluation Support

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0541 Atlantic Undersea Test and Evaluation Support (AUTECH)	49,428	41,009	45,094	47,488	47,121	46,790	45,992	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: AUTECH provides a deep water Test and Evaluation (T&E) facility for collecting selected underwater, surface and air tracking data on test participants. NAVUNSEAWARCEN DET AUTECH, Andros Island, Bahamas, includes the Weapons Range, Fleet Operational Readiness Accuracy Check Site, Weapons Acoustic Measurement Capability and an Ocean Haul Down Facility for large buoyant bodies. The Weapons Range provides three-dimensional (undersea, surface, and air) precision tracking capability in support of Anti-Submarine Warfare Development T&E and Operational T&E. Major training operations include Fleet readiness exercises and tactical development trials. The Fleet Operational Readiness Accuracy Check Site provides the capability to accurately calibrate and align electronic optical, acoustic, and navigational systems installed on submarines, surface ships and helicopters. The NAVUNSEAWARCEN DET AUTECH at West Palm Beach, Florida, provides technical expertise in tracking systems, liaison and test planning with range users, test scheduling, and logistic support.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$30,867) Continued to operate and maintain the physical plant; maintained technical test support instrumentation, marine craft, and spares inventory. Performed repairs to reduce the Backlog of Maintenance and Repair (BMAR items). Performed contract administration support.
- (U) (\$11,241) Continued rental payments to Bahamian government and lease payments for facilities at West Palm Beach.
- (U) (\$7,320) Continued civilian pay, travel, utility, petroleum, oil and lubricants (POL), supply and general and administrative efforts required to maintain and operate the facility.

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Exhibit R-2

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FY 1997 RDT&E.N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0541

PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Atlantic Undersea Test and Evaluation Center

2. (U) FY 1996 PLAN:

- (U) (\$21,329) Maintain core Major Range Test and Facility Base (MRTFB) capabilities to meet critical test workload. Continue to operate and maintain critical elements of the physical plant; operate essential technical test support instrumentation, marine craft, and spares inventory. Support priority maintenance and repair efforts. Perform contract administration support.
- (U) (\$11,262) Continue rental payments to Bahamian government and lease payments for facilities at West Palm Beach.
- (U) (\$8,237) Continue civilian pay, travel, utility, POL, supply, transportation and general and administrative efforts required to maintain and operate the facility.
- (U) (\$181) Portion of program reserved for Small Business Innovation Research in accordance with 15 U.S.C.638.

3. (U) FY 1997 PLAN:

- (U) (\$25,462) Continue to operate essential technical test support assets, instrumentation systems, and marine craft. Perform only critical, priority repairs to instrumentation and test support assets. Perform only critical, priority infrastructure repairs, to minimize BMAR growth. Perform contract administration functions.
- (U) (\$11,322) Continue rental payments to Bahamian government and lease payments for facilities at West Palm Beach.
- (U) (\$8,310) Continue civilian pay, travel, utility, POL, supply, transportation and general and administrative efforts required to maintain and operate the facility.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0541

PROGRAM ELEMENT TITLE: Test and Evaluation Support
PROJECT TITLE: Atlantic Undersea Test and Evaluation Center

B. (U) PROGRAM CHANGE SUMMARY: (Dollars in Thousands)

	FY 1995	FY 1996	FY 1997
(U) FY 1996/1997 President's Budget:	49,115	43,024	42,903
(U) Adjustments from PRESBUDG	+313	-2,015	+2,191
(U) FY 1997 President's Budget Submit:	49,428	41,009	45,094

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1995 reflects an increase of \$313 thousand for Major Range Test Facility Base adjustments. The FY 1996 decreases reflect \$1,519 thousand for Congressional undistributed general and inflation adjustments; and \$496 thousand for revised DoD inflation rates. The FY 1997 increase reflects \$4,693 thousand for Major Range Test Facility Base adjustments; a decrease of \$323 thousand for Defense Business Operating Fund adjustments; a decrease of \$812 thousand for minor pricing adjustments; and a decrease of \$1,367 for revised DoD inflation rates.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N PROJECT NUMBER: W0541
 PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Atlantic Undersea Test and Evaluation Center

C. (U) OTHER PROGRAM FUNDING SUMMARY:

	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
(U) MILCON, Project:	0	0	0	0	4,000	0	0	CONT.	CONT.
(U) RELATED RDT&E:									

(U) PE 0604759N, Major T&E Investment

(U) PE 0605862N, RDT&E Instrumentation Modernization

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0541

PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Atlantic Undersea Test and Evaluation Center

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. Civilian Pay	2,581	2,590	2,590
b. General & Administrative	991	852	850
c. Supplies	1,341	1,300	1,350
d. Facilities Rental (Bahamian/West Palm Beach)	11,241	11,262	11,322
e. Petroleum, Oil and Lubricants (POL)	545	550	560
f. Other POL	1,335	1,350	1,375
g. Other Purchased Services	30,867	21,680	25,462
h. Other MRTFB Expenses/Transportation	527	1,244	1,585
i. SBIR Assessment	0	181	0
TOTAL	49,428	41,009	45,094

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0541

PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Atlantic Undersea Test and Evaluation Center

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government	Contract Method/ Fund Type	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
NAVFAC (Bahamian Lease)	RX	10/96	TBD	TBD	100,500	10,050	10,050	10,050	CONT.	CONT.
AUTEC	WX	10/96	TBD	TBD	607,856	39,378	30,778	35,044	CONT.	CONT.

Support and Management: Not applicable.

Test and Evaluation: Not applicable.

GOVERNMENT FURNISHED PROPERTY: Not applicable.

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	708,356	49,428	40,828	45,094	CONT.	CONT.
SBIR Assessment	0	0	181	0		
Total Project	708,356	49,428	41,009	45,094	CONT.	CONT.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N
PROGRAM ELEMENT TITLE: Test and Evaluation Support

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM CONT.
W0653 Naval Air Warfare Center Weapons Division	140,522	115,238	121,290	136,336	135,458	135,487	134,330	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides maintenance and operational support of the NAVAIRWARCENWPNDIV Pacific Ranges consisting of the China Lake Land Ranges and the Point Mugu and San Nicolas Island (SNI) Sea Range. The Pacific Ranges use China Lake's 1.1 million acres of land area and 17,000 square miles of military restricted (R-2508) airspace together with Point Mugu's 125,000 square miles of instrumented sea range and 36,000 square miles of controlled overlaying airspace; a neighboring deep draft port facility at Port Hueneme, and the offshore airfield and test instrumentation at SNI to perform its T&E mission. The Point Mugu and SNI sea range has unique sea, mountain, instrumented offshore islands, and the interconnectivity needed to support large complex operations. The China Lake air ranges contain unique terrain features, and are instrumented for both low level and high altitude missile and weapon system testing. The Electronic Combat Range (ECR) at China Lake provides outdoor/free space development and operational testing of airborne electronic warfare (EW) systems and tactics against shipboard and land site air defense systems over a land range of 700 square miles. These ranges perform metric radar, multilateration and optical tracking of test objects; command, control, and destruct for range safety purposes; communications; frequency interference control and analysis; collection processing and display of telemetered data; real-time data processing and display; and the operation of full scale aerial target launch capability. Other test facilities include static Radar Cross Section (RCS) measurement, propulsion/warhead/environmental, rocket motor, and other missile components, parachute/weapon recovery system, gun ranges, and weapon system survivability. This project also supports the R-2508 Air Space Control System and the annual lease for offshore islands and remote location instrumentation sites. This project also funds facility costs not chargeable to the user.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N PROJECT NUMBER: W0653
 PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Naval Air Warfare Center Weapons Division

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$64,478) Continued indirect civilian pay and contractor costs required to manage, operate, and maintain the Pacific Ranges' Sea, Air, Ground, Electronic Combat, Junction Ranch RCS ranges, Propulsion, Warhead, and Environmental test facilities, parachute system testing, and operational target vehicle and launch functions. Supported Naval Weapons Station MRTFB functions including aircraft maintenance, weapons handling and storage, and air operations and Public Works vehicle transportation costs. Supported new threat systems at ECR.
- (U) (\$7,344) Continued support for sustaining equipment calibration, materials, supplies, technical equipment and spare parts for range and target instrumentation and equipment systems. Supported newly acquired threat systems at ECR with required critical spare parts and other operational support to ensure instrumentation availability.
- (U) (\$3,907) Continued travel, transportation, printing, communications, annual leases for offshore island and remote location instrumentation sites, host tenant agreement costs, and mandatory training necessary to manage and sustain MRTFB operations.
- (U) (\$7,312) Continued funding MRTFB Real Property Maintenance Activities (RPMA) including emergency call services, extensive road maintenance, periodic system maintenance, and major facility projects to reduce backlog of maintenance and repair to meet new mission and customer requirements. Invested in ordnance facilities to correct safety and operational deficiencies; facility improvements and consolidations to save operations costs; and repairs for basic structure components (i.e., roofs, restrooms, air conditioning, power, etc.).
- (U) (\$4,053) Continued support for maintaining R-2508 Air Space Control System and DC-130 target air launch capability maintenance contract and overhead costs.
- (U) (\$48,110) Continued annual utility costs, facility service contracts, worker's compensation costs for MRTFB employees, and contribution to the Command's General and Administrative (G&A) expenses.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0653

PROGRAM ELEMENT TITLE: Test and Evaluation Support
PROJECT TITLE: Naval Air Warfare Center
Weapons Division

- (U) (\$5,318) Continued flight hour costs to maintain pilot proficiency in aircraft used to support the MRTFB mission.
- 2. (U) FY 1996 PLAN:
 - (U) (\$48,769) Operate core MRTFB capabilities required to meet critical test workload. Support essential components of indirect civilian salary and contractor costs required to manage, operate, and maintain the Pacific Ranges' Sea, Air, Ground, Electronic Combat, Junction Ranch RCS ranges, Propulsion, Warhead, and Environmental test facilities, parachute system testing, and operational target vehicle and launch functions. Support critical elements of Naval Weapons Station MRTFB functions including aircraft maintenance, weapons handling and storage, air operations, and Public Works vehicle transportation costs. The Secretary of the Navy's of Safety and Survivability non-developmental item program was begun to permit procurement of limited numbers of off-the-shelf non-developmental items for operational assessment.
 - (U) (\$5,497) Support continued priority equipment calibration, materials, supplies, technical equipment and spare parts for core range and target instrumentation and equipment systems.
 - (U) (\$3,377) Support essential transportation, printing, communications, annual leases for offshore island and remote location instrumentation sites, Host Tenant Agreement costs, and critical training and travel necessary to manage and sustain MRTFB operations.
 - (U) (\$6,046) Support MRTFB RPMA funding for mission critical emergency call services, road maintenance, and system maintenance to meet customer requirements.
 - (U) (\$2,353) Continue essential support for maintaining R-2508 Air Space Control System and DC-130 target air launch capabilities.
 - (U) (\$43,778) Continue annual utility costs, facility service contracts, worker's compensation costs for MRTFB employees, and contribution to the Command's G&A expenses.
 - (U) (\$5,418) Provide flight hour costs to maintain basic pilot proficiency in aircraft used to support the MRTFB mission.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N PROJECT NUMBER: W0653
 PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Naval Air Warfare Center
 Weapons Division

3. (U) FY 1997 PLAN:

- (U) (\$51,479) Operate core MRTFB capabilities required to meet acquisition program and fleet test workload. Support essential components of indirect civilian salary and contractor costs required to manage, operate, and maintain Pacific Ranges' Sea, Air, Ground, Electronic Combat, Junction Ranch RCS ranges, Propulsion, Warhead, and Environmental test facilities, parachute system testing, and operational target vehicle and launch functions. Support critical elements of Naval Weapons Station MRTFB functions including aircraft maintenance, weapons handling and storage, and air operations and Public Works vehicle transportation costs.
- (U) (\$5,472) Support continued priority equipment calibration, materials, supplies, technical equipment and spare parts for core range and target instrumentation and equipment systems.
- (U) (\$3,416) Provide essential transportation, printing, communications, annual leases for offshore island and remote location instrumentation sites, host tenant agreement costs, and critical training necessary to manage and sustain MRTFB operations.
- (U) (\$6,607) Continue MRTFB RPMA funding for mission critical emergency call services, road maintenance, system maintenance to meet customer requirements.
- (U) (\$3,353) Continue essential support for maintaining R-2508 Air Space Control System and DC-130 target air launch capabilities.
- (U) (\$45,450) Continue annual utility costs, facility service contracts, worker's compensation costs for MRTFB employees, and contribution to the Command's G&A expenses.
- (U) (\$5,513) Provide flight hour costs to maintain basic pilot proficiency in aircraft used to support the MRTFB mission.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0653

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center
Weapons Division

B. (U) PROGRAM CHANGE SUMMARY: (Dollars in Thousands)

(U) FY 1996/1997 President's Budget:

FY 1995	FY 1996	FY 1997
140,771	123,051	119,426

(U) Adjustments from PRESBUDG

-249	-7,813	+1,864
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(U) FY 1997 President's Budget Submit:

140,522	115,238	121,290
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(U) CHANGE SUMMARY EXPLANATION: (Dollars in Thousands)

(U) Funding: The FY 1995 decrease reflects \$249 thousand for miscellaneous program adjustments. The FY 1996 decrease reflects \$6,394 thousand for Congressional undistributed general and inflation adjustments; and \$1,419 thousand for revised DoD inflation rates. The FY change 1997 reflects an increase of \$19,304 thousand for Major Range Test Facility Base adjustments, offset by decreases of \$13,774 thousand for Defense Business Operating Fund adjustments, and \$3,666 for revised DoD inflation rates.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY:

FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
6,000	5,000	0	28,470	21,940	3,774	30,000	CONT.	CONT.

(U) MILCON Projects:

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0653

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center
Weapons Division

(U) RELATED RDT&E:

(U) PE 0604759N, Major T&E Investment

(U) PE 0605862N, RDT&E Instrumentation Modernization

(U) PE 0604256N, Threat Simulator Development

(U) PE 0604258N, Target Systems Development

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0653
PROJECT TITLE: Naval Air Warfare Center
Weapons Division

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. Civilian Pay	45,953	44,333	43,199
b. General and Administrative	43,660	39,328	41,000
c. Equipment and Supplies	7,344	5,498	5,472
d. Equipment Maintenance	6,663	461	2,747
e. MRTFB Flight Hours	5,318	5,418	5,513
f. DC-130	1,700	0	1,000
g. Facility Repairs	7,312	6,046	6,606
h. Range Operations and Support Services	11,862	4,454	5,534
i. R-2508	2,353	2,353	2,353
j. Communications	1,447	1,438	1,450
k. Utilities	4,450	4,450	4,450
l. Other MRTFB Expenses	2,460	1,459	1,966
TOTAL	140,522	115,238	121,290

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N PROJECT NUMBER: W0653
 PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Naval Air Warfare Center
 Weapons Division

ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
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Product Development

NAWCWD	WX	10/96	TBD	TBD	2,153,795	140,522	115,238	121,290	CONT.	CONT.
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Support and Management - Not applicable.

Test and Evaluation - Not applicable.

GOVERNMENT FURNISHED PROPERTY - Not applicable.

Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
2,153,795	140,522	115,238	121,290	CONT.	CONT.

Subtotal Product Development

Subtotal Support and Management: Not applicable

Subtotal Test and Evaluation: Not applicable

Total Project	2,153,795	140,522	115,238	121,290	CONT.
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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N

PROGRAM ELEMENT TITLE: Test and Evaluation Support

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0654 Naval Air Warfare Center Aircraft Division	95,806	80,143	76,507	85,007	83,264	83,267	82,274	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides funds for test and evaluation and fleet support for air platforms. Product areas include aircraft systems flight test and engineering. Test and Engineering Group (TEG) Patuxent River, performs development, and test and evaluation of manned and unmanned air vehicle systems, including mission systems, equipment, subsystems, components, and support systems. NAVAIRWARCENACDIV has extensive airfield, flight test range, aircraft systems test facilities and simulation laboratories. This project also provides technical and engineering support and associated research, development, test and evaluation plant and facilities for air-breathing propulsion systems. This includes accessories and components, fuels and lubricants. This project has extensive facilities for conducting both installed and uninstalled aircraft engine Development, Test and Evaluation (DT&E). This project funds facility costs not chargeable to the user.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$30,342) Continued civilian labor required to manage, operate, and maintain the MRTFB.
- (U) (\$6,441) Continued travel, transportation, collateral equipment, and supplies required for support of the MRTFB. Continued payment of worker's compensation cost for MRTFB employees.
- (U) (\$19,268) Continued communications, purchased equipment maintenance, printing and reproduction, and purchased service contracts necessary to manage and sustain MRTFB operations.
- (U) (\$6,902) Continued the maintenance and repair program.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Naval Air Warfare Center
Aircraft Division

- (U) (\$2,800) Continued minor construction and major repair programs to reduce the Backlog of Maintenance and Repair (BMAR) items.
 - (U) (\$7,373) Continued flight hour costs to maintain pilot proficiency in aircraft used to support MRTFB mission.
 - (U) (\$19,568) Contributed to the Command's General and Administrative (G&A) expenses.
 - (U) (\$3,112) Continued annual utility costs, equipment rentals, and land/building/facility leases.
2. (U) FY 1996 PLAN:
- (U) (\$27,431) Operate mission essential MRTFB capabilities to meet critical test workload. Support essential elements of civilian labor required to manage, operate, and maintain the MRTFB.
 - (U) (\$4,354) Provide essential travel, transportation, collateral equipment, and supplies required for support of the MRTFB. Continue payment of worker's compensation cost for MRTFB employees.
 - (U) (\$9,478) Continue communications, purchase equipment maintenance, printing and reproduction, and purchase service contracts necessary to sustain core MRTFB operations.
 - (U) (\$ 6,109) Continue essential maintenance and repair of MRTFB facilities and instrumentation.
 - (U) (\$2,800) Provide minor construction and major repair for essential MRTFB capabilities to reduce BMAR.
 - (U) (\$7,700) Provide flight hour costs to maintain basic pilot proficiency in aircraft used to support the MRTFB mission.
 - (U) (\$ 4,205) Continue mission essential annual utility costs, equipment rentals, and land/building/facility leases.
 - (U) (\$18,066) Provide Command's G&A reimbursement for essential base services.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center
Aircraft Division

3. (U) FY 1997 PLAN:

- (U) (\$27,385) Operate mission essential MRTFB capabilities to meet critical test workload. Support essential elements of civilian labor required to manage, operate, and maintain core MRTFB functions.
- (U) (\$4,432) Continue travel, transportation, collateral equipment, and supplies required for support of the MRTFB. Continue payment of worker's compensation cost for MRTFB employees.
- (U) (\$9,085) Continue communications, purchase equipment maintenance, printing and reproduction, and purchase service contracts necessary to sustain MRTFB essential operations.
- (U) (\$5,926) Provide maintenance and repair for essential MRTFB capabilities.
- (U) (\$1,400) Provide minor construction and major repair programs for core MRTFB assets.
- (U) (\$7,700) Provide flight hour costs to maintain basic pilot proficiency in aircraft used to support the MRTFB mission.
- (U) (\$4,079) Continue mission essential annual utility costs, equipment rentals, and land/building/facility leases.
- (U) (\$16,500) Provide Command's G&A expense reimbursement for essential base services.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support
PROJECT TITLE: Naval Air Warfare Center
Aircraft Division

B. (U) PROGRAM CHANGE SUMMARY: (Dollars in Thousands)

(U) FY 1996/1997 President's Budget:

FY 1995	FY 1996	FY 1997
92,571	79,966	74,576

(U) Adjustments from PRESBUDG:

+3,235	+177	+1,931
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(U) FY 1997 President's Budget Submit:

95,806	80,143	76,507
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(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1995 increase reflects a \$4,099 thousand MRTFB increase; and a decrease of \$864 thousand for minor pricing adjustments. The FY 1996 increase reflects a \$3,999 thousand Major Range Test Facility Base increase; a decrease of \$2,860 thousand for Congressional undistributed general and inflation adjustments; and a decrease of \$962 thousand for DoD revised inflation rates. The FY 1997 increase reflects a \$13,203 thousand increase for Major Range Test Facility Base adjustments; a decrease of \$7,353 for Defense Business Operating Fund adjustments; a decrease of \$1,606 thousand for specific program adjustments; and a decrease of \$2,313 for revised DoD inflation rates.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support
PROJECT TITLE: Naval Air Warfare Center
Aircraft Division

C. (U) OTHER PROGRAM FUNDING SUMMARY:

FY 1995 ESTIMATE	FY 1996 ACTUAL	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
14,200	0	2,500	0	0	0	0	CONT.	CONT.

(U) MILCON Projects:

(U) RELATED RDT&E:

(U) PE 0604759N, Major T&E Investment

(U) PE 0605862N, RDT&E Instrumentation Modernization

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center

Aircraft Division

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. Civilian Pay	30,342	27,431	27,385
b. General and Administrative	19,568	18,066	16,500
c. Equipment and Supplies	4,799	3,043	3,002
d. Equipment Maintenance	4,093	2,805	2,429
e. MRTFB Flight Hours	7,373	7,700	7,700
f. Facility Repairs	9,702	8,909	7,326
g. Other MRTFB Expenses	16,817	8,317	8,086
h. Utilities/Rental	3,112	3,872	4,079
TOTAL	95,806	80,143	76,507

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Naval Air Warfare Center Aircraft Division

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government	Contract Method/ Fund Type	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Product Development										
NAWCAD	WX	9/96	TBD	TBD	1,396,345	95,806	80,143	76,507	CONT.	CONT.

Support and Management - Not applicable.

Test and Evaluation - Not applicable.

GOVERNMENT FURNISHED PROPERTY - Not applicable.

Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
1,396,345	95,806	80,143	76,507	CONT.	CONT.
Subtotal Product Development					
1,396,345	95,806	80,143	76,507	CONT.	CONT.
Total Project					

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605865N

PROGRAM ELEMENT TITLE: Operational Test and Evaluation Capability

(U) COST: (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0831 Operational Test and Evaluation Force Support	8,147	6,040	5,999	6,441	7,583	7,772	7,664	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element provides Commander, Operational Test and Evaluation Force (COMOPEVFOR) general support funding for the planning, conducting, and reporting of operational test and evaluation of Navy weapon systems acquisition projects and the validation of tactics as required by directives of the Secretary of Defense and by Public Law.

(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.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:
 - (U) (\$5,735) Operationally tested and evaluated Chief of Naval Operations (CNO) projects commensurate with authorized funding level.
 - (U) (\$1,912) Maintained level of effort associated with the DOD 5000 acquisition guidance which requires increased COMOPEVFOR involvement in early operational assessments, developmental testing, and the Cost and Operational Effectiveness Analysis (COEA).
 - (U) (\$500) Refurbished building and replaced equipment destroyed by a major fire at COMOPEVFOR headquarters.
2. (U) FY 1996 PLAN:
 - (U) (\$4,491) Operationally test and evaluate CNO projects commensurate with authorized funding level.
 - (U) (\$1,497) Maintain level of effort associated with the DOD 5000 acquisition guidance which requires increased COMOPEVFOR involvement in early operational assessments, developmental testing, and the COEA.
 - (U) (\$52) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605865N

PROGRAM ELEMENT TITLE: Operational Test and Evaluation Capability

PROJECT NUMBER: RO831

PROJECT TITLE: Operational Test and Evaluation Force Support

with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) (\$4,499) Operationally test and evaluate CNO projects commensurate with authorized funding level.
- (U) (\$1,500) Maintain level of effort associated with the DOD 5000 acquisition guidance which requires increased COMOPTEVFOR involvement in early operational assessments, developmental testing, and the COEA.

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996 President's Budget:	8,477	5,675	6,403
(U) Adjustments from FY 1996 PRESBUDG:	-330	+365	-404
(U) FY 1997 PRESBUDG Submit:	8,147	6,040	5,999

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: Net FY 1995 funding decrease results from an increase for fire damage sustained at COMOPTEVFOR Headquarters building (+500), and a minor reduction in FY 1995 requirement (-830). FY 1996 adjustment is due to the following: MRTFB FY-96 fix (+563), Congressional undistributed reductions (-123), and revised DOD inflation estimates (-75). FY 1997 adjustments include: revised DOD inflation estimates (-187), and other minor pricing adjustments (-217).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605865N

PROJECT NUMBER: R0831

PROGRAM ELEMENT TITLE: Operational Test and Evaluation
Capability

PROJECT TITLE: Operational Test and
Evaluation Force Support

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605865N

PROGRAM ELEMENT TITLE: Operational Test and Evaluation
Capability

PROJECT NUMBER: R0831

PROJECT TITLE: Operational Test and
Evaluation Force Support

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: MARCH 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

(U) COST: (Dollars in Thousands)

PROJECT NUMBER TITLE	FY 1995 ACTUAL	FY 1996 ACTUAL	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0739 Navy C4I Top Level Requirements	2,614	1,082	1,077	1,605	1,873	1,937	1,968	CONT.	CONT.
X0706 EMI Reduction and Radio Frequency Management	1,631	1,946	1,791	1,769	2,293	2,340	2,397	CONT.	CONT.
TOTAL	4,245	3,028	2,868	3,374	4,166	4,277	4,365	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Project R0739 Navy C4I Top Level Requirements - Analyzes fleet requirements and research and development technology to develop top level plans for operating Navy Communications, Command and Control Computers, and Intelligence (C4I) and space systems in the Space and Electronic Warfare (SEW) mission area. Project X0706 Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management develops advanced technology to identify and reduce EMI sources from Navy systems and platforms.

(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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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET DATE: MARCH 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

(U) RESOURCES: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL PROGRAM CONT.
R0739 Navy Command Control, Communications, Computers and Intelligence C'I Top Level Requirements	2,614	1,082	1,077	1,605	1,873	1,937	1,968		CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides analysis of fleet requirements and research and development technology to develop top level plans for operating Navy Communications, C'I and space systems in the Space and Electronic Warfare mission area.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$1,549) Identified programs and actions needed to increase efficiency of C'I links by implementing data correlation and enhanced information management.
- (U) (\$1,065) Identified programs and actions needed to further the integration and implementation of C'I architecture in littoral areas.

2. (U) FY 1996 PLAN:

- (U) (\$531) Identify programs and actions needed to provide networking of C'I systems, e.g. enhanced multilevel security and mine warfare C'I.
- (U) (\$534) Identify programs and actions needed to provide joint capabilities for C'I architecture, e.g. enhanced near real time targeting, real time joint planning/coordination, early intelligence preparation of battle space, and hardkill/softkill weapons.
- (U) (\$17) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: MARCH 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE: Navy Space and Electronic

PROJECT NUMBER: R0739

PROJECT TITLE: Navy C'I Top Level Requirements
Warfare Support (SEW)

3. (U) FY 1997 PLAN:

- (U) (\$476) Identify programs and actions needed to provide networking of C'I systems, e.g. enhanced multilevel security and mine warfare C'I.
- (U) (\$601) Identify programs and actions needed to provide joint capabilities for C'I architecture, e.g. enhanced near real time targeting, real time joint planning/coordination, early intelligence preparation of battle space, and hardkill/softkill weapons.

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996/97 President's Budget:	FY 1995	FY 1996	FY 1997
(U) Adjustments from PREBUDG:	1,690	1,630	1,607
(U) FY 1997 President's Budget Submit:	+924	-548	-530
	2,614	1,082	1,077

(U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: FY 1995 increase is due to execution adjustment (+924). FY 1996: Congressional undistributed general and inflation reductions (-\$25K); and revised DoD inflation rates and other minor pricing adjustments (-\$523K). FY 1997: Revised DoD inflation rates and other minor pricing adjustments (\$-530K).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.
- C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.
- (U) RELATED RDT&E: Not applicable.
- D. (U) SCHEDULE PROFILE: Not applicable.

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BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N DATE: MARCH 1996
 PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ACTUAL	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0706 EMI Reduction and Radio Frequency Management	1,631	1,946	1,791	1,769	2,293	2,340	2,397	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management. This project develops tools to identify and reduce EMI sources from Navy systems and platforms. There are several tools under development to identify and reduce EMI through proper use of the electromagnetic spectrum. The Battle Force (BF) EMI Evaluation System (BEES) is a computer-aided force-level EMI evaluation tool that is used to develop BF Electromagnetic Environmental Effects (E3) policy for naval operations in the joint arena and fosters national and international inter-platform EM compatibility (EMC) during operations and exercises. The Automated Spectrum Planning, Engineering Coordination and Tracking System (ASPECTS) is a computer-aided force-level communications planning and frequency management tool that is used to plan communication links, analyze, allocate and assign communication and radar frequencies for fleet operations. The Waveform Recording and Playback System (WRAPS) is a unique E3 testing system to be used to measure degradation of a system performance due to EMI. The waveform of a potential interfering system is recorded; the recording can then be played back at a variety of test sites to evaluate the vulnerability of other systems to this waveform. Research includes advanced technology chamber (ATC), shielding effectiveness of composite materials, application of fiber optics to signal cables to eliminate EMI, and coherent measurements and development of E3 testing criteria/procedures.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: MARCH 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

PROJECT NUMBER: X0706

PROJECT TITLE: Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$316) ASPECTS: Began development of ASPECTS Terrain Analysis Capability. Continued to develop and incorporate database transfer enhancements. Developed Frequency Assignment Algorithms for EMCAP. Continued developing, planning and coordination with Program Manager (PM) to include ASPECTS in Joint Maritime Command Information System-Afloat (JMICS-A). Continued developing software for ASPECTS for inclusion in Communications Support Systems (CSS).
- (U) (\$849) BEES: Continued incorporating EMCAP into BEES to provide accurate measured radar range, power, frequency and geometry data needed to analyze Electromagnetic Environmental Effects (E3). Continued developing E3 Information Network software bridges to obtain access to multiple databases for BEES use. Continued developing the capability to measure the Electromagnetic Environment (EME) of the BF for use in EMCAP and BEES, to determine compliance with the Frequency Management Plans and detect EME unauthorized users of the frequency spectrum and the presence of hostile emitters.
- (U) (\$0) Waveform Recording and Playback System (WRAPS) Integrated WRAPS funding and effort integrated into BEES.
- (U) (\$466) Criteria and Test Procedures: Continued developing test procedures for electromagnetic vulnerability and susceptibility evaluation of Non-developmental items (NDI) and Commercial off-the-shelf (COTS) procured Navy communications-electronic (CE) equipment.

2. (U) FY 1996 PLAN:

- (U) (\$521) ASPECTS: Complete ASPECTS software development for inclusion in CSS. Continue to develop software for conversion of Frequency Management Module (FMM) of ASPECTS to TAC-4 in JMCIS-A. Continue to develop Frequency Assignment Algorithms for EMCAP. Develop E3 Information Network software bridges to obtain access to multiple data bases for ASPECTS use.

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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: MARCH 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605866N

PROJECT NUMBER: X0706

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

PROJECT TITLE: Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management

- (U) (\$952) BEES: Develop software for conversion of BEES to TAC-4 in JMCIS-A. Develop models and EMI displays for BEES Analyst Terminal to increase fidelity of modeling capability. Complete development of Report Generator for BEES Analyst to provide initial capability to model operational decisions. Continue development of capability to measure and record the EME in real-time record specific radio frequency (RF) signatures for use in EMI investigations.
 - (U) (\$0) Waveform Recording and Playback System (WRAPS) Integrated WRAPS funding and effort integrated into BEES.
 - (U) (\$444) Criteria and Test Procedures: Complete development of capability to assess system performance in topside HF EME. Begin developing criteria and test procedures using industry standards when possible.
 - (U) (\$29) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638.
3. (U) FY 1997 PLAN:
- (U) (\$552) ASPECTS: Complete development of software for conversion of FMM to TAC-4 in JMCIS-A. Continue to develop Frequency Assignment Algorithms for EMCAP. Develop capability to receive real-time recordings of the EME to be used in frequency management. Continue to develop E3 Information Network Software bridges.
 - (U) (\$782) BEES: Continue to develop models and EMI displays for BEES Analyst Terminal to increase model fidelity. Develop Decision Trees and begin to incorporate them into BEES to model operational decisions in response to EMI degradation. Complete software development for BEES conversion to TAC-4 and JMCIS-A. Continue development of real-time recording of the EME for use in ASPECTS frequency management.
 - (U) (\$0) Waveform Recording and Playback System (WRAPS) Integrated WRAPS funding and effort into BEES.
 - (U) (\$457) Criteria and Test Procedures: Develop Coherent Measurement Techniques for E3 testing.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: MARCH 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROJECT NUMBER: X0706

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)
PROJECT TITLE: Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996/97 President's Budget:	<u>FY 1996</u>	<u>FY 1997</u>
(U) Adjustments from PRESBUDG:	1,631	2,040
(U) FY 1997 President's Budget Submit:	0	-249
	1,631	1,791

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 Congressional undistributed general and inflation reductions (-\$59K); and revised DoD inflation rates and other minor pricing adjustments (-\$3K).
FY 1997: Revised inflation estimates and other minor pricing adjustments (\$-249K).

(U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605867N
PROGRAM ELEMENT TITLE: SPACE AND ELECTRONIC WARFARE SURVEILLANCE/RECONNAISSANCE SUPPORT

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL
Z1034 Tactical Satellite Reconnaissance Office									
	10,715	10,883	11,172	11,114	12,403	12,756	13,141	CONT	CONT
R2007 Space Management Support									
	826	844	814	846	988	1,010	1,032	CONT	CONT
TOTAL	11,541	11,727	11,986	11,960	13,391	13,766	14,173	CONT	CONT

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) Z1034: Established to exploit all National and Service sensor systems to improve tactical support to fleet operational commanders. Project also supports fleet exercises, which provide the venue for testing modifications to existing programs and being made aware of new requirements.

(U) R2007: This project provides resources to the Naval Space Command for the conduct of its support testing.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under Budget Activity 6 because it supports the operation and installations required for general research and development use.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605867N

(U) COST (Dollars in Thousands) PROGRAM ELEMENT TITLE: SPACE AND ELECTRONIC WARFARE SURVEILLANCE/RECONNAISSANCE SUPPORT

PROJECT
NUMBER &
TITLE

	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
Z1034 Tactical Satellite Reconnaissance Office	10,715	10,883	11,172	11,114	12,403	12,756	13,141	CONT	CONT

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Established to exploit all National and Service sensor systems to improve tactical support to fleet operational commanders. Project also supports fleet exercises, which provide the venue for testing modifications to existing programs for satisfaction of requirements. Additional detailed information is available at a higher level of classification.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) \$3,800 Joint Exercises/Fleet Support
- (U) \$ 700 Surveillance of Non-Cooperative Targets
- (U) \$1,030 Tactical Displays
- (U) \$3,360 Data Processing and Dissemination
- (U) \$1,825 Dual Use/Leading Edge Technologies

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605867N

PROJECT NUMBER: Z1034

PROGRAM ELEMENT TITLE: SPACE AND ELECTRONIC WARFARE SURVEILLANCE/RECONNAISSANCE SUPPORT

PROJECT TITLE: TACTICAL SATELLITE RECONNAISSANCE OFFICE

2. (U) FY 1996 PLAN:

- (U) \$ 265 Joint Exercises/Fleet Support
- (U) \$2,335 Surveillance of Non-Cooperative Targets
- (U) \$1,774 Tactical Displays
- (U) \$3,215 Data Processing and Dissemination
- (U) \$3,294 Dual Use/Leading Edge Technologies

3. (U) FY 1997 PLAN:

- (U) \$ 534 Joint Exercises/Fleet Support
- (U) \$2,895 Surveillance of Non-Cooperative Targets
- (U) \$1,670 Tactical Displays
- (U) \$2,395 Data Processing and Dissemination
- (U) \$3,678 Dual Use/Leading Edge Technologies

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605867N

PROJECT NUMBER: Z1034

PROGRAM ELEMENT TITLE: SPACE AND ELECTRONIC WARFARE SURVEILLANCE/RECONNAISSANCE SUPPORT

PROJECT TITLE: TACTICAL SATELLITE RECONNAISSANCE OFFICE

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1996 President's Budget:

FY 1995	FY 1996	FY 1997
<u>10,715</u>	<u>11,265</u>	<u>11,502</u>

(U) Adjustments from FY 1996 PRESBDG:

0	-382	-330
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(U) FY 1997 PRESBDG Submit:

10,715	10,883	11,172
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(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1996 adjustment is due to the following: Congressional undistributed general R&D and inflation reductions (-251) and revised DOD inflation rates (-131). FY 1997 adjustment is due to the following: Revised inflation estimates and other minor pricing adjustments (-330).

(U) Schedule: Not Applicable

(U) Technical: Not Applicable

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands) Not Applicable

(U) RELATED RDT&E: Not Applicable

D. (U) SCHEDULE PROFILE: Not Applicable

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605867N

PROGRAM ELEMENT TITLE: SPACE AND ELECTRONIC WARFARE SURVEILLANCE/RECONNAISSANCE SUPPORT

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R2007 Space Management Support	826	844	814	846	988	1,010	1,032	CONT	CONT

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides resources to the Naval Space Command (NAVSPACECOM) for the conduct of its support testing. NAVSPACECOM is tasked with providing space support to fleet units worldwide, while also planning and coordinating future support system analysis, requirements, architectural and feasibility studies, technical demonstrations and prototype system development for future concepts to provide space support to the fleet warfighter.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U)\$210 Completed prototyping and began testing and demonstration of system for tactical space support to the fleet.
- (U)\$566 Evaluated advanced technology options for space support to the fleet.
- (U)\$50 Completed technology supplement for support of the evolution of the SEW concept as part of revision to Naval Space Technology Plan.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605867N

PROJECT NUMBER: R2007

PROGRAM ELEMENT TITLE: SPACE AND ELECTRONIC WARFARE SURVEILLANCE/RECONNAISSANCE SUPPORT

PROJECT TITLE: SPACE MANAGEMENT SUPPORT

2. (U) FY 1996 PLAN:

- (U) \$200 Continue testing and demonstration of system for tactical space support to the fleet.
- (U) \$300 Continue evaluating advanced technology options for space support to the fleet.
- (U) \$330 Commence exploration of advance data processing and electronic dissemination of space derived products.
- (U) \$14 Portion of extra mural program reserved for small Business Innovaton Research assissment in accordance with 15 U.S.C. 638.

3. (U) FY 1997 PLAN:

- (U) \$171 Complete testing and demonstration of system for tactical space support to the fleet.
- (U) \$244 Continue evaluating advanced technology options for space-based assets for providing tactical support to the fleet.
- (U) \$334 Continue exploration of and begin demonstration of advanced data processing and electronic dissemination of space-derived products.
- (U) \$65 Commence development of update to Naval Space Technology Plan to address changes resulting from the continued evolution of the SEW concept.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605867N PROJECT NUMBER: R2007
 PROGRAM ELEMENT TITLE: SPACE AND ELECTRONIC WARFARE SURVEILLANCE/RECONNAISSANCE SUPPORT
 PROJECT TITLE: SPACE MANAGEMENT SUPPORT

B. (U) PROGRAM CHANGE SUMMARY:

- (U) FY 1996 President's Budget:
- (U) Adjustments from FY 1996 PRESBUDG:
- (U) FY 1997 PRESBUDG Submit:

FY 1995	FY 1996	FY 1997
<u>826</u>	<u>869</u>	<u>839</u>
0	-25	-25
826	844	814

(U) CHANGE SUMMARY EXPLANATION

(U) Funding: FY 1996 adjustment is due to: Congressional undistributed reductions (-16) and revised inflation rates (-9). FY 1997 adjustment is due to: Revised inflation (-24) and other minor pricing adjustments (-1). DOD

(U) Schedule: Not Applicable

(U) Technical: Not Applicable

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands) Not Applicable

(U) RELATED RDT&E: Not Applicable

D. (U) SCHEDULE PROFILE: Not Applicable

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0030 Marine Corps Studies and Analysis	2,316	2,217	3,863	3,843	3,819	3,788	3,765	CONT.	CONT.
C0033 Operational Test and Evaluation (OT&E) Support	3,064	2,048	2,214	1,714	2,365	2,346	2,332	CONT.	CONT.
C0073 Human Resources Management and Forecasting	1,923	1,667	1,347	1,681	1,715	1,610	1,600	CONT.	CONT.
TOTAL	7,303	5,932	7,424	7,238	7,899	7,744	7,697	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element (PE) provides the analytical foundation for the Marine Corps Studies System (MCSS), including mandated Mission Area Analyses and Cost and Operational Effectiveness Analyses. The MCSS is the front end of the Marine Corps' acquisition system, supporting the Concepts Based Requirements System and Combat Development Process. In addition, the PE supports Marine Corps Operational Test and Evaluation (OT&E) Activity representatives for Marine Corps OT&E and OT&E performed by Fleet Marine Force Commanders and Technical Support Activities. The PE also funds the advanced development of systems and equipment to improve the manpower readiness of the Fleet Marine Force.

(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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FY 1997 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM	CONT.
C0030 Marine Corps Studies and Analysis	2,316	2,217	3,863	3,843	3,819	3,788	3,765	CONT.	CONT.	

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides the analytical foundation for the Marine Corps Studies System (MCSS). The MCSS is the front end of the Marine Corps' acquisition system, supporting the Concepts Based Requirements System (CBRS) and Combat Development Process (CDP). This program funds a variety of studies to include: mandated Mission Area Analysis (MAA); technology assessments; force structure analysis; weapons systems analysis; concept development and analysis studies; cost benefit analysis; training assessments; feasibility analysis; scenario development; and system threat analysis. The MCSS also is required to fund for the execution of Milestone I Cost and Operational Effectiveness Analysis (COEA) studies in support of Program Objective Memorandum initiatives. This program provides quantitative information to decision makers on which to base improvements to doctrine, training and education, force structure, and procurement. The MCSS also provides analytical support for decisions related to the resolution of current problems identified by the operating forces.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$1,225) Executed approved studies in the FY 1995 Marine Corps Studies Master Plan (MCSMP). The MCSMP included six mandated MAAs and five COEAs.
- (U) (\$1,091) Funded the continuation of nine continuing FY 1994 study initiatives.

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FY 1997 ROT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0030

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Studies and Analysis

2. (U) FY 1996 PLAN:

- (U) (\$1,979) Execute approved studies in the FY 1996 MCSMP. The MCSMP will include six mandated MAAs and five COEAs.
- (U) (\$193) Fund the continuation of an estimated three continuing FY 1995 study initiatives including one MAA and one COEA.
- (U) (\$45) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C 638(F)(1).

3. (U) FY 1997 PLAN:

- (U) (\$3,004) Execute approved studies in the FY 1997 MCSMP. The MCSMP will include six mandated MAAs and five COEAs.
- (U) (\$859) Fund the continuation of an estimated ten continuing FY 1996 study initiatives.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0030

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Studies and Analysis

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996 President's Budget:	1,808	2,288	3,979
(U) Adjustments from FY 1996 PRESBUD:	+508	-71	-116
(U) FY 1997 President's Budget Submit:	2,316	2,217	3,863

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1995 increase provided funding to perform additional, previously unfunded, efforts in the approved MCSMP. These additional studies included funding to support the initial increment of the Mission Area 24 - Fire Support MAA.

(U) The FY 1996 decrease is due to undistributed Congressional reductions and revised economic assumptions. FY 1997 decrease is due to revised economic assumptions.

(U) Schedule: Program schedules have been adjusted to accommodate funding changes. The Marine Corps reviews, approves and prioritizes its study and analysis requirements twice each year. This program uses available funding to execute the MCSMP.

(U) Technical: Studies and analyses are used to support the CBRS and CDP. Studies are normally focused on the Marine Corps' mid- and long-range issues associated with organization, concepts, doctrine, equipment and training.

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

(U) RELATED RDT&E: PE 0605154N (Center for Naval Analyses (CNA))

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M PROJECT NUMBER: C0030 PROJECT TITLE: Marine Corps Studies and Analysis
PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
a. Contract Studies and Analyses	1,956	1,968	3,603
b. Program Support and Management	360	249	260
Total	2,316	2,217	3,863

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FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0030

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Studies and Analysis

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Product Development: Not applicable.										
Support and Management										
MCCDC, Quantico, VA	WR	1ST QTR			1484	360	249	260	CONT.	CONT.
Test and Evaluation										
PRC Inc., Woodbridge, VA	C/CPFF	1ST QTR			2,128	529	949	2,091	CONT.	CONT.
PSE Inc., Alexandria, VA	C/CPFF	1ST QTR	2,471	2,471	2,140	331	0	0	0	2,471
ASEC Inc, Dumfries, VA	C/CPFF	1ST QTR			2,073	513	676	1,512	CONT.	CONT.

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FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M PROJECT NUMBER: C0030
 PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support PROJECT TITLE: Marine Corps Studies and Analysis

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior Support	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Test and Evaluation (continued)										
Joint Spectrum Center,	MIPR	2ND QTR	128	128	0	128	0	0	0	128
Annapolis, MD										
OPNAV (N81),	WR	1ST QTR	43	43	0	43	0	0	0	43
Washington, DC										
SAIC (SPAWAR),	WR	3RD QTR	12	12	0	12	0	0	0	12
Arlington, VA										
LMI, McLean, VA	MIPR	3RD QTR	210	210	0	210	0	0	0	210
TACOM, Warren, MI	MIPR	3RD QTR	50	50	0	50	0	0	0	50
University of Western Michigan, Kalamazoo, MI										
C/FFP	3RD QTR		483	483	0	140	343	0	0	483
Total Test and Evaluation						6,341	1,956	3,603	CONT.	CONT.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0030

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Studies and Analysis

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	0	0	0	0	0	0
Subtotal Support and Management	1,484	360	249	260	CONT.	CONT.
Subtotal Test and Evaluation	6,341	1,956	1,968	3,603	CONT.	CONT.
Total Project	7,825	2,316	2,217	3,863	CONT.	CONT.

C. (U) FUNDING PROFILE: Not applicable.

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Exhibit R-3

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DATE: March 1996

FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0033 Marine Corps Operational Test and Evaluation Activity (MCOTEA)	3,064	2,048	2,214	1,714	2,365	2,346	2,332	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program supports the Marine Corps Operational Test and Evaluation (OT&E) Activity (MCOTEA) representatives for Marine Corps OT&Es and OT&Es performed by Fleet Marine Force Commanders and Technical Support Activities. This program also provides for OT&E of systems prior to procurement by the Marine Corps to include test planning, operational testing, and Independent Evaluation Report (IER) preparation.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS AND PLANS

- (U) (\$1,086) MCOTEA: Provided in-house support, salaries and utilities.
- (U) (\$221) C-17 Aircraft: Participated in IOT&E and published IER.
- (U) (\$15) Medium Tactical Vehicle Remanufacture (MTVR) Program: Wrote test plans, conducted Operational Analysis (OA), and published IER.
- (U) (\$1,482) Light Armored Vehicle (LAV) Air Defense (AD): Conducted IOT&E and published IER.
- (U) (\$90) Tactical Combat Operations (TCO): Conducted IOT&E and published IER.
- (U) (\$40) Trojan Spirit II (TS II): Conducted IOT&E and published IER.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0033

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

- (U) (\$3) 81 millimeter Infrared Mortar Cartridge (81mm IMC): Conducted IOT&E and published IER.
- (U) (\$75) Portable Automated Computerized Lightweight Expandable Search System (PACLESS): Conducted IOT&E.
- (U) (\$52) Mobile Electronic Warfare Support System (MEWSS) Product Improvement Program (PIP): Conducted IOT&E and published IER.

2. (U) FY 1996 PLAN:

- (U) (\$1,072) MCOTEA: Provide in-house support, salaries, and utilities.
- (U) (\$29) C-17 Aircraft: Participated in IOT&E and published IER.
- (U) (\$1) Medium Machine Gun Tripod-Lightweight (MMGT-LW): Conduct IOT&E and published IER.
- (U) (\$75) Improved Direct Air Support Central (IDASC): Conduct IOT&E and published IER.
- (U) (\$25) Joint Services Lightweight Integrated Sult Technology (JLIST): Conduct IOT&E and published IER.
- (U) (\$65) AN/TPS-59: Conduct IOT&E and publish IER.
- (U) (\$58) Tactical Remote Sensor System (TRSS): Conduct IOT&E and publish IER.
- (U) (\$71) Diver's Propulsion Device (DPD): Conduct IOT&E and published IER.
- (U) (\$64) Improved Recovery Vehicle: Conduct IOT&E and publish IER.
- (U) (\$70) Joint Anti-Armor Weapons System (JAVELIN): Conduct IOT&E and publish IER.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT NUMBER: C0033

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

- (U) (\$55) Mobile Electronic Warfare Support System (MEWSS): Conduct IOT&E and publish IER.
 - (U) (\$50) AN/PSC-5: Conduct IOT&E and publish IER.
 - (U) (\$68) Secondary Imagery Dissemination System (SIDS): Conduct IOT&E and publish IER.
 - (U) (\$155) Light Armored Vehicle Mobility Block Improvement Plan (LAV MBIP): Conduct IOT&E and publish IER.
 - (U) (\$45) Advanced Combat Vehicle Crewman's Helmet (ACVCH): Conduct IOT&E and publish IER.
 - (U) (\$84) Marine Expeditionary Force Intelligence Analysis System (MEF IAS): Conduct IOT&E and publish IER.
 - (U) (\$45) AN/TPQ-36 Firefinder Radar: Conduct IOT&E and publish IER.
 - (U) (\$16) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638(f)(1).
3. (U) FY 1997 PLAN:
- (U) (\$973) MCOTEA: Provide in-house support, salaries, and utilities.
 - (U) (\$70) Designated Marksman Rifle (DMR): Conduct IOT&E and publish IER.
 - (U) (\$140) Lightweight 155 Howitzer (LW 155): Conduct IOT&E and publish IER.
 - (U) (\$19) Remote Landing Site Tower (RLST): Conduct IOT&E and publish IER.
 - (U) (\$60) Technical Control and Analysis Center (TCAC): Conduct IOT&E and publish IER.
 - (U) (\$60) Intelligence Analysis System (IAS): Conduct IOT&E and publish IER.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0033

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

- (U) (\$50) Tactical Soft Shelters (TSS): Conduct IOT&E and publish IER.
- (U) (\$55) Tactical Electronic Reconnaissance Processing and Evaluation System (TERPES): Conduct IOT&E and publish IER.
- (U) (\$122) Medium Heavy Equipment Transporter (MHET): Conduct IOT&E and publish IER.
- (U) (\$60) Commercial GTF Terminal (TRI BAND): Conduct IOT&E and publish IER.
- (U) (\$125) Tactical Combat Operations II (TCO II): Conduct IOT&E and publish IER.
- (U) (\$50) Mobile Electronic Warfare Support System (MEWSS): Conduct IOT&E and publish IER.
- (U) (\$65) Magnetic Countermine System (MACS): Conduct IOT&E and publish IER.
- (U) (\$225) Digital Technical Control (DTC) and Tactical Data Network (TDN): Conduct IOT&E and publish IER.
- (U) (\$140) Driver's Thermal Viewer (DTV): Conduct IOT&E and publish IER.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0033
PROJECT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1995	FY 1996	FY 1997
(U) FY 1996 President's Budget:	1,839	1,909	2,344
(U) Adjustments from FY 1996 PRESBUD:	+1,225	+139	-130
(U) FY 1997 President's Budget Submit:	3,064	2,048	2,214

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1995 funding increase of \$1,225 supports additional LAV-AD Operational Testing. Additional testing was necessary because the LAV-AD experienced the following problems during earlier testing. During Developmental Test IIA all performance requirements set forth in the Purchase Description were met with the following exceptions: The GAU-12/U 25mm Gun failed to meet two of the five accuracy requirements and one prototype failed to meet the maintainability requirements. In addition, during IOT&E, the LAV-AD experienced problems with its Laser Range Finder (LRF) and communications suite. The LRF was unable to consistently provide range information to the gun fire control system. The communications problems primarily centered on electromagnetic compatibility issues, cosine interference with the two Very High Frequency antennas and failure of the GRC-213 High Frequency radio to communicate with the Marine Air command and Control System. These deficiencies have been corrected by the contractor and the additional FY 1995 funding was used to test system modifications.

Individual project studies funding was adjusted based on updated prioritization and cost information. These changes had zero net effect.

(U) The FY 1996 increase was realigned to cover projected shortfalls in the Operations and Testing requirements.

(U) The FY 1997 funding decrease is due to various Defense Business Operating Fund (DBOF) rate adjustments. These rate adjustments have no programmatic impact.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M PROJECT NUMBER: C0033
PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

(U) Schedule: Program testing schedules were modified based on updated program status reports. These schedule changes had no adverse impact on the effected projects.

(U) Technical: Not applicable.

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

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0033

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories	FY 1995	FY 1996	FY 1997
a. Program Support	1,086	1,072	1,030
b. Testing/Evaluation/Assessment	1,978	976	1,184
Total	3,064	2,048	2,214

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FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M PROJECT NUMBER: C0033
 PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
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Product Development: Not applicable.

Support and Management

MCCDC, Quantico, VA	WR/RCP	1ST QTR			3,407	1,066	1,052	1,010	CONT.	CONT.
Resident Officer In Charge of Construction, Quantico, VA	NIPR	1ST QTR			55	20	20	20	CONT.	CONT.
Total Support and Management					3,462	1,086	1,072	1,030	CONT.	CONT.

Test and Evaluation

MCCDC, Quantico, VA	WR/RCP	2ND QTR			320	324	160	160	CONT.	CONT.
NWS, Seal Beach, CA	WR	1ST QTR			1,507	202	125	106	CONT.	CONT.
NWC, China Lake, CA	WR/RCP	1ST QTR			266	727	150	135	CONT.	CONT.
NSWC, Crane, IN	WR	1ST QTR			25	25	25	24	CONT.	CONT.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0033

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

Contractor/ Government Performing Activity	Contract Method/ Fund Type Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
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Test and Evaluation (continued)
Ft. Huachuca, AZ MIPR

2ND MARDIV, Camp Lejeune, NC	WR	1ST QTR			13	3	3	7	CONT.	CONT.
MCB LEJ, Camp Lejeune, NC	WR	1ST QTR			11	0	2	5	CONT.	CONT.
1ST MARDIV, Camp Pendleton, CA	WR	1ST QTR			2,295	0	385	676	CONT.	CONT.
MCB CAMPEN, Camp Pendleton, CA	WR	1ST QTR			32	0	5	11	CONT.	CONT.
1ST FSSG, Camp Pendleton, CA	WR	1ST QTR			48	10	8	17	CONT.	CONT.
MCAGCC, Twenty-nine Palms, CA	WR	2ND QTR			128	0	113	43	CONT.	CONT.
NRCC, Washington, DC	RCP	2ND QTR	229	229	0	229	0	0	0	229
US Army Threat Helicopter Support, Ft. Bliss, TX	WR	3RD QTR	183	183	0	183	0	0	0	183
MICOM, Huntsville, AL	WR/RCP	3RD QTR	154	154	0	154	0	0	0	154
MISC	WR/RCP/MIPR	VARIOUS	68	68	0	68	0	0	0	68
Total Test and Evaluation			4,645	1,978	976	1,184	CONT.			

GOVERNMENT FURNISHED PROPERTY: Not applicable.

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FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0033

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	0	0	0	0	0	0
Subtotal Support and Management	3,462	1,086	1,072	1,030	CONT.	CONT.
Subtotal Test and Evaluation	4,645	1,978	976	1,184	CONT.	CONT.
Total Project	8,107	3,064	2,048	2,214	CONT.	CONT.

C. (U) FUNDING PROFILE: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0073 Human Resources Management and Forecasting	1,923	1,667	1,347	1,681	1,715	1,610	1,600	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program funds the advanced development of systems and equipment to improve the manpower readiness of the Fleet Marine Force and develops techniques and methods that advance enlisted and officer occupational assignment, promotions, and career track planning in the Marine Corps while end strength is reduced and force structure is changed. This program considers three major efforts: Total Force Decision Support System (TFDSS), Total Force Manpower Process Modernization (TFMPM), and Optical Digital Imaging (ODI). Enlisted Planning System (EPS) is used by manpower planners to model the behavior of the enlisted force of the Marine Corps and to produce accurate, comprehensive manpower plans. It is required for development of the Military Personnel, Marine Corps and to produce accurate, and is used to develop recruiting, re-enlistment, and promotion plans.

TFDSS will provide a data warehouse for current and historical manpower data. The data will be accessed in a client/server environment using the Marine Corps Banyan Local Area Network. The interface provides a "drag and drop" (Windows/icon) environment to allow action officers and decision makers the ability to perform ad-hoc queries using their desk-top personal computers, without the need for programming. The data warehouse will provide manpower data to other Headquarters, Marine Corps systems as needed.

The Manpower Process involves planning, accessing, training, and managing personnel resources. Much of this process is supported by a set of 13 mathematical models that process on an obsolete Control Data Corporation (CDC) mainframe computer. The TFMPM program will migrate the manpower models from the mainframe environment to a client/server architecture ensuring availability in the future. In addition, analysis of the manpower process is being conducted in order to integrate the process across all functional areas.

ODI is a state-of-the-art automation system which utilizes Optical Digital Imagery technology to store and maintain official military personnel files on optical platters. It will provide the capability to capture, store, and retrieve images obtained

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0073

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT TITLE: Human Resources Management and Forecasting

from paper, microfiche, or digital media and provide rapid access and display of those images. An electronic output to workstations, image printers, and Computer Output to Microfiche units will be available for the entire record or specific documents within a record in a timely and efficient manner.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1995 ACCOMPLISHMENTS:

- (U) (\$714) TFDSS: Continued data loading for active, reserve, separated, and retired Marines. Expanded user base and enhanced user interface. Updated applicable Life Cycle Management documentation.
- (U) (\$497) TFMPM: This effort was formerly titled MPH. Completed conversion of Enlisted Assignment Model (EAM) to a client/server architecture. Continued development effort to integrate existing models to incorporate a common Oracle database. Began the conversion process for the Manning Level Process (MLP) model and Target Force Planning Model (TFPM) to a client/server architecture. Began the conversion process for the Officer Staffing Goal Model (OSGM) to a client/server architecture.
- (U) (\$712) ODI: Explored hierarchical storage management subsystem for storage of digital records. Completed the design of the ODI records management system. Expanded the Board Room Imaging capability prototype to a digital Board Room testbed.

2. (U) FY 1996 PLAN:

- (U) (\$546) TFDSS: Continue to load active, reserve, separated and retired marines. Provide data to officer and enlisted assignment models. Develop custom applications for manpower analysis, planning, assignment, and to support flag level TFDSS use. Continue to manage and update Life Cycle Management documentation. Begin to load structure data. Research available commercial off the shelf product to enhance the application and database.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT NUMBER: C0073

PROJECT TITLE: Human Resources Management and Forecasting

- (U) (\$887) TFMPM: Complete conversion of the MLP model, TFPM and OSGM to a client/server architecture. Begin conversion of the Promotion Planning Process (P3) model to a client/server architecture. Study current application and configuration of the Officer Planning Utility System (OPUS) and begin conversion of relevant portions to a client/server architecture. Complete implementation of the Oracle database as the standard database for all manpower models.
 - (U) (\$197) ODI: Begin reengineering the Digital Board Room Prototype to a testbed. Developing a new performance evaluation system form.
 - (U) (\$37) Portion of program reserved for Small Business Innovation Research assessment in accordance with 15 U.S.C. 638(f)(1).
3. (U) FY 1997 PLAN:
- (U) (\$627) TFDSS: Design applications to track quality of life issues, analyze equal opportunity data, and monitor personal awards. Expand user-base and enhance interface. Continue to manage and update Life Cycle Management documentation. Conduct feasibility study to implement in the Fleet Marine Force (FMF) and supporting establishment. Identify additional data sources.
 - (U) (\$720) TFMPM: Complete conversion of the OPUS to a client server architecture. Integrate the P3 model under OPUS. Conduct a Business Process Analysis (BPA) of manpower process to validate applicability of Precise Personnel Assignment System (PREPAS) models and the Tour Concept Evaluation Process (TCEP). Research how the manpower process may be better integrated. Identify deficiencies in Manpower which degrade the manpower process. Reevaluate the merger of Reserve and Active Career Planning Management Systems (CPMS).

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROJECT NUMBER: C0073
PROJECT TITLE: Human Resources Management and Forecasting

B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1996 President's Budget:	1,576	1,717	1,692
(U) Adjustments from FY 1996 PRESBUD:	+347	-50	-345
(U) FY 1997 President's Budget Submit:	1,923	1,667	1,347

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 +347 was due to internal reprogramming. FY 1996 and FY 1997 budgets were reduced for both because of forwarding financing and programmatic schedule adjustments.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

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FY 1997 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: March 1996

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT NUMBER: C0073
PROJECT TITLE: Human Resources Management and Forecasting

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 1995 ACTUAL	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
(U) O&MM,C Line 90A0	0	22	27	37	42	47	52	CONT.	CONT.
(U) PMC Line 51 (BLI# 494200) ADP Equipment (Portion of Manpower and Reserves) (TFDSS, MPM and ODI portions only)	193	3,406	0	0	0	0	0	0	3,983
(U) PMC (BLI# 463500) Tele/Communications Infrastructure Technology Support (Manpower and Reserves)	0	0	191	189	201	196	188	CONT.	CONT.

(U) RELATED RDT&E:

- (U) PE 0603007A (Manpower, Personnel and Training Advanced Technology)
- (U) PE 0603227F (Personnel, Training, and Simulation Technology)
- (U) PE 0603707N (Manpower, Personnel and Training Advanced Technology Development)
- (U) This program adheres to Tri-Service Reliance Agreements on Manpower and Personnel, with oversight and coordination provided by the Joint Directors of Laboratories.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M PROJECT NUMBER: C0073
 PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support PROJECT TITLE: Human Resources Management and Forecasting

A. (U) PROJECT COST BREAKDOWN: (\$ in thousands)

Project Cost Categories

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
a. Total Force Decision Support System (TFDSS)	714	583	627
b. Total Force Manpower Process Modernization (MPM)	497	887	720
c. Optical Digital Imaging (ODI)	712	197	0
Total	1,923	1,667	1,347

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FY 1997 RDT&E,N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M PROJECT NUMBER: C0073
 PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support PROJECT TITLE: Human Resources Management and Forecasting

B. (U) BUDGET ACQUISITION HISTORY AND PLANNING INFORMATION (\$ in thousands)

PERFORMING ORGANIZATIONS

Contractor/ Government Method/ Fund Type Performing Activity Vehicle	Award/ Oblig Date	Perform Activity EAC	Project Office EAC	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Product Development: Not applicable.									

Support and Management

HQMC, Washington, DC WR	1ST QTR			29	1	5	5	CONT.	CONT.
I&L, Washington, DC RCP	2ND QTR	755	755	550	205	0	0	0	755
MISC.	VARIOUS			1,222	0	300	300	CONT.	CONT.
Total Support and Management				1,801	206	305	305	CONT.	CONT.

Test and Evaluation

P&C MCCDC, Quantico, VA RCP	2ND QTR			0	1,717	1,362	1,042	CONT.	CONT.
Total Test and Evaluation				0	1,717	1,362	1,042	CONT.	CONT.

GOVERNMENT FURNISHED PROPERTY: Not applicable.

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FY 1997 RDT&E, N PROGRAM ELEMENT/PROJECT COST BREAKDOWN

DATE: March 1996

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M PROJECT NUMBER: C0073
 PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support PROJECT TITLE: Human Resources Management and Forecasting

	Total FY 1994 & Prior	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget	To Complete	Total Program
Subtotal Product Development	0	0	0	0	0	0
Subtotal Support and Management	1,801	206	305	305	CONT.	CONT.
Subtotal Test and Evaluation	0	1,717	1,362	1,042	CONT.	CONT.
Total Project	1,801	1,923	1,667	1,347	CONT.	CONT.

C. (U) FUNDING PROFILE: Not applicable.

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