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**DEPARTMENT OF THE NAVY
JUSTIFICATION OF ESTIMATES
FY 1990 AND FY 1991 BIENNIAL BUDGET**

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ELECTE
MAY 23 1989
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SUBMITTED TO CONGRESS JANUARY 1989

OPERATION & MAINTENANCE, NAVY

BOOK 1 OF 4

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**BUDGET ACTIVITY 1: STRATEGIC FORCES
BUDGET ACTIVITY 2: GENERAL PURPOSE FORCES
BUDGET ACTIVITY 3: INTELLIGENCE & COMMUNICATIONS
BUDGET ACTIVITY 4: AIRLIFT AND SEALIFT**

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Department of the Navy
Operation and Maintenance, Navy

BOOK ONE
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SUMMARY OF REQUIREMENTS BY PROGRAM PACKAGE (IN THOUSANDS)

<u>BUDGET ACTIVITY 1</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>BK-BA-1G</u>
<u>STRATEGIC FORCES</u>					
TRIDENT Mission Support	93,031	90,683	99,520	125,246	1-1-77
Strategic Weapons Systems	734,074	750,325	899,850	938,888	1-1-19
FBM Ship Operations	101,877	104,870	98,982	100,134	1-1-29
FBM Ship Maintenance	255,174	279,817	355,803	382,391	1-1-55
Strategic Communications	65,492	66,469	86,019	101,523	1-1-52
Space Systems Operations	22,042	23,822	26,580	27,605	1-1-60
Command & Staff	21,857	20,257	21,323	22,683	1-1-67
Maintenance of Real Property	32,928	37,228	34,368	38,868	1-1-73
Base Operations	96,847	105,387	104,201	114,235	1-1-77
Total BA-1	1,423,322	1,478,858	1,726,646	1,851,573	

<u>BUDGET ACTIVITY 2</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>BK-BA-1G</u>
<u>GENERAL PURPOSE FORCES</u>					
TACAIR/ASW Operations	1,542,746	1,437,308	1,401,880	1,424,243	1-2-10
Fleet Air Support	354,814	331,006	320,770	321,433	1-2-13
Ship Operations	1,866,322	1,917,134	1,820,969	1,810,136	1-2-23
Ship Maintenance & Modernization	4,255,281	4,385,325	4,850,296	4,993,792	1-2-32
Combat Support Forces	93,237	98,367	92,139	96,310	1-2-60
Fleet Operations Support	192,730	361,731	483,770	533,724	1-2-65
Other Warfare Support	58,224	62,640	65,455	67,874	1-2-85
Fleet Air Training	415,238	396,886	438,917	433,569	1-2-93
Fleet Ship Training	46,231	43,241	42,343	44,535	1-2-160
Unified Commands	31,784	26,322	31,958	33,965	1-2-166
Fleet Command & Staff	107,205	93,075	96,359	97,946	1-2-111
Cruise Missile	104,582	116,439	115,888	131,950	1-2-116
Maint. of Real Property	489,818	391,655	348,459	362,008	1-2-111
Base Operations	1,341,016	1,408,402	1,512,948	1,564,351	1-2-116
Foreign Currency	133,800	68,000			1-2-135
Total BA-2	11,033,096	11,157,531	11,622,151	11,914,936	

A-1

<u>BUDGET ACTIVITY 3</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>BK-BA-PG</u>
Security Program	382,677	409,366	476,256	500,488	1-3-9
Naval Communications	381,674	373,296	362,508	426,775	
Leased Communications	158,950	178,027	144,146	202,194	1-3-13
Worldwide Military Command & Control	20,500	20,633	22,149	24,267	1-3-22
Management Headquarters	7,003	7,436	7,299	7,523	1-3-29
Other Communications	195,221	167,200	188,914	192,791	1-3-32
Specialized Support	282,955	296,208	326,518	351,742	
Environmental Prediction Support	152,331	166,276	190,483	214,177	1-3-55
Naval Observatory	10,249	10,791	11,528	11,919	1-3-80
Maintenance of Real Property	24,718	25,686	27,785	28,252	1-3-88
Base Operations	95,657	93,455	96,722	97,394	1-3-93
TOTAL BA-3	1,047,296	1,078,870	1,165,282	1,279,005	
<u>BUDGET ACTIVITY 4</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>BK-BA-PG</u>
Sealift Prepositioning/Surge	520,859	546,523	458,121	478,570	1-4-6
TOTAL BA-4	520,859	546,523	458,121	478,570	

SUMMARY OF REQUIREMENTS BY ACTIVITY GROUP

Budget Activity 1: Strategic Forces

	FY 1988				FY 1989				FY 1990				FY 1991			
	Personnel E/S		OGM,N		Personnel E/S		OGM,N		Personnel E/S		OGM,N		Personnel E/S		OGM,N	
	Mil	Civ	Funding		Mil	Civ	Funding		Mil	Civ	Funding		Mil	Civ	Funding	
TRIDENT Program	17	147	93,031		20	149	90,683		20	149	99,520		20	149	125,246	
Strategic Weapons Systems	975	2,616	734,074		1,659	2,753	750,325		1,972	2,920	899,850		1,972	2,904	938,888	
Ship Operations	17,093	0	101,877		17,698	0	104,870		17,988	0	98,982		18,143	0	100,134	
Ship Maint & Modernization	678	1,049	255,174		783	1,033	279,817		784	1,033	355,803		784	1,967	582,391	
Strategic Communications	1,485	0	65,492		1,598	0	66,469		1,662	2	86,019		1,563	2	101,523	
Space Systems	156	291	22,042		157	319	23,822		164	334	26,580		174	334	27,605	
FBM Fleet Command & Staff	874	13	21,857		847	12	20,257		844	11	21,323		840	9	22,683	
Maintenance of Real Property	0	35	32,928		0	35	37,228		0	35	34,368		0	46	38,868	
Base Operations	716	739	96,847		695	728	105,387		779	719	104,201		778	777	114,235	
TOTAL	21,994	4,890	1,423,322		23,457	5,029	1,478,858		24,213	5,203	1,726,646		24,274	5,288	1,851,573	

Department of the Navy
Operation and Maintenance, Navy

Budget Activity: 1 Strategic Forces (Summary)

1. Description of Operations Financed.

The Navy's mission in the Strategic Forces program area is to provide an undersea strategic mission launch capability which will ensure that the United States maintains a credible and survivable deterrent to nuclear war. The Navy's strategic deterrent force in FY 1990 consists of thirty-five fleet ballistic nuclear submarines (SSBNs). There is a net decrease over FY 1989 as one new TRIDENT II submarines deliver and two older POSEIDON submarines are decommissioned. The submarines provide the launch platforms for the undersea strategic missile system, four submarine tenders, one launch area support ship, related service craft, and four ships chartered from the Military Sealift Command (MSC).

Each alert submarine must be ready on patrol to respond to an operational order. Because of this mission they operate under conditions of complete self-sufficiency, including maintaining only one-way communications. Each SSBN is operated alternately by two crews who must know the status and condition of the submarine and the weapons system at all times.

Readiness of this weapon system must be continuously maintained, and the Joint Chiefs of Staff and the Fleet Commanders have prescribed a program of systematic tests which provide both strategic planners and the operating fleet with a high degree of confidence that predictable numbers of warheads will impact on target. The funding requested in this budget provides the support for the fleet ballistic missile forces to maintain the readiness and reliability required to meet the objectives and to support the testing necessary to determine whether the weapon systems are working as intended. An intensive, collaborative effort is undertaken between the fleet and the supporting complex ashore to demonstrate the ship's capability of sustaining high reliability standards. The result is a closed loop system which is the integral concept behind fleet ballistic missile system operational support.

In FY 1990 and FY 1991, program growth results from the introduction of the TRIDENT II submarine and D-5 Missile Weapon System and the increase of one SSBN tender overhaul. Additional growth is due to the transitioning of the Navy's two TACAMO squadrons from the EC-130 aircraft to the E-6A aircraft. All available audit savings have been incorporated into the following budget estimates.

	FY 1989				FY 1990 Budget Request	FY 1991 Budget Request
	FY 1988	Amended Pres. Budget	Approp- piation	Current Estimate		
FINANCIAL SUMMARY						
TRIDENT Program	93,031	93,517	86,632	90,683	99,520	125,246
Strategic Weapons Sys	734,074	790,854	752,959	750,325	899,850	938,888
Ship Operations	101,877	106,677	105,481	104,870	98,982	100,134
Ship Maint & Modernization	255,174	318,923	283,310	279,817	355,803	382,391
Strategic Communications	65,492	61,165	58,955	66,469	86,019	101,523
Space Systems	22,042	24,156	23,129	23,822	26,580	27,605
FBM Fleet Command & Staff	21,857	20,957	20,846	20,257	21,323	22,683
Maintenance of Real Property	32,928	37,309	37,195	37,228	34,368	38,968
Base Operations	96,847	110,712	108,080	105,387	104,201	114,235
TOTAL	1,423,322	1,564,270	1,476,587	1,478,858	1,726,646	1,851,573

	Amount
B. Reconciliation of Increases and Decreases.	
1. FY 1989 Amended President's Budget	\$1,564,270
2. Congressional Adjustments	
A. Inventory Management	-21,444
B. ADP Systems	-5,615
C. MWR	-1,000
D. Command, Control, and Communications	-310
E. Asset Capitalization	-32,191
F. Ship Operations	-252
G. Emergent Repair	-800
H. USS Pennsylvania	-500
I. Fuel Savings	-600
J. A-76 Savings	-1,250
K. Outfitting	-23,721
3. FY 1989 Appropriated	1,476,587

Budget Activity: 1 (Summary)

4. Pricing Adjustments			
A. FY 1989 2.1% Pay Raise		(2,271)	2,271
1) Classified		1,966	
2) Wage Board		305	
5. Other Increases			14,019
A. Programmatic Increases		(14,019)	
1) Strategic Communications		6,755	
2) TRIDENT Program		4,093	
3) Space Systems Operations		549	
4) TRIDENT II		2,622	
6. Other Decreases			-14,019
A. Programmatic Decreases		(-14,019)	
1) TRIDENT Program		-330	
2) Strategic Weapons Systems		-13,532	
3) Space Systems Operations		-38	
7. FY 1989 Current Estimate			1,478,858
8. Pricing Adjustments			38,256
A. Annualization of FY 1989 Pay Raise		(2,917)	
1) Classified		1,268	
2) Wage Board		1,649	
B. FY 1990 Direct Pay Raise		(2,137)	
1) Classified		1,767	
2) Wage Board		370	
C. Stock Fund		(-2,313)	
1) Fuel		-2,029	
2) Non-Fuel		-284	
D. Industrial Fund Rates		(4,245)	
E. Other		(31,270)	
9. Functional Transfers			-15,146
A. TRIDENT Program		-3,314	
B. Strategic Weapons Systems		-12,565	
C. Ship Maintenance and Modernization		682	
D. Strategic Communications		3,584	
E. Maintenance of Real Property		-2,877	
F. Base Operations		-656	

Budget Activity: 1 (Summary)

352,685

10. Program Increases

- A. TRIDENT Mission Support
- B. Strategic Weapons Systems
- C. FBM Ship Operations
- D. Ship Maintenance & Modernization
- E. Strategic Communications
- F. Space Systems Operations
- G. FBM Fleet Command & Staff
- H. Maintenance of Real Property
- I. Base Operations

16,756
202,575
5,246
97,581
22,854
2,333
335
2,888
2,117

11. Program Decreases

- A. TRIDENT Mission Support
- B. Strategic Weapons Systems
- C. FBM Ship Operations
- D. Ship Maintenance & Modernization
- E. Strategic Communications
- F. Space Systems Operations
- G. FBM Fleet Command & Staff
- H. Maintenance of Real Property
- I. Base Operations

-7,880
-64,247
-4,536
-34,350
-6,837
-302
-41
-4,112
-5,702

-128,007

12. FY 1990 President's Budget Request

1,726,646

13. Pricing Adjustments

- A. Annualization of FY 1990 Pay Raise
 - 1) Classified
 - 2) Wage Board
- B. FY 1991 Direct Pay Raise
 - 1) Classified
 - 2) Wage Board
- C. Stock Fund
 - 1) Fuel
 - 2) Non-Fuel
- D. Industrial Fund Rates
- E. Other

(2,018)
1,367
651
(3,257)
2,683
574
(2,876)
1,215
1,661
(8,879)
(32,071)

49,101

Budget Activity: 1 (Summary)

14. Functional Transfers			
A. TRIDENT Program	14,874		-20,050
B. Strategic Weapons Systems	-94,675		
C. Ship Maintenance and Modernization	50,040		
D. FBM Fleet Command and Staff	891		
E. Maintenance of Real Property	2,061		
F. Base Operations	6,759		
15. Program Increases		222,079	
A. TRIDENT Mission Support	8,753		
B. Strategic Weapons Systems	158,684		
C. FBM Ship Operations	3,977		
D. Ship Maintenance & Modernization	22,111		
E. Strategic Communications	24,990		
F. Space Systems Operations	286		
G. FBM Fleet Command & Staff	95		
H. Maintenance of Real Property	1,663		
I. Base Operations	2,520		
16. Program Decreases		-126,203	
A. TRIDENT Mission Support	-964		
B. Strategic Weapons Systems	-51,455		
C. FBM Ship Operations	-3,141		
D. Ship Maintenance & Modernization	-56,496		
E. Strategic Communications	-12,285		
F. Space Systems Operations	-41		
G. FBM Fleet Command & Staff	-262		
H. Maintenance of Real Property	-251		
I. Base Operations	-1,308		
17. FY 1991 President's Budget Request		1,851,573	

Department of the Navy
Operation and Maintenance, Navy

Activity Group: TRIDENT Mission Support
Budget Activity: 1 - Strategic Forces

I. Description of Operations Financed.

The Trident Mission Support Program is dedicated to establishing and maintaining TRIDENT at a high degree of operational readiness. TRIDENT is a three part weapon system comprised of longer range missiles and dedicated weapon support system, a nuclear powered submarine which is more survivable than earlier designs and a life cycle logistic support concept which has been designed to meet TRIDENT's reliability and readiness goals. Through the logistic support systems, which are dedicated to establishing and maintaining a high degree of operational readiness, TRIDENT is achieving an increase in at sea availability over the current POSEIDON force.

The preponderance of funding provides for engineering services and technical support for the TRIDENT submarines. Although a wide range of efforts are comprehended within this request, collectively they provide the means for keeping equipments operating. This includes testing to determine problems, developing corrections and maintaining up-to-date documentation. This type of life cycle logistic support is more disciplined for TRIDENT than for other programs and is the key to maintaining readiness goals. The concept is built on the premise of strict configuration management and pre-planned maintenance work which is accomplished during the ship's refits. The 95 day submarine operational cycle consists of 70 days at sea on patrol and 25 days off patrol. 18 days of the off patrol time are planned to accomplish a refit and incremental overhaul of the ship. After 10 years of operations, an extended availability is planned to accomplish alterations and repairs that are not feasible during the normal 18 day refits.

Support in this activity group provides the detailed pre-planning and engineering necessary to make maximum use of the 25 day off patrol periods. By knowing exactly what configuration and equipments are onboard, how many hours various equipment have been operating, what equipments are scheduled for maintenance removal and repair and other similar data, a specific maintenance plan for each refit can be developed. Thus, when the ship comes in for refit, the repair work has been scheduled, materials prepositioned and the proper personnel and equipment are on hand.

Other aspects of the current life-cycle logistic support program include rigid training to ensure new personnel are familiar with equipment operations, periodic tests to evaluate hardware and system performance, and maintenance of data base information.

TRIDENT Command and Control System Maintenance Activity (TRICCSMA), a NAVSEA field activity located at Naval Undersea Systems Center, Newport, R.I., provides for the life cycle operation and maintenance of OHIO Class Command and Control System (CCS) equipments and computer software from a total systematic program approach. The subsystems composing the CCS include the following functional areas requiring system assessment:

Command	Integrated Radio Room
Sonar	Radio Antennas
Defensive Weapons	Radar
Monitoring	IFF (Identification Friend or Foe)
Data Processing	Interior Communication
Tactical Navigation	Electronic Support Measures
Periscope	Strategic System Interface

Life cycle maintenance of the CCS begins well in advance of ship construction/delivery in order to establish and maintain computer software and equipment and maintenance baselines through system level status accounting and configuration change management. The OHIO Class Submarine Maintenance Concept requires that such equipment subsystems be supported by subsystem In-Service Engineering Activities (ISEA) as well as equipment vendors even after ship transition to operational status. TRICCSMA is tasked to provide the requisite management and coordination of maintenance support to insure that the objectives of the TRIDENT Maintenance Concept are met. Primary objectives of TRICCSMA are to:

- Deploy and support the CCS operations of OHIO Class Submarines.
- Develop and maintain the CCS Maintenance baselines on the OHIO Class Submarines.
- Formulate an upgrade program for the CCS that will correct deficiencies and improve reliability of the system.

The Land Base Evaluation Facility (LBEF) supports TRIDENT I and TRIDENT II efforts. Funding provides installation design for equipment configuration, acquisition of installation materials (cables, trays, pipes), and test procedures for equipment relocation.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1989			FY 1990		FY 1991	
	FY 1988	Amended	Appropriation	Current Estimate	Budget Request	Budget Request	Budget Request
	Actual	Budget					
TRIDENT Cmd & Ctrl Sys Maint Act	22,441	23,300	18,708	22,824	20,853	21,169	
TRIDENT Sub Mission Support	70,590	70,217	67,924	67,859	78,667	104,077	
Total-TRIDENT Mission Support	93,031	93,517	86,632	90,683	99,520	125,246	

B. Reconciliation of Increases and Decreases.

	Amount
1. FY 1989 Current Estimate	\$90,683
2. Pricing Adjustments	
A. Annualization of FY 1989 Direct Pay Raises	(60)
1) Classified	60
B. FY 1990 Direct Pay Raises	(81)
1) Classified	81
C. Industrial Fund Rates	(746)
D. Other Pricing Adjustments	(2,388)
3. Functional Program Transfers	
A. Transfers Out	(-3,314)
1) Intra-Appropriation	
a) TRIDENT INTERMEDIATE MAINTENANCE - Transfer of resources to Budget Activity 7, Central Supply and Maintenance, to reflect the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of compromise to the acquisition procurement process. Recent examination by the Naval Investigative Service and by the Navy	-900
	-3,314

Inspector General have shown that excessive contractor involvement contains the potential for disclosure of sensitive information and improper preparation of specifications or processing of procurement documentation.

-527

- b) TRIDENT INTERMEDIATE MAINTENANCE - This adjustment reflects the transfer of resources to correct improperly aligned reimbursable workload at the Naval Supply Centers and Ships Parts Control Center. Efforts, associated with this adjustment, were being financed reimbursable. However, these efforts are within the mission responsibilities of the Naval Supply Centers and Ships Parts Control Center. Therefore, these efforts should be funded as direct mission and not on a reimbursable basis. This adjustment reflects the transfer from reimbursable to direct mission funding for this effort. This adjustment does not represent any increase or decrease in efforts from that performed in previous years.

-1,885

- c) Reflects the transfer of Performance Monitoring efforts to Ship Maintenance and Modernization Activity Group in Budget Activity 1, Strategic Forces.

- 2) Inter-Appropriation -2

- a) Standard Level User Charges (SLUC) to rent commercially leased space realigned to Budget Activity 9, Base Operations Support for direct payment to General Services Administration Federal Building Fund.

16,756

(16,756)

46

4. Program Increases

- A. Other Program Growth in FY 1990
1) TRICCSMA - Annualization for 1/4 year of Kings Bay detachment related travel and operational costs; and average grade salary adjustment.

Activity Group:
TRIDENT Mission Support (cont'd)

16,710

- 2) TRIDENT INTERMEDIATE MAINTENANCE -During FY 1990, the King's Bay, Georgia, facility will be activated and the Bangor, Washington facility will be upgraded. The Bangor facility's upgrade will be to allow depot level maintenance equivalent to the newer King's Bay facility. The upgrade will ensure consistency and continuity in support of the Fleet. Additionally the three new Ohio Class Submarines delivered in FY 1989 and FY 1990 to the fleet require additional engineering support because these submarines will be D-5 configured. Previous Ohio Class Submarines were C-4 configured submarines. The introduction of the D-5 configuration will require engineering support for both configurations (C-4/D-5) until C-4 configurations are phased out at the turn of the century. All of these events necessitate increases in the following areas: Hull, Mechanical and Electrical Engineering Operational Services and Planning Yard efforts; TRIPER (TRIDENT Planned Equipment Replacement) Logistics; Noise Reduction Investigations; Class Command and Control System Maintenance Factors; and TRIDENT Training Facility support. Due to an increased emphasis in quality control and safety, additional requirements have been instituted to ensure safe operation of TRIDENT submarines. Program increases required are: Submarine Safety (SUBSAFE) quality assurance programs, the TRIDENT Refit Improvement Program, and TRIDENT Planned Equipment Replacement Repair.

5. Program Decreases

A. Other Program Decreases in FY 1990

- 1) TRICCSMA - Decrease is due to termination of TRIDENT Data Extraction Tape System support; termination of Non-Engineering and Integration Information Research Management development efforts; termination of Engineering and

-7,880

(-7,880)

-2,721

Activity Group:
TRIDENT Mission Support (cont'd)

integration information research management development efforts; one less direct workyear for Command and Control Systems (CCS) Maintenance; and reduction of logistics, engineering and technical services at both King's Bay and Bangor Detachments.

-5,159

- 2) TRIDENT INTERMEDIATE MAINTENANCE - Non-TRIPER (TRIDENT Planned Equipment Replacement Repair) decreases the number of repairs and refurbishments analyzed and scheduled. CCS Class Improvement decreases due to UYK-7/43 transition nearing completion. Other decreases are due to reduced workload in Trident SSBN Integrated logistic support.

6. FY 1990 President's Budget Request

\$99,520

7. Pricing Adjustments

3,063

- A. Annualization of FY 1990 Direct Pay Raises
 - 1) Classified (31) 31
- B. FY 1991 Direct Pay Raises (126) 126
- D. Industrial Fund Rates (646) (646)
- E. Other Pricing Adjustments (2,260) (2,260)

8. Functional Program Transfers

14,874

(15,574)

- A. Transfers-In
 - 1) Intra-Appropriation
 - a) TRIDENT INTERMEDIATE MAINTENANCE - Transfer of the Trident Refit Facility/Trident Training Facility program from the Strategic Systems Program Office (SSPO). Functions in this transfer include Logistics Support Assessment, King's Bay Trainer Acquisition/Installation, Trident I & II Training Curricula, and Bangor Logistics Support Assessment.

15,574

Activity Group:
TRIDENT Mission Support (cont'd)

B. Transfers Out

(-700)

- 1) Intra-Appropriation
 a) TRIDENT INTERMEDIATE MAINTENANCE - Functional
 Transfer of resources to Budget Activity 7,
 Central Supply and Maintenance, to reflect the
 conversion of contracted advisory and
 assistance services to in-house performance to
 reduce the risk of compromise to the
 acquisition procurement process. Recent
 examination by the Naval Investigative Service
 and by the Navy Inspector General have shown
 that excessive contractor involvement contains
 the potential for disclosure of sensitive
 information and improper preparation of
 specifications or processing of procurement
 documentation.

-700

9. Program Increases

A. One-Time FY 1991 Costs

- 1) TRICCSMA - Adjustment for an extra day in FY 1991
 and average grade change.

40

40

B. Other Program Growth in FY 1991

(8,713)
 8,713

8,753

- 2) TRIDENT INTERMEDIATE MAINTENANCE - In FY 1991, one
 new submarine as well as maintenance schedules for
 existing Ohio Class Submarines create requirements
 for increases in the following areas: Hull,
 Mechanical and Electrical Operational Services and
 Planning Yard programs; TRIPER (TRIDENT Planned
 Equipment Replacement) Logistics; Noise Reduction
 investigations; and Command and Control Systems
 Maintenance Factors. Additional increases are due
 to the TRIDENT Refit Improvement program becoming
 fully operational in FY 1991.

Activity Group:
TRIDENT Mission Support (cont'd)

-964

10. Program Decreases

A. Other Program Decreases in FY 1991

- 1) TRJCCSMA - Reduction of logistics, engineering and technical services for configuration management and certification of logistics packages.
- 2) TRIDENT INTERMEDIATE MAINTENANCE - Decreased effort Non-TRIPER Repair decreases efforts and reduction of logistics, engineering and technical services for configuration management and certification of logistics packages.

(-964)
-316

-648

\$125,246

11. FY 1991 President's Budget Request

Activity Group:
TRIDENT Mission Support (cont'd)

III. PERFORMANCE CRITERIA.

A. TRIDENT SUBMARINE MISSION SUPPORT

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$(000)	Units	\$(000)	Units	\$(000)	Units	\$(000)	Units
Total Funding	70,590		67,859		78,667		104,077	
1) HM&E Eng Operational Service	4,667		3,710		4,651		5,927	
No. of Tasks		35		30		38		49
Equip Failure Res Analysis		37		32		40		51
Equip Change Analysis		66		57		73		92
Work Years		67		60		76		97
2) Planning Yard	6,237		6,237		7,730		8,250	
Trouble Failure Res Analysis Req		3,000		3,000		3,718		3,968
Field Eng Prog Analysis/Res Req		500		500		619		661
Refit Work Accomplishment Summaries		32		32		40		42
Work Years		82		82		102		109
3) NON-TRIDENT Planned Equip Repair	7,569		7,796		6,255		6,007	
No. of Planned, Dev, & Scheduled		484		589		473		455
Refurb Analyzed & Scheduled		79		65		52		50
Work Years		144		152		122		117
4) Alteration Program	1,776		2,003		2,091		2,103	
Alts Plnd, Dev, & Sched for DAP		3		1		1		1
Alts Plnd, Dev, & Sched for Refit		52		58		73		73
Work Years		23		25		31		32
5) TRIDENT Planned Equip Repair Log	2,380		2,627		3,037		3,315	
Inventory Mgt Ctrl Actions		441		501		563		615
Work Years		43		48		55		60

Activity Group:
TRIDENT Mission Support (cont'd)

6) Reliability Maintenance	5,344	2,917	3,169	3,171	
Dev & Incomp Mnt Plan Rev	142	79	224	82	
Config Change Eval	44	25	71	26	
Sys Elements Analyzed & Monitored	22	12	33	12	
Document Change Evaluations	407	227	640	235	
Work Years	75	43	45	44	
7) Noise Reduction	647	596	949	1,243	
# Investigations	2	2	2	2	
Mid-Cycle Acoustic Trials (# of Hulls)	1	1	2	2	
Pre-Depot Availability Planning Trials				1	
Work Years	6	6	6	5	
8) Command and Control Systems Maint Factors	31,681	28,442	36,835	41,516	
Failure Trend Analyses					
via Data Extraction					
Tape Reviews	1,548	1,569	1,792	1,652	
Review of Patrol Data	117	119	136	127	
Pkgs to determine Work Pkgs					
Analyses & Resolution of					
Trident CCS Prob Reports	5,149	5,082	5,959	5,439	
TRIDENT CCS Hardware/Software chngs	34	34	40	37	
Temp Eng Chngs to Resolve					
Priority Changes	128	129	147	136	
Sonar/Defensive Weapons Sub-Systems				2	
Upgrade Planning/Exec Hulls Supported					
Analyses & Resolution of					
Deficiencies & Prob Reports	79	61	87	79	
Required Engineering Action	1,344	745	1,477	1,345	
Acq Temp Eng Chngs Processed	20	16	23	20	
System/Subsystem Liaison Act Reqsts	413	203	457	416	
Correction of Operational Test and					
Evaluation Force Deficiencies	36	27	40	36	
9) Performance Monitor	941	1,676	0	0	
Total Ship Systems Monitored	151	209			
End of Refit Reports Analyzed	11	15			
Ship Operating Months	32	44			
TRIPER components analyzed	27	37			
Work Years	12	21			

Activity Group:
TRIDENT Mission Support (cont'd)

10) Command and Control Systems Class Improvement Systems Workyears	1,839	4,875	1,865	2,524	
		5	11	4	6
		15	39	15	20
11) ILS Eng Support (WY)	310	3	110	381	0
12) HM&E Eng/Acoustical Tonals (WY)	3,721	47	3,702	4,002	4,529
			46	50	57
13) HM&E Class Improvement (WY)	552	8	129	194	148
			2	3	3
14) Industrial Plant Equip	200	-	166	293	271
15) Trident SSBN ILS (WY)	1,463	17	1,463	1,170	4,019
			17	13	43
16) TRIDENT Training Facility Bangor Life Cycle Support	1,263		1,410	1,958	
17) Submarine Safety/Quality Assurance WORKYEARS Audits Documentation: Liaison Action Requests Manual Change			1,862	1,912	24
				24	9
				250	250
				1	1
18) TRIDENT Refit Facility Improvement Program			870	1,130	
19) TRIPER Repair			1,355	3,600	
20) Engineering Operational Trainers Life Cycle				14,412	

Activity Group:
TRIDENT Mission Support (cont'd)

B. TRICCSMA MISSION SUPPORT

	FY 1988	FY 1989	FY 1990	FY 1991
	\$ (000)	Units	\$ (000)	Units
Total Funding	22,441	22,824	20,853	21,169
Direct Funded	5,885	6,204	6,319	6,516
Salaries/Benefits (WY)	150	147	146	146
Mission Support	2,528	2,711	2,762	2,849
Logistics, Eng/Tech Services	11,773	13,909	11,772	11,804
Land Based Evaluation Facility Relocation Support (MILCON) Proj P-042)	2,255	0	0	0
Problem Reports Requiring Engineering Action	1,360	1,590	1,592	1,547
TRIDENT CCS Modifications & Temporary Eng. Changes (TEC) Installed	206	241	241	234
Command and Control System Hardware & CCS Documents Under Active Configuration Mgmt. (000's)	1,954	2,015	2,076	2,136

IV. Personnel Summary:

End Strength (E/S)

	FY 1988	FY 1989	FY 1990	FY 1991
A. Military	17	20	20	20
Officer	8	7	7	7
Enlisted	9	13	13	13
B. Civilian	147	149	149	149
USDH	147	149	149	149

Department of the Navy
Operations & Maintenance, Navy

Activity Group: Strategic Weapons Systems
Budget Activity: I Strategic Forces

I. Description of Operations Financed.

The Strategic Systems Programs (SSP) is responsible for the operational readiness and reliability of the strategic weapons systems aboard the fleet ballistic missile submarines (SSBNs) that constitute the Navy's strategic deterrent forces. Forces currently supported are the POSEIDON and C-4 Backfit SSBNs deployed in the Atlantic and the TRIDENT I SSBNs deployed in the Pacific. SSP is also responsible for all planning and other efforts required for support of the TRIDENT II weapons system currently being developed. The TRIDENT II weapons system is scheduled for deployment in FY 1990. Strategic Weapons Systems funding provides for the following categories of requirements:

- A. Strategic Weapons Systems Support. A strategic weapons system consists of the launcher, fire control, navigation, test instrumentation, missile, missile checkout, and guidance subsystems. Funding provides support for all subsystem equipment aboard POSEIDON, C-4 Backfit and TRIDENT SSBNs and at shore facilities. Efforts funded include: maintenance for subsystem equipment aboard SSBNs; equipment renewal and updating during overhauls; repair of failed components; logistics control procedures; operational flight testing; support of crew training; technical services required to test, analyze and maintain reliability of the weapons system; missile maintenance operations at missile processing facilities; targeting support; Navy navigation satellite system support; and the operating expenses of field activities and headquarters.
- B. Surface Support Ships. Efforts funded include engineering services, repair efforts and weapons system overhaul requirements necessary for surface vessels to support the POSEIDON, C-4 Backfit and TRIDENT programs. Surface ships supporting these programs include the USNS REDSTONE (TAGM-20), the USNS RANGE SENTINEL (TAGM-22) and the USNS POINT LOMA (AGDS-2), utilized to gather test data during operational flight tests, and the four tenders which serve as second level repair facilities and supply ships for POSEIDON and C-4 Backfit submarines.
- C. TRIDENT Systems Support. Provides for TRIDENT systems support costs not uniquely identifiable to the submarine or the strategic weapons system. Specific efforts include: facility planning, industrial engineering, outfitting, equipment installation and checkout, and other efforts required for development and activation of the Naval Submarine Base, Kings Bay; operation and maintenance of the TRIDENT Logistics Data System; TRIDENT training curricula development and support, and systems design and hardware/software

Activity Group:
Strategic Weapons Systems (cont'd)

acquisition and planning for the TRIDENT Training Facility to be located at Kings Bay; development and implementation of an integrated TRIDENT Logistics support assessment system; and the operating expenses for the TRIDENT Refit Facility and TRIDENT Training Facility at Kings Bay.

D. Transition of Kings Bay Facilities. SSP has functionally transferred the funding for operating the TRIDENT Training Facility and TRIDENT Refit Facility at Kings Bay to Chief of Naval Education and Training (CNET) and Commander in Chief, Atlantic (CINCLANT), respectively, for FY 1991.

II. Financial Summary (Dollars in Thousands) .

A. Sub-Activity Group Breakout:

	FY 1989				FY 1990	FY 1991
	FY 1988	Amended	Appro-	Current	Budget	Budget
	Actual	Pres.	priation	Estimate	Request	Request
TRIDENT Weapons System	103,038	112,018	112,018	112,098	95,745	0
Strategic Weapons System	622,105	667,979	630,084	627,370	796,293	930,343
FBM Support Ships	8,931	10,857	10,857	10,857	7,812	8,545
TOTAL-Strategic Weapons Sys	734,074	790,854	759,455	750,325	899,850	938,888

Amount

\$750,325

23,762

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate	
2. Pricing Adjustments	
A. Annualization of FY 1989 4.1% Pay Raise	(1,950)
1) Classified	767
2) Wage Board	1,183
B. FY 1990 Direct Pay Raise	(1,054)
1) Classified	1,009
2) Wage Board	45
C. Stock Fund Rates	(-4)
1) Non-Fuel	-4
D. Industrial Fund Rates	(1,091)
E. Other Pricing Adjustments	(19,671)

3. Functional Program Transfers		
A. Transfers out		-12,565
1) Intra-Appropriation		
a) Adjustment reflects the transfer of resources to correct improperly aligned reimbursable workload at the Naval Supply Centers and Ship Parts Control Center. Efforts associated with this adjustment were financed reimbursable. However, these efforts are within the mission responsibilities of the Naval Supply Centers and Ship Parts Control Center. Therefore, these efforts should be funded as direct mission and not on a reimbursable basis.	(-12,512) -12,512 -12,512	
2) Inter-Appropriation		
a) Transfer to the O&M, Army appropriation to support the Defense Systems Management College, which will oversee the DoD education and training program for the acquisition work force.	(-53) -53	
4. Program Increases		202,575
A. Annualization of FY 1989 Increases	(569)	
1) Increased workyears in TRIDENT Systems Support as a result of a 31 end strength transfer of crane operators and riggers from SUBASE, Kings Bay Base Operations Support during FY 1989.		
B. Other Program Increases in FY 1990	(202,006) 6,618	
1) Personnel Costs - Increased salaries, benefits, and travel costs to support additional personnel at the TRIDENT Refit Facility (TRF), TRIDENT Training Facility (TRF), and Strategic Weapons Facility (SWFLANT) at Kings Bay, GA. Salaries and benefits increase as TRF, TRF, and SWFLANT civilian end strengths increase 161, 2, and 9, respectively, to support the TRIDENT II (D-5) Strategic Weapon System.		
2) Operational and Engineering Support	187,564	
a) Increases in resources are required to	33,450	

establish targeting support and accuracy evaluation/maintenance programs for the TRIDENT II (D-5) Weapons System which begins operations in FY 1990. Targeting support is required for D-5 as prescribed by the Joint Chiefs of Staff. Accuracy evaluation and accuracy maintenance programs begin in FY 1990 to ensure that the D-5 meets the operational requirement of reducing the Circular Error Probable (CEP). These programs are designed to evaluate system accuracy and to resolve problems or determine solutions with weapons systems and equipments in deployed ships or at shore base facilities, in order that TRIDENT Weapon System accuracy is maintained.

- b) Increases in resources are necessary to provide 21,532 logistics support for the TRIDENT II (D-5) weapons system which begins operations in FY 1990. The increases reflect the beginning of the collection and analysis of usage data; maintenance of allowance documentation; analysis of supply effectiveness as well as the repair of equipment and components returned from deployed D-5 submarine.
- c) Increase in resources are required to begin 52,832 performance evaluation of the D-5 weapons system. Performance evaluation identifies deficiencies in design, operating procedures or maintenance operations which reduce, or are potentially capable of reducing strategic weapons systems readiness or reliability. Included in this function is the planning for flight test operations (which begin in FY 1991); the collection, recording and evaluation of equipment and system data from deployed SSBNs, maintenance facilities and missile processing facilities.
- d) Increase in resources are required to begin 10,985

surveillance on deployed D-5 equipment and components. Surveillance is designed to determine and evaluate the service life characteristics and the effect of the service environment on life and performance of equipments and components. Surveillance covers the inspection, evaluation and test of components, assemblies or systems aboard deployed ships, at training activities, maintenance facilities, test sites, missile facilities, contractor facilities and the supply system.

68,765

- e) Increase in resources are required to provide the engineering support for reliability maintenance for the deployed D-5 weapon system. Reliability maintenance assures the operational forces of responsive attention to matters that effect their ability to meet readiness and reliability objectives. The efforts which begin in FY 1990 to support deployed D-5 missiles and equipment include: preliminary design of alterations/changes to missiles and equipment, system integration, review and updating of design documentation, services to support calibration, comprehensive configuration control including analysis and review of proposed changes and support to test and proof changes (SPALTS).

3,051

- 3) Missile Processing - Increased contractor field engineering, contractor support, and other operating costs for the Strategic Weapons Facility, Atlantic in support of the TRIDENT II (D-5) Strategic Weapon System.

4,773

- 4) Training Support - Increased training materials acquisition, field engineering, and technical support of weapons & navigation trainers in support of the TRIDENT II (D-5) Strategic Weapon System.

Activity Group:
Strategic Weapons Systems (cont'd)

5. Program Decreases			
A. Other Program Decreases in FY 1990			-64,247
1) Operational and Engineering Support - Reduced operational and engineering support for C3/C4 Strategic Weapons Systems in the areas of problem investigation, analysis and correction. Decrease represents an acceptable level of risk to the Strategic Forces.	(-64,247)		
2) TRIDENT System Support - Reduced outfitting, equipment installation and acceptance testing for the TRIDENT Refit Facility and TRIDENT Training Facility, Kings Bay, GA.	-26,739		
3) Surface Support Ships - Decreased funding due to completion of SRA in FY 1989 and phase down of instrumentation for T-AGM C3/C4 support.	-3,425		
4) Personnel - Decreased funding due to implementation of Most Efficient Organization (MEO) and Commercial Activities (CA) Contract studies at the Polaris Missile Facility, Atlantic.	-61		
6. FY 1990 President's Budget Request			\$899,850
7. Pricing Adjustments			26,484
A. Annualization of FY 1990 Pay Raise	(1,445)		
1) Classified	1029		
2) Wage Board	416		
B. FY 1991 Direct Pay Raise	(1,715)		
1) Classified	1,640		
2) Wage Board	75		
C. Stock Fund	(42)		
1) Non-Fuel	42		
D. Industrial Fund Rates	(1,868)		
E. Other Pricing Adjustments	(21,414)		
8. Functional Program Transfers			-94,675
A. Transfers out	(-94,675)		
1) Intra-Appropriation	-94,675		
a) Transfer of SUBASE Kings Bay to CINCLANT	-86,355		

Activity Group:
Strategic Weapons Systems (cont'd)

(-11,510); TRIREFAC Kings Bay to CINCLANT
(-55,279); TRITRAFAC Kings Bay to CNET
(-3,992); and TRIDENT program support to
NAVSEA (-15,574).
b) Transfer of funds to Defense Mapping Agency for
gravity mapping. -8,320

158,684

9. Program Increases

A. One-Time FY 1991 Costs

- 1) Increase of one civilian work day from
FY 1990 to FY 1991

(366)
366

B. Other Program Increases in FY 1991

- 1) Increased salaries, benefits, and travel
costs to support additional personnel at the
TRIDENT Refit Facility (TRF), TRIDENT Training
Facility (TTF), and Strategic Weapons Facility
(SWFLANT) at Kings Bay, GA. Salaries and benefits
increase as TRF, TTF and SWFLANT civilian end
strengths increase 159, 1, and 1 respectively, to
support the TRIDENT II (D-5) Strategic Weapon
System.

(158,318)
5,250

2) Operational and Engineering Support

(148,534)
20,776

- a) Increases in resources are required to fund
for the collection and analysis of accuracy
data generated during flight tests which begin
in FY 1991.
b) Increases in resources are necessary to provide
logistic support and repair equipment and
components returned from additional deployed
D-5 submarines.
c) An increase in resources is required for
performance evaluation to conduct initial D-5
flight test operations and begin data
collection and analysis of flight test data.
d) An increase in resources is required to perform
surveillance on D-5 by conducting service life
evaluation on missiles returned from the
operational environment.
e) An increase is required for reliability

20,318

42,796

6,695

47,874

Activity Group:
Strategic Weapons Systems (cont'd)

maintenance for the TRIDENT II (D-5) weapon system. This reflects both the increase in the number of operational submarines and shore facilities in FY 1991, and the effort to identify solutions to problems discovered during the initial operational years of a new weapons system to maintain readiness and reliability of that new weapon system.

- f) Resources are required to begin advance planning for D-5 Backfit efforts. (10,075)
- 3) Missile Processing - Increased contractor field engineering, contractor support, and other operating costs for the Strategic Weapons Facility, Atlantic in support of the TRIDENT II (D-5) Strategic Weapon System. (4,043)
- 4) Surface Support Ships - Increased funds are required to support AS-31 dockside selected restricted availability. (491)

10. Program Decreases

A. Other Program Decreases in FY 1991

- 1) Operational and Engineering Support - Reduced operational and engineering support for C3/C4 Strategic Weapons Systems in the areas of problem investigation, analysis and correction. Decrease represents an acceptable level of risk to the Strategic Forces. (-51,455)
- 2) Training Support - Reduced support as the initial acquisition of training materials for TRIDENT II was completed in prior years. -13,829
- 3) Missile Processing - Reductions to C3 efforts in missile support contracts. -3,124
- 4) TRIDENT Systems Support - Outfitting, equipment installation and acceptance testing for the Kings Bay, GA facilities completed in prior years. -1,985
- 5) Personnel - Annualization of FY 1990 MEO and contract savings plus additional savings. -32,421

-51,455

-96

Activity Group:
Strategic Weapons Systems (cont'd)

11. FY 1991 President's Budget Request

\$938,888

III. Performance Criteria.

FY 1983 FY 1989 FY 1990 FY 1991

A. OPERATIONAL SUPPORT

(Deployed Shipmonths)

SSBN (POSEIDON)	136	130	136	132
SSBN (C-4 BACKFIT)	108	134	144	144
SSBN (TRIDENT C-4)	96	96	96	96
SSBN (TRIDENT D-5)	-	-	14	34
TENDER	36*	34*	36*	36*

* Excludes AS-31 support of SSNs.

B. MISSILE PROCESSING

POSEIDON (C3)

(POMFLANT)

C-4 BACKFIT (C-4)

(POMFLANT)

TRIDENT (C-4) (SWEPAC)

TRIDENT (D-5) (SWFLANT)

POSEIDON (C3)	112	116	99	77
C-4 BACKFIT (C-4)	93	50	96	87
TRIDENT (C-4) (SWEPAC)	66	68	64	71
TRIDENT (D-5) (SWFLANT)	0	0	17	42

C. WEAPON SYSTEM OFFLINE SUPPORT

(MONTHS)

POSEIDON Overhauls

C-4 BACKFIT Overhauls

Tender Overhauls

POSEIDON Overhauls	49	37	2	0
C-4 BACKFIT Overhauls	36	10	0	0
Tender Overhauls	0	2	0	4

D. OVERHAUL STARTS

E. TRIDENT REFITS

Bangor (C-4)

Kings Bay (D-5)

OVERHAUL STARTS	0	0	0	0
TRIDENT REFITS				
Bangor (C-4)	30	28	31	32
Kings Bay (D-5)	0	0	5	9

Audit Savings Incorporated in Budget Request (\$ in thousands)

AUDIT # TYPE TITLE

018-S-88 NAS CA Review of storage

and warehousing at POMFLANT

-33 -34

Activity Group:
Strategic Weapons Systems (cont'd)

IV. Personnel Summary:

End Strength (E/S)

A. Military
Officer
Enlisted

B. Civilian
USDH

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	934	1,972	1,973	709
	<u>221</u>	<u>307</u>	<u>308</u>	<u>179</u>
	713	1,665	1,665	530
	<u>2,616</u>	<u>2,758</u>	<u>2,920</u>	<u>2,004</u>
	2,616	2,758	2,920	2,004

Department of the Navy
Operation & Maintenance, Navy

Activity Group: FPM Ship Operations
Budget Activity: I Strategic Forces

I. Description of Operations Financed.

This program provides a fleet of 35 Strategic submarines in FY 1990 and FY 1991 as the launch platform for the undersea strategic missile system. The submarines, together with four submarine tenders, related service craft, and four chartered ships are operationally supported in this program. Operational expenses include:

Fuel - includes ship propulsion fuel to operate the main plant/engines of the conventionally powered ships, auxiliary equipment, and small boats, and small quantities of fossil fuel used in auxiliary diesel engines of nuclear submarines. The major portion of fuel is used by the tenders while in port to support ships' power and heating needs, as well as hotel services to submarines that are moored alongside during periods of intermediate maintenance.

Utilities - includes the cost of steam, electricity, water, sewage treatment and other utilities (excluding telephone and garbage removal) incurred by FPM submarines and support ships while in port.

Supplies and Equipage (S&E) - includes expenses of repair parts and other operating target (OPTAR):

Repair parts - includes all repair related consumables required to accomplish organizational level equipment maintenance. Organizational level maintenance is that corrective and preventive maintenance accomplished by the ship's crew.

Other operating target (OPTAR) - includes administrative and housekeeping items; items having a limited life such as lubricants, boiler compound and bilge cleaner; devices such as power tools, office machines, duplicators; General Purpose Test Equipment (GPETE); Automated Data Processing (ADP) requirements; the cost of tugs, pilotage, and other related services provided by commercial or other non-naval forces; and the cost of material purchased for medical and dental purposes.

ACTIVITY GROUP: FBM Ship Operations (Cont'd)

Leaseback (Charter) - includes two FBM cargo ships (T-AK) and a Range Instrument ship (T-AGM), and a Auxiliary Deep Submergence Support Ship (T-AGDS) leased from the Military Sealift Command (MSC). The T-AKs provide regularly scheduled service to the FBM replenishment sites in Holy Loch, Scotland, Charleston, South Carolina and Kings Bay, Georgia. The T-AGM provides range safety (destruction) tracking, surveillance, communication and other services, such as monitoring the demonstration and shutdown operations of new SSBNs, as well as monitoring firings following SSBN overhaul. Costs include maritime crew salaries, fuel, ship repairs, supplies and equipment and administrative expenses.

II. Financial Summary (Dollars in Thousands) -

A. Sub-Activity Group Breakout.

	FY 1989			FY 1990		FY 1991	
	FY 1988 Actual	Amended Pres. Budget	Appro- piation	Current Estimate	Budget Request	Budget Request	
Fuel	6,044	4,131	4,007	4,131	2,861	2,932	
Utilities	5,864	8,372	8,366	7,508	7,345	7,110	
Repair Parts	33,614	31,967	31,462	31,393	33,150	32,877	
Other OPTAR	30,060	29,868	29,359	29,551	30,196	32,849	
MSC Charter	26,295	32,339	32,287	32,287	25,430	24,366	
Total Act. Group	101,877	106,677	105,481	104,870	98,982	100,134	

Amount

104,870
-6,598

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate

2. Pricing Adjustments

a. Stock Fund	(-277)
(1) Fuel	-552
(2) Non-Fuel	275
b. Industrial Fund Pates	(-6,626)

c. Other Pricing Adjustments	(305)	
3. Program Increases		5,246
a. Annualization of FY 1989 Increases	(1,928)	
1) Delivery of two new Trident submarines (SSBN 734 and SSBN 735) for which a full ship year is required in FY 1990.	1,928	
b. Other Program Growth in FY 1990	(3,318)	
1) Delivery of one new construction Trident submarine (SSBN 736).	701	
2) Increase in on-board repair parts support for Trident nuclear and weapons systems preservation and maintenance. Some Trident submarines are approaching ten years in age and recent historical demand indicates the need for increased funding to maintain appropriate levels of critical on-board spares to ensure strategic readiness.	2,401	
3) Increased support for consumable loadouts for strategic patrols, pier-side utilities, and phased replacement of firefighting, lifesaving and personnel safety equipment.	161	
4) Increase for new shipboard physical security equipments, including walk-through and hand held metal detectors for SSBN's and submarine tenders.	55	
4. Program Decreases		-4,536
a. Annualization of FY 1989 Decreases.	(-1,574)	
1) Retirement of three Poseidon submarines (SSBN's 619, 620, and 635) in FY 1989.	-1,574	
b. Other Program Decreases in FY 1990.	(-2,962)	
1) Retirement of two Poseidon class submarines (SSBN 622 and SSBN 625) in FY 1990.	-1,049	
2) Decrease in fuel and pier-side utilities expenses for AS 32, AS 33, and AS 34 while undergoing repair availabilities in FY 1990.	-1,707	
3) Decrease in optar and repair parts costs due	-206	

ACTIVITY GROUP: FIM Ship Operations (Cont'd)

projected efficiencies to be achieved in the management and turn-in of excess supplies and materials.

5. FY 1990 President's Budget Request 98,982

6. Price Growth 316

a. Stock Fund	(909)
1) Fuel	149
2) Non-Fuel	760
b. Industrial Fund Rates	(-904)
c. Other Pricing Adjustments	(311)

7. Program Increases 3,977

a. Annualization of FY 1990 Increases	(873)
1) Delivery of one new Trident submarine (SSBN 736) for which a full ship year is required in FY 1991.	873
b. Other Program Growth in FY 1991.	(3,104)
1) Delivery of one new construction Trident submarine (SSBN 737).	1,163
2) Increased support for consumable loadouts for strategic patrols, purchase of direct turnover materials required to perform preventative and corrective organizational level maintenance, and phased replacement of aging safety related equipage items such as mooring lines, life jackets, fire hoses and other damage control equipment.	890
3) Phased purchase of special items required for SSBN and AS physical security programs, including non-intrusion hand-held security radios, ion track explosive detectors, office alarms, and ballistic vests.	1,051

8. Program Decreases -3,141

a. Annualization of FY 1990 decreases.	(-1,023)

ACTIVITY GROUP: FBM Ship Operations (Cont' d)

- 1) Retirement of two Poseidon submarines (SSBN 622 and SSBN 625) in FY 1990. -1,023
- b. Other Program Decreases in FY 1991. (-2,118)
- 1) Retirement of one Poseidon submarine -523
- 2) Program reductions to purchased utilities (SSBN 626) in FY 1991. -1,595
- and stock fund purchases to support increased funding for higher priority safety, firefighting and physical security programs.

100,134

9. FY 1991 OSD/OMB Budget Request

III. Performance Criteria.

	FY 1988	FY 1989	FY 1990	FY 1991
Ship Inventory				
Conventional	41	40	39	39
Nuclear	4	4	4	4
Ship Years Supported				
Conventional	37	36	35	35
Nuclear	41	40.4	39.4	39.3
Ship Operating Months Supported				
Conventional	41	4.0	4.0	4.0
Nuclear	37	36.4	35.4	35.3
Underway Steaming Hours				
Conventional	410	447	455	451
Nuclear	44	48	40	40
Barrels of Fossil Fuel Required	366	399	415	411
Per Diem Days	167,454	181,122	185,817	184,266
MSC Charter Inventory	2,013	1,841	2,004	2,004
	165,441	179,281	183,813	182,262
	220,587	150,147	120,451	117,151
	1,464	1,460	1,460	1,460
	4	4	4	4

1/ Nearly all of the fossil fuel funded in this budget activity is consumed by four submarine tenders that steam extensively inport in addition to their underway steaming requirements. In FY 1990 and FY 1991 three of these four tenders are scheduled for selected restricted availabilities. These availabilities will reduce their inport fuel and steaming hour requirements but will not affect their underway steaming hour requirements, which are driven by overseas deployment rotations and established underway training requirements for ships of this class.

IV. Personnel Summary.

<u>End Strength (E/S)</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY1990</u>	<u>FY1991</u>
A. <u>Military</u>	17,093	17,698	17,988	18,143
Officer	<u>1,333</u>	<u>1,361</u>	<u>1,324</u>	<u>1,331</u>
Enlisted	15,760	16,337	16,664	16,812

Department of the Navy
Operation and Maintenance, Navy

Activity Group: FBM Ship Maintenance
Budget Activity: I Strategic Forces

I. Description of Operations Financed

This program funds depot and intermediate level maintenance and modernization, initial outfitting and associated technical support for the strategic forces as follows:

Regular Overhaul of the ship is that maintenance performed by the shipyards on material requiring major overhaul, or complete rebuild of parts, assemblies, subassemblies and end items and correction of all discrepancies found during pre-overhaul tests and inspections or developed from maintenance history analysis. The repairs restore the ship, including all operating subsystems which affect safety or current combat capability, to established performance standards. Depot level repairs for the family of detection and tracking (unique) SONARS installed on SSBNs includes overhaul, refurbishment and certification of SONARS and interface equipment.

Restricted and Technical Availabilities (RA/TA). A Restricted Availability (RAV) is for the accomplishment of specific items of work by a repair activity, normally with the ship present, during which period the ship is rendered incapable of fully performing its assigned mission and tasks due to the nature of the repair work. A Technical Availability (TAV) is for the accomplishment of specific items of work by a repair activity, normally with the ship not present, during which period the ship's ability to fully perform its assigned mission and tasks is not affected by the nature of the repair work. RA/TA repairs include voyage repairs, selected restricted availabilities, phased maintenance availabilities, repairs during post shakedown availabilities for new units and various other miscellaneous type repairs.

Fleet Modernization Program. The strategic forces portion of the Fleet Modernization Program provides for the modernization of the POSEIDON and TRIDENT submarines, FBM submarine tenders and strategic support ships. It funds the preliminary design, preparation of blueprints and associated documents, installation of equipment, and updating of ship records. Installation is accomplished during overhaul, at a forward site, or in conjunction with a restricted or technical availability.

Specifically, the FY 1990 and FY 1991 programs will fund improvements in SSBN primary mission areas, including noise reduction, silencing alterations and sonar improvements which are designed to ensure the defensive acoustic advantage of SSBNs. The program of installing small but high priority mission alterations during SSBN refit periods continues. This program uses industrial teams to install alterations during the extended SSBN operational cycle, which can be as long as 12 years.

Outfitting. The outfitting program provides non-aviation initial and follow-on outfitting support for active ships and other selected or unique outfitting programs as required. Support is provided for outfitting and allowance changes resulting from installation of new equipment, modification of equipment, special equipage programs, revision of allowance parts lists and allowance equipage lists, modification of allowance computation rules, and other approved allowance changes. In FY 1989, the Outfitting program is transferred to the Other Procurement, Navy (OPN) appropriation which is consistent with the funding methodology for other initial and follow-on outfitting requirements, as well as Congressional direction in the FY 1989 DOD Appropriation Bill.

Intermediate Level Maintenance is that maintenance which is normally performed by Navy personnel on tenders and repair ships, or at Fleet support bases. It normally consists of calibration, repair or replacement of damaged or unserviceable parts, components or assemblies; the emergency manufacture of unavailable parts; and providing technical assistance to using organizations. IMAs are assigned to repair and test weight handling equipment, repair periscopes, electronic equipment and electric motors, overhaul diesel engines and provide such services as printing, photography, optical repairs, engraving, canvas work, strainer shield manufacture, and certain preventive maintenance actions. The principal components of the Fleet Ballistic Missile Force IMA establishment are the submarine tenders and the TRIDENT shore based facilities at Bangor, Washington and Kings Bay, Georgia.

Technical and Engineering Programs provide necessary support for submarines and SONARS subjected to longer operational intervals by the Submarine Engineered Operating Cycle (SEOC) program, including acoustic trials.

Inactivations provides funds to defuel, dismantle and dispose of ballistic missile submarines for various reasons including compliance with prevailing arms limitation agreements.

Activity Group: FBM Ship Maintenance (cont'd)

II. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout:

	FY 1989				FY 1990 Budget Request	FY 1991 Budget Request
	FY 1988 Actual	Amended Pres. Budget	Appro- priation	Current Estimate		
Ship Overhauls	3,383	8,018	8,018	0	0	6,481
Restr./Tech. Avail	66,611	107,522	100,758	107,819	160,161	144,860
Fleet Modernization	16,525	31,948	30,910	30,882	21,273	19,762
Outfitting	16,022	22,095	0	0	0	0
Intermediate Maint.	90,450	88,922	84,239	90,355	99,016	159,790
Unique Sonars	20,126	24,301	23,691	18,165	10,059	10,867
SSBN Monitoring	14,930	14,188	13,828	10,733	11,960	11,618
Maint. Engrng	1,135	1,929	1,866	1,863	2,663	1,754
Inactivations	25,992	20,000	20,000	20,000	50,671	27,259
Total Activity Group	255,174	318,923	283,310	279,817	355,803	382,391

Amount
\$279,817

12,073

B. Reconciliation of Increases and Decreases

I. FY 1989 Current Estimate

2. Pricing Adjustments

A. Annualization of FY 1989 Direct Pay Raises

1) Classified

2) Wage Board

B. FY 1990 Direct Pay Raises

1) Classified

2) Wage Board

C. Stock Fund

2) Non-Fuel

D. Industrial Fund Rates

E. Other Pricing Adjustments

(467)
100
367
(443)
142
301
(-385)
-385
(8,267)
(3,281)

3. Functional Program Transfers	
A. Transfers In	(1,885)
1) Intra-appropriation	1,885
a) Realignment of TRIDENT Performance Monitoring Program from the TRIDENT Mission Support Activity Group to properly reflect TRIDENT and POSEIDON Performance Monitoring Programs in the same activity group.	
B. Transfers Out	(-1,203)
1) Intra-Appropriation	-103
a) This adjustment reflects the transfer of resources to Budget Activity 7 (Central Supply and Maintenance) to correct improperly aligned reimbursable workload at the Inventory Control Points. Efforts associated with this adjustment were being financed reimbursably even though these efforts are within the mission responsibility of the Inventory Control Points. This adjustment reflects transfer from reimbursable to direct mission funding.	
b) Transfer to Budget Activity 7 to reflect the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of compromise to the acquisition procurement process. Recent examination by the Naval Investigative Service and by the Navy Inspector General have shown that excessive contractor involvement contains the potential for disclosure of sensitive information and improper preparation of specifications or processing of procurement documentation.	-1,100

Activity Group: FIM Ship Maintenance (cont'd)

97,581

4. Program Increases

A. Other Program Growth in FY 1990	7,623
1) Increase in intermediate level maintenance to support periodic refurishment and replacement of TRIDENT equipments. As the submarines log more operational time, periodic replacement time arrives and equipment must be refurbished for replacement on other submarines.	54,002
2) Increase in the number of SRAs scheduled from 3 in FY 1989 to 8 in FY 1990.	1,500
3) Increase funds Post Shakedown Availabilities (PSAs) for USS TENNESSEE (SSBN 734), USS PENNSYLVANIA (SSBN 735), and USS WEST VIRGINIA (SSBN 736).	1,376
4) Increase in number of SSBN battery renewals from six in FY 1989 to eight in FY 1990.	235
5) Increase in requirement for replacement of habitability items on overseas service craft. Service craft requiring repairs increase from three in FY 1989 to seven in FY 1990.	107
6) Increase in emergent repairs supports additional TRIDENT shipyears in FY 1990	714
7) Increase required to conduct two additional SSBN acoustic trials in in FY 1990.	29,051
8) Increase required to fund one additional SSBN inactivation, two tow package installations and planning in preparation for ocean towing to wet storage, missile compartment dismantlement and disposal, and reactor compartment (RC) disposal planning for two RCs.	400
9) Increase required for SSBN unique and related sonar refurishment based on the scheduling of three additional SSBN extended refits. (ERAS) in FY 1990. (Total of 12 Sonar Refurbishments)	157
10) Increase required for additional planning workyears in the Submarine Engineered Operating Cycle (SEOC) program.	

Activity Group: FEM Ship Maintenance (cont'd)

11) Installation of SNAP II AN/UYK-62(v)1 SHIPALT on one additional SSBN to provide a non-tactical shipboard ADP system.	684
12) Separate funding line requirements for SSBN nuclear alterations (NUCALTS), ordnance alterations (ORDALTS), and package alterations required to maintain operational reliability/maintainability.	1,732

-34,350

5. Program Decreases

A. One-Time FY 1989 Costs

(-3,945)

-1,205

1) Reduction results from requirement for an Interim Drydocking (IDD) of SSBN 626 in FY 1989 with no follow-on SSBN IDD in FY 1990.

-2,740

2) Starting in FY 1988, the SSBN Unique and Related Sonar program is transitioning its fleet support efforts (such as supply support, repair, training, engineering the site support) from five different Prime Contractors to one naval activity. Decrease reflects reduced FY 1989 efforts associated with this transition including: Lab relocation - inventory, inspection, packing, shipping and delivering to the In Service Engineering Agent (ISEA) for continued use in support of the program; Lab installation - the sonar support equipment received from the contractors will be installed at the ISEA; Shut down costs - support to inventory, inspect, determine disposition and ship all government owned hardware, software and documentation currently at the Prime Contractors being phased out of the program.

(-30,405)

-7,774

B. Other Program Decreases in FY 1990

1) Reduction in funding required for service craft overhauls due, primarily, to overhaul of AFDB 7 (drydock) in Holy Loch, Scotland.

Activity Group: FMS Ship Maintenance (cont'd)

-6,529

- 2) SSBN Unique and Related Sonar Program decreases reflect Fleet Engineering Support cost savings such as logistics engineering, reliability engineering and performance evaluation engineering associated with the transition from 5 Prime Contractors to 1 organic Navy Fleet support. Decreases also reflect 12 fewer sonar equipments requiring repair and no engineering change installations, overhauls or ready-for -service support scheduled in FY 1990.
- 3) Decreased SSBN Title R-Alt installations on aging SSBN fleet. -13,627
- 4) Decrease results from reduction in the number of Sea Trial Charters; and Steam Generator Inspections/Repairs required. -2,283
- 5) Decreased Design Services Allocation (DSA) requirements to support SSBN availabilities due to reduced future modernization requirements. -192

6. FY 1990 President's Budget Request

\$355,803

7. Pricing Adjustments

10,933

- A. Annualization of FY 1990 Direct Pay Raises (238)
 - 1) Classified 57
 - 2) Wage Board 181
- B. Foreign National Direct Hires (678)
 - FY 1991 Direct Pay Raises 215
 - 1) Classified 463
 - 2) Wage Board (610)
- C. Stock Fund 610
 - 1) Non-Fuel
- D. Industrial Fund Rates (6,526)
- E. Other Pricing Adjustments (2,881)

Activity Group: FPM Ship Maintenance (cont'd)

50,040

8. Functional Program Transfers

A. Transfers In

(50,040)

1) Intra-Appropriation

a) Reflects transfer of support for the Ship Intermediate Maintenance Activity (SIMA) at Kings Bay, Georgia from the Strategic Forces activity group. Realigns funding responsibility to the fleet to coincide with assignment of operational responsibility of the TRIDENT Refit Facility (TRF) now that the TRF is a fully operational fleet command.

50,040

22,111

9. Program Increases

A. Other Program Growth in FY 1991

6,461

1) Increase required for advance planning for USS OHIO (SSBN 726) overhaul in FY 1993.

8,765

2) Increase in intermediate level maintenance to support periodic refurbishment and replacement of TRIDENT equipments and an increase in amount of overall work being accomplished by the SIMAs; including docking restricted availabilities, industrial plant equipment refurbishment, and Ship alteration kit (SHIPALT TYKIT) installation.

701

3) Increase required for SSBN unique and related sonar refurbishment based on the scheduling of three additional SSBN extended refits (ERPs) in FY 1991 (Total of 12 Sonar Refurbishments)

489

4) Increase in number of ships monitored in FY 1991 increases requirement for maintenance documentation, performance data support, and material condition assessment.

2,523

5) Required safety (Halon Fire Extinguishing System) and operational (shore power, weapons storage, stores conveyor and A/C) alterations for submarine support ships and floating drydocks.

Activity Group: FMM Ship Maintenance (cont'd)

6) Increase for installation of ORDAITS required to maintain operational reliability/maintainability.	739
7) Increase in other planned KA/TA for TRIDENT submarines due to an increase of one Steam Generator Inspection.	2,413

-56,496

10. Program Decreases

A. Annualization of FY 1989 Decreases

1) Annualization of transfer of resources to Budget Activity 7 appropriations and accounts reflect the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of compromise to the acquisition procurement process. Recent examination by the Naval Investigative Service and by the Navy Inspector General have shown that excessive contractor involvement contains the potential for disclosure of sensitive information and improper preparation of specifications or processing of procurement documentation.	-1,400

B. Other Program Decreases in FY 1991

1) Reflects reduction in number of TRIDENT PSAs from three in FY 1990 to one in FY 1991.	-1,045
2) Decrease in number of SSBN battery renewals from eight in FY 1990 to four in FY 1991.	-3,247
3) Decrease results from two fewer mid-operating cycle acoustic trials required in FY 1991 than FY 1990.	-1,013
4) Decrease due to reduction in the number of tow package installation requirements, fewer missile compartment dismantlements and disposal, two less SSBN inactivations and reduced requirement for reactor core and hull disposal planning.	-25,287
5) Decrease results from change in the mix of service craft requiring overhaul in FY 1991 compared with FY 1990.	-1,883

Activity Group: FBM Ship Maintenance (cont'd)

- 6) Reduction in funding requirement based on a change in the mix of Selected Restricted Availabilities (SRAs) from FY 1990 to FY 1991. -14,904
- 7) Reduction in requirements for steam generator inspections, other planned RA/TA and emergent repairs for SSBNs. -2,249
- 8) Reduction in SSBN Title K-Alt package installations and associated MUCALTS and machinery alterations (MACHALTS). -4,535
- 9) Decreases in Design and Planning Yard Services for SSBNs and submarine support ships due to reduction in requirements for future Title K-Alt installations. -933

\$382,391

11. FY 1991 President's Budget Request

III. Performance Criteria

A. Ship Overhauls

The following depicts the regular overhaul program for fiscal years 1988 through 1991. No POSEIDON or TRIDENT overhauls are scheduled for FY 1988 through FY 1991. Although the overhaul is costed for the full term including advance preparation, only the portion applicable to the fiscal year appropriation appears with the ship in the induction year. Advance preparation costs are reflected in the appropriate O&M,N expense fiscal year.

Ship Type	FY 1988		FY 1989		FY 1990		FY 1991	
	Ships	\$M	Ships	\$M	Ships	\$M	Ships	\$M
SSBNs	0		0		0		0	
Tenders	0		0		0		0	
Advance		3.4		.0		.0		6.0
Funding-		.0		.0		.0		.5
AERP/PERA*								
Total Program	0	3.4	0	.0	0	.0	0	6.5

*Advanced Equipment Repair Program/Planning, Engineering Repair and Alteration represents preoverhaul effort/repairs accomplished outside the shipyard facilities and directly funded by the customer. preparation costs are reflected in the appropriate O&M,N expense fiscal year.

Activity Group: FPM Ship Maintenance (cont'd)

B. Restricted and Technical Availability. The resources required for voyage repairs are based on historical experience for each ship type and number of ships. Resources for planned availabilities are based on the schedule in each category. A summary of requirements follows:

Type of Repair	FY 1988		FY 1989		FY 1990		FY 1991	
	Ships	\$M	Ships	\$M	Ships	\$M	Ships	\$M
Voyage (op months)	410	9.8	447	12.2	455	13.0	451	13.4
Battery Renewals	7	1.9	6	4.5	8	6.2	4	3.2
SRAs	3	34.8	3	34.7	8	91.1	8	79.4
Habitability	6	2.4	3	.8	7	1.1	4	1.2
PSAs	0	0	0	0	3	1.5	1	.5
Service Craft								
Overhauls	0	4.3	4	35.8	2	29.3	8	28.2
Miscellaneous								
Availabilities		17.3		18.7		18.0		18.9
Interim Drydocking	0	0	1	1.1	0	0	0	0
Total		66.6		107.8		160.2		144.8

Activity Group: FPM Ship Maintenance (cont'd)

C. Fleet Modernization Program

(Dollars in Millions)

	<u>IMPOSED REQMTS.</u>	<u>MISSION</u>	<u>C3</u>	<u>HM&E</u>	<u>SAFE & NAV</u>	<u>HAB & PERS</u>	<u>PROGRAM SUPPORT</u>	<u>TOTAL \$</u>
<u>FY 1988</u>								
SUBMARINES	0	1.6	.4	.7	0	0	6.4	9.2
FPM SUPPORT SHIPS	0	0	.1	0	0	0	0	.1
SEPARATE FUNDING	0	7.2	0	0	0	0	.1	7.3
NET ADVANCE PLANNING								0
TOTAL FOR BA - 1 *	0	8.8	.5	.7	0	0	6.5	16.6

	<u>IMPOSED REQMTS.</u>	<u>MISSION</u>	<u>C3</u>	<u>HM&E</u>	<u>SAFE & NAV</u>	<u>HAB & PERS</u>	<u>PROGRAM SUPPORT</u>	<u>TOTAL \$</u>
<u>FY 1989</u>								
SUBMARINES	0	4.1	2.0	7.7	0	0	8.8	22.6
FPM SUPPORT SHIPS	0	0	0	.3	0	0	.8	1.1
SEPARATE FUNDING	0	6.7	.3	.3	0	0	0	7.3
NET ADVANCE PLANNING								-.1
TOTAL FOR BA - 1 *	0	10.8	2.3	8.2	0	0	9.6	30.9

* May not add due to rounding

Activity Group: FBM Ship Maintenance (cont'd)

	<u>IMPOSED REQMTS.</u>	<u>MISSION</u>	<u>C3</u>	<u>HM&E</u>	<u>SAFE & NAV</u>	<u>HAB & PERS</u>	<u>PROGRAM SUPPORT</u>	<u>TOTAL \$</u>
<u>FY 1990</u>								
SUBMARINES	0	.1	0	.9	0	0	11.1	12.0
FBM SUPPORT SHIPS	0	.1	0	0	0	0	.3	.4
SEPARATE FUNDING	0	9.0	.3	0	0	0	0	9.3
NET ADVANCE PLANNING								- .4
TOTAL FOR BA - 1 *	0	9.2	.3	.9	0	0	11.4	21.3

	<u>IMPOSED REQMTS.</u>	<u>MISSION</u>	<u>C3</u>	<u>HM&E</u>	<u>SAFE & NAV</u>	<u>HAB & PERS</u>	<u>PROGRAM SUPPORT</u>	<u>TOTAL \$</u>
<u>FY 1991</u>								
SUBMARINES	0	0	0	0	0	0	7.7	7.7
FBM SUPPORT SHIPS	0	.6	.4	1.2	.5	0	.2	2.9
SEPARATE FUNDING	0	8.8	.4	0	0	0	0	9.2
NET ADVANCE PLANNING								0
TOTAL FOR BA - 1 *	0	9.4	.8	1.2	.5	0	7.9	19.8

*May not add due to rounding.

Activity Group: FBM Ship Maintenance (cont'd)

D. Outfitting (\$000):

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Equipment Outfitting	5,177	0	0	0
COSAL Update	5,728	0	0	0
Equipage, Special Programs	1,355	0	0	0
Between Overhaul Changes	<u>3,762</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	16,022	0	0	0

E. Intermediate Maintenance. Funding provides for repair parts and materials for support of strategic submarines alongside the submarine tenders or at the refit facility, maintenance of the FBM submarine tenders and support for various related service craft, as follows:

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Productive Manyears Available	1,670.9	1,701	1,813	2,082
Workload Manyears*	<u>2,036.9</u>	<u>2,846</u>	<u>2,881</u>	<u>2,906</u>
Material Cost (\$000)	44,182	40,313	42,509	51,394
Contractor Industrial Support (\$000)	1,203	1,668	4,450	0
TRIPER Material (\$000)	7,212	9,007	11,115	65,817
TRIREFITFAC Operations (\$000)	<u>37,853</u>	<u>39,367</u>	<u>40,942</u>	<u>42,579</u>
Total (\$000)	90,450	90,355	99,016	159,790
*Includes TRIPER workload of:	71	90	110	140

F. Inactivations

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Number of Submarines inactivating	1	1	2	0

G. Technical and Engineering Support(1) SSBN Unique and Related Sonars:

Fleet Support Services	FY 1988	FY 1989	FY 1990	FY 1991
(No. of Sonar Sys)				
Sonar Installations	227	231	219	219
Sonar Refurbishments	6	9	0	0
Site Support (Manyyears)	12	12	24	36
Repairs (No. of Sonars)	5	3	3	3
Training Support	227	231	219	219
(No. of Sites)	0	4	4	4

(2) SSBN Ship System Maintenance Monitoring and Support Program

Test, Inspection & Maint. Doc. ⁽¹⁾	FY 1988	FY 1989	FY 1990	FY 1991
Sub. Systems Perf. Data Suppt. ⁽¹⁾	15	21	25	27
Material Condition Assessment/Impr. ⁽¹⁾	15	21	25	27
Engineered Operating Cycle ⁽²⁾	61	55	60	58

Note: ⁽¹⁾ Number of ships monitored.
⁽²⁾ Planning workyears

SSBN Acoustic Trials

	4	4	6	4

Activity Group: FBM Ship Maintenance (cont'd)

IV. Personnel Summary:

End Strength (E/S)

A. Military
Officer
Enlisted

678
42
636

783
44
739

784
44
740

784
44
740

B. Civilian
USDH

1,049
1,049

1,033
1,033

1,033
1,033

1,967
1,967

Department of the Navy
Operation and Maintenance, Navy

Activity Group: Strategic Communications.
Budget Activity: I Strategic Forces.

I. Description of Operations Financed

Fleet Ballistic Missile (FBM) Strategic Communications program provides support for operational and newly-introduced communications systems for the FBM forces. The program encompasses High Frequency (HF)/Very Low Frequency (VLF)/Low Frequency (LF) broadcast subsystems developed to provide improved reliability and certainty of message reception from the National Command Authority (NCA) to deployed FBM submarines; secure ship-to-ship communications, a method of communicating submarine loss or disability to shore locations; and a continuing evaluation program that ensures the effectiveness and readiness of the various systems.

The FBM Ship/Shore Communications program provides funds for engineering technical services and maintenance of deployed equipments and systems for shipboard and shore receiving sites. These services are provided from Naval and commercial industrial sources to support deployed and deploying shipboard systems and shore stations worldwide. Funding is included for repair of specifically designated communications equipment. Engineering technical services cover such tasks as: planning; monitoring production; conducting site surveys; reviewing operational tests; evaluating hardware modifications; working out detailed operational procedures for the communications systems; conducting a program to evaluate operational readiness of systems and equipments; preparing and updating operational mode programs; configuration management; station operation and equipment maintenance; calibration; and systems effectiveness engineering. Requirements are determined by the number of systems and equipments scheduled for delivery from production and those installed. Shore transmitting and receiving sites are operational 24 hours a day.

Additionally, the funds support fleet ballistic missile (FBM) Control System Communications, and provide for an operational strategic and tactical high frequency (HF) primary ship-to-shore system for submarines. This program provides funding for the operation of seven (7) shore receiving sites for the Circuit MAYFLOWER and the Circuit MERLIN strategic report-back systems. These systems provide a means for high speed communication from submarines to their operations commanders through dedicated receiving sites by providing continuous, worldwide coverage of assigned high frequencies. Funds are also used for technical support for certification,

Activity Group:
Strategic Communications (cont'd)

maintenance and repair of associated shipboard equipments, and training and certification of shipboard operators/technicians.

The mission of FBM Airborne Communications is to maintain airborne communication coverage for Fleet CINCs as an integral part of national defensive strategy in support of worldwide retaliatory forces. Objectives are to provide 100% airborne coverage ensuring survivable around-the-clock communications with deployed strategic forces, to provide alert launched and ready alert repositioning flights, to conduct special exercises, to provide NATOPS requalification and instrument checks, syllabus flights, pre-deployment proficiency flights, trainer flights, and post-maintenance check flights. Commencing in FY 1990, the two squadrons which provide the communications coverage begin transitioning from the EC-130 TACAMO aircraft to the E-6A aircraft. The transition will be complete in FY 1991.

Activity within the TACAMO program provides synchronized low frequency spectrum communications coverage without interruption to deployed retaliatory forces. Maintenance of coverage requires airborne on-station relief with aircraft flying rotational patterns that utilize foreign and domestic airfields. To preclude interrupting coverage, a backup aircraft and crew is positioned in a ready status.

TACAMO temporary additional duty (TAD) requirements support operational, training, and administrative mission including transportation; both commercial and military air, private and commercial vehicles, per diem and miscellaneous expenses in accordance with current per diem directives, Joint Travel Regulations and Naval travel instructions. Miscellaneous expenses include taxis and rental cars as required to perform mission.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1988	FY 1989			FY 1990	FY 1991
		Amended	Pres.	Appropriation	Budget Request	Budget Request
	Actual	Budget	Budget	Estimate	Request	Request
FBM Control Systems	34,771	32,778	31,155	31,658	41,665	43,088
TACAMO Aircraft Ops/Aircraft Sup	27,616	25,677	25,240	31,659	40,772	54,563
TACAMO Air TAD	3,105	2,710	2,560	3,152	3,578	3,872
TOTAL-Activity Group	65,492	61,165	58,955	66,469	86,019	101,523

Activity Group:
Strategic Communications (cont'd)

B. Reconciliation of Increases and Decreases.

	Amount
1. FY 1989 Current Estimate	66,469
2. Pricing Adjustments	-51
A. Stock Fund	
1) Fuel	(-1,417)
2) Non-Fuel	-1,239
B. Industrial Fund Rates	-178
C. Other Pricing Adjustments	(364)
	(1,002)
3. Functional Program Transfers	3,584
A. Transfers-In	(4,364)
1) Intra-Appropriation	
a) E&F Communications Great Lakes from Budget Activity 1, Base Operations (1,507) and Maintenance of Real Property (2,877)	4,372
B. Transfers-Out	(-800)
1) Intra-Appropriation	-800
a) Transfer of resources to Budget Activity 7 to reflect the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of compromise to the acquisition procurement process. Recent examinations by the Naval Investigative Service and by the Navy Inspector General have shown excessive contractor involvement contains the potential for disclosure of sensitive information and improper preparation of specifications or processing of procurement documentation.	
4. Program Increases	22,854
A. Other Program Growth	(22,854)
1) Increase reflects installation of Integrated	1,891

Activity Group:
Strategic Communications (cont'd)

Submarine Automated Broadcast Processing System (ISABPS) PIP equipment; development of software to interface with new I/O devices; AN/UYK-20 overhauls; meeting NATO transmit interface requirements; and site surveys, drawings, etc. for ISABPS new sites

2)	Increase in connectivity monitoring required by introduction of additional Extremely Low Frequency receivers in the operational fleet.	773
3)	Increase due to field change installation and dual configuration support for keyer upgrade to Mayflower equipment	1,036
4)	Increase for transition of TACAMO aircraft from the EC-130 to the E-6A will begin in FY 90 with the arrival of 7 E-6As. To fully utilize the enhanced capabilities of the new aircraft, JCS has directed a more restrictive day-to-day flight regime. This will result in more hours of transit time to and from the operating area increasing requirement hours by 10,351 hours.	13,278
5)	Increase of 1 TC-130Q Aircraft and 297 flying hours in FY 1990.	116
6)	Increase in TACAMO Squadron requirements for transition training from EC-130 to E-6A aircraft.	283
7)	Increase due to the realignment of funds from BA-1, Base Operations (1,178) and Maintenance of Real Property (437) for ELF Interface Mitigation (IM) support.	1,615
8)	Increase required to support contractor transition Training to the E-6A aircraft.	3,750

5. Program Decreases

A. Other Program Decreases in FY 1990

1)	Decrease in funding required to support training costs such as C-130 Allison Engine School, simulator training, RM teletype repair and aircraft structural repair training.	(-6,837)
2)	Decrease in number of aircraft and flying hours in the following model and series as the TACAMO	-13
		-6,970

-6,837

Activity Group:
Strategic Communications (cont'd)

squadrons transition to the E-6A aircraft:
EC-130Q- 5 aircraft/7,046 hours; KC-130F- 1
aircraft/290 hours; and TC-130G- 1 aircraft/290
hours.

- 3) Decrease in support required for Mayflower project. -34

6. FY 1990 President's Budget Request 86,019

7. Pricing Adjustments

A. Annualization of FY 1989 Direct Pay Raise

- 1) Classified

B. FY 1990 Direct Pay Raise

- 1) Classified

C. Stock Fund

- 1) Fuel

- 2) Non-Fuel

D. Industrial Fund Rates

E. Other Pricing Adjustments

(1)
1
(1)
1
(1,166)
988
178
(438)
(1,193)

2,799

8. Program Increases

A. Other Program Increases

- 1) Increase to support VERDIN NATO transmit
interface requirements and begin site preparation
for Integrated Submarine Automated Broadcast
Processing System (ISABPS) PIP Phase II for
Iceland.

- 2) Increase of 5 E-6A aircraft and 17,916 flying
hours as transition from the EC-130 is completed
with the arrival of the remaining aircraft. JCS
direction to fully utilize enhanced capabilities
of the new aircraft has increased requirement
hours.

24,608

- 3) Increase in the travel requirements to support the
transition of the E-6A aircraft.

283

- 4) Increase in contract operations at the Great Lakes
ELF facility above prescribed inflation rate.

23

24,990

(24,990)
76

Activity Group:
Strategic Communications (cont'd)

9. Program Decreases
- A. Other Program Decreases in FY 1991
- (1) Decrease in aircraft and flying hours for the C-130 type aircraft due to the transition to the E-6A aircraft. EC-130Q- 7 aircraft/10,569 hours; TC-130Q- 2 aircraft/1565 hours.
- 12,285
- 12,285
10. FY 1991 President's Budget Request
- \$101,523

III. Performance Criteria

The FBM Control System provides for manpower authorizations, engineering and technical services, repair, and support of an integrated program to provide survivable, reliable, and anti-jam command control communications to and from FBM submarines in the pre-, trans-, and post-attack period. This program includes maintenance and operational costs of the following programs/projects: VERDIN, an operational Very Low Frequency/Low Frequency digital broadcast subsystem used to transmit (shore-to-ship) unique traffic to deployed SSBN and Ship Submersible Nuclear (SSN) submarines; VLF stations (the primary Fleet Submarine Communications); Submarine Communications Improvement Program (SCIP), Continuing Evaluation Program (CEP); MERLIN, a highly specialized, one-way system that transmits a pre-recorded message to the National Command Authority when the submarine is "in extremis"; MAYFLOWER, a ship-to-shore HF communications system used to transmit data from operational SSN/SSBNs; ELF transmitting system; site preparation and installation of VLF Amplifiers; TACAMO, primary survivable communications link to insure NCA connectivity to SSBN forces; and SSBN Communications, support for Strategic Submarine antennas.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
VERDIN/Enhanced VERDIN (AN/WRR-7, AN/WRR-7A) Rcvr Sys Maintained	307	307	307	307
VERDIN (LSABPS PIP I & II) Planned sites	0	0	1	2
MERLIN (AN/BST-1) Systems Maintained	100	100	100	100

Activity Group:
Strategic Communications (cont'd)

	FY 1988	FY 1989	FY 1990	FY 1991
Fixed VLF Site Maintained	7	7	7	7
VLF Site Refurbishment	1	1	1	1
LF Transmitters Maintained	21	21	21	21
CEP Analysis & Assessments (W/Y)	23	23	30	30
FBM Radio Room Equipment Maintained	31	31	31	31
BCA (Buoyant Cable Antenna) (OE-315) Equipment Systems Maintained	31	31	31	31
CBFS (Cesium Beam Frequency Standard) Equipment Maintained	480	480	480	480
MAYFLOWER System				
Shore Maintained	10	10	10	10
Shipboard Maintained	136	136	136	136
Keyer Upgrade	0	0	84	84
ELF Transmitting Sites Operated and Maintained Interference Mitigation (Only FY 1990-1991)	2	2	2	2
ELF Receivers Maintained	0	0	139	139
MF/HF Multi-couplers Systems Maintained	10	10	10	10
Systems Installed	10	10	10	10
VLF Amplifier Sites	1	1	1	1
Compact Very Low Frequency (CVLF) Support (W/Y)	2	2	2	2
TACAMO Support (W/Y)	9	0	0	0

Activity Group:
Strategic Communications (cont'd)

	<u>FY 1988</u> 9	<u>FY 1989</u> 9	<u>FY 1990</u> 9	<u>FY 1991</u> 9
SCIP-Submarines Assessed				
SSBN Communications (W/Y)	11.1	6	6	6
Average Operating Aircraft				
Flying Hours	17	17	17	14
Cost (\$000)	23,393	24,010	26,885	32,667
Hours Per A/C	27,614	25,652	30,813	43,556
Cost Per Hour	1,370	1,412	1,581	2,432
Per Diem Days	1,186	1,068	1,146	1,333
	78,619	78,995	89,135	95,074

IV. Personnel Summary:

End Strength (E/S)

A. Military
Officer
Enlisted

B. Civilian
USDR

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	1,485	1,598	1,662	1,563
	233	269	283	262
	1,252	1,329	1,379	1,301
	0	0	2	7
	0	0	2	2

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Space Systems Operations
Budget Activity: I Strategic Forces

I. Description of Operations Financed.

The Naval Space Command (NAVSPACECOM) Dahlgren, Virginia, supports naval space policy and strategy by providing direct support to fleet units worldwide through integrated control of naval space programs. The Command coordinates Navy-wide operational space resources and personnel required to fulfill Fleet missions. While reflecting the Navy's reliance on space for maritime communications, navigation, environmental prediction and surveillance, it also provides an organizational structure for effective space coordination with other Department of Defense (DOD) elements. NAVSPACECOM is the naval component of the U.S. Space Command. NAVSPACECOM commands the operations of the Naval Space Surveillance System (NAVSPASUR) and the Navy Astronautics Group (NAVASTROGRU).

NAVSPASUR operates a large continuous wave radar system to detect and track satellites. Evaluated satellite information from this system supports over 600 activities, consisting of all Fleet units, various naval shore installations, and other departments of the Government. Data provided includes satellite overflight alerts; radar pointing angles; satellite ephemeral predictions; orbital elements (for input into shipboard computers); look angles; orbit breakup fragments and "problem" satellites; and uncorrelated detection data. Primary mission for Fleet support is vulnerability data for United States Navy and Marine Corps operating forces. NAVSPASUR, as a force assigned to U.S. Space Command, provides 75% of the space surveillance data for the space object catalog maintained at the Space Surveillance Center (SSC) located at the Cheyenne Mountain Complex in Colorado. NAVSPASUR is also designated as the Alternate Space Surveillance Center (ASSC) with a backup control function for the entire Space Detection and Tracking Surveillance System (SPADATS). In the event of a failure at SSC, NAVSPASUR provides all support including command and control for each SPADAT sensor and maintains the space object catalog for the SSC. NAVSPASUR is also designated as the Alternate Space Defense Operations Center (ASPDAC) for U.S. Space Command. This includes responsibilities for monitoring potential space threats and disseminating information to the National Command Authority (NCA) and space community; aiding in the protection and restoration of space capabilities; involvement with space system protection operation plans; and space control support activities.

Navy Astronautics Group (NAVASTROGRU) maintains and operates astronautic systems, including spacecraft and ground based components and subsystems to fulfill naval and national requirements. The Navy Navigation Satellite System (NNSS) is the major operational space system to support navigation requirements of all Fleet units. Primary mission Fleet support is provided to FBM submarines, which impose the most

Activity Group:
Space Systems Operations (cont'd)

stringent navigational accuracy requirements on NNSS. Expanded roles for NAVASTROGRU in spacecraft management include upgrade for Extremely High Frequency (EHF) operations support and use of existing DP capabilities to obtain geolocation of Radio Frequency Interference (RFI). NAVASTROGRU is responsible for the Fleet Satellite Extremely High Frequency Program (FEP) and its operations centers (FEPOCs).

Additional NAVSPACECOM responsibilities include around-the-clock operational Fleet support and operational management of communications satellite capability for Fleet communications, operational management of Relocatable Over the Horizon Radar (ROTHR) and Tactical Exploitation of the National Capabilities (TENCAP) as well as support for several naval compartmented projects.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1989				FY 1990		FY 1991	
	FY 1989 Actual	Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request
Naval Space Command	5,830	4,465	4,442	4,442	5,374	5,374	5,574	5,574
Headquarters								
Space System	11,800	13,524	12,602	13,206	14,797	14,797	15,457	15,457
Product Management								
Tracking, Telemetry	4,412	6,167	6,105	6,174	6,409	6,409	6,574	6,574
and Control (TT&C)								
Operations								
TOTAL - Space Systems Operation	22,042	24,156	23,129	23,822	26,850	26,850	27,605	27,605

Activity Group:
Space Systems Operations (cont'd)

B. Reconciliation of Increases and Decreases-		Amount
1. FY 1989 Current Estimate		\$23,822
2. Pricing Adjustment		727
A. Annualization of FY 1989 Direct Pay Raise		
1) Classified	(123)	
B. FY 1990 Direct Pay Raise	123	
1) Classified	(178)	
C. Stock Fund	178	
1) Non-fuel	(-1)	
D. Industrial Fund Rates	-1	
E. Other Pricing Adjustments	(3)	
	(424)	
3. Program Increases		2,333
A. Other Program Growth	(2,333)	
1) Naval Space Surveillance Center (NAVSPASUR), in addition to providing fleet vulnerability reports, is a sensor to the U.S. Space Command Space Surveillance Center (SSC) and, is the Alternate Space Surveillance Center (ASSC), provides all back-up support in the event of SSC failure. Increase supports software modifications required to maintain compatibility as SSC software is modified and upgraded.	314	
2) Increase for classified projects at Naval Space Command Headquarters.	385	
3) Civilian personnel increases for Naval Space Surveillance Center (NAVSPASUR) and Navy Astronautics Group (NAVASTROGRU) provide resources to meet fleet support and U.S. Space Command missions.	344	
4) Increase for software modifications and upgrades for Joint Operational Tactical System (JOTS).	60	
5) Increase for initial efforts to provide communications protocols and establish interfaces between NAVSPASUR and other world-wide U.S. Space Command Space surveillance sensors.	421	

Activity Group:
Space Systems Operations (cont'd)

73

6) Increase in travel and preparation of course presentation and materials for the Tactical Sensitive Compartmented Information Space Training Course. Course emphasizes space awareness and familiarizes fleet users worldwide with all space assets available to the tactical warfighter.

243

7) Increase to support space systems requirements planning and taskings emerging from Chief of Naval Operations and U.S. Space Command.

493

8) Increase for equipment upgrades and software modifications to bring a portion of Naval Space Surveillance Center's (NAVSPASUR) operations center to state-of-the-art technology. This effort would provide orbital analyst watchstanders with improved equipment for the display of space object orbital paths and improve vulnerability reporting.

-302

4. Program Decreases

(-302)
-302

A. One-Time FY 1989 Costs
1) Decrease for one-time FY 1989 costs to evaluate alternatives to modernize the NAVSPASUR operations center which currently relies primarily on manual methods.

\$26,580

5. FY 1990 President's Budget Request

780

6. Pricing Adjustment

(95)
95

A. Annualization of FY 1990 Direct Pay Raise

(263)

B. FY 1991 Direct Pay Raise

263

1) Classified

(1)

C. Stock Fund

1

1) Non-Fuel

(3)

D. Industrial Fund Rates

(418)

E. Other Pricing Adjustments

Activity Group:
Space Systems Operations (cont'd)

286

(238)
238

7. Program Increases
- A. Annualization of FY 1990 Increases
- 1) Full work year costs for personnel increase in FY 1990 for staffing requirements for fleet support and U.S. Space Command missions.
- B. One-Time Program Growth in FY 1991
- 1) One extra paid day in FY 1991

(48)
48

-41

(-41)
-41

8. Program Decreases
- A. Other Program Decreases
- 1) Decrease for completion of initial software modifications to bring a portion of Naval Space Surveillance Center's (NAVSPASUR) operations center to state-of-the art technology.

\$27,605

9. FY 1991 President's Budget Request

Activity Group:
Space Systems Operations (cont'd)

III. Performance Criteria.

FY 1988 FY 1989 FY 1990 FY 1991

A. NAVIGATION (Navy Navigation Satellite System)

1. Monitoring Sites 4 4 4 4

Prospect Harbor, ME

Rosemont, MN

Wahiaua, HI

Laguna Peak, CA

2. Satellite Configuration 7 7 7 7

3. Injection Success 100% 100% 100% 100%

B. SURVEILLANCE

1. Transmitter sites 3 3 3 3

Lake Kickapoo, TX

Gila Lake, AZ

Jordan Lake, AL

2. Receiver Sites 6 6 6 6

Fort Stewart, GA

Silver Lake, MS

Red River, AK

Elephant Butte, NM

San Diego, CA

Hawkinsville, GA

FY 1988 FY 1989 FY 1990 FY 1991

3. Catalog Items 8,575 9,585 10,735 11,800

C. SPATOPS Cost (\$000)

(Space Training and Operations Procedures Standards)

Naval Space Command is responsible for the development of Space Training and Operations Procedures Standards (SPATOPS) which establish doctrinal connectivity, operational

relationships and management responsibilities for all newly acquired space systems. Funding

for SPATOPS funding is required 18-24 months prior to IOC of each new space system.

\$94 \$97 \$100 \$103

Activity Group:
Space Systems Operations (cont'd)

IV. Personnel Summary:

End Strength (E/S)

A. Military
Officer
Enlisted

B. Civilian
USDH

<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
156	157	164	174
<u>67</u>	<u>68</u>	<u>67</u>	<u>67</u>
89	89	97	107
291	319	334	334
<u>291</u>	<u>319</u>	<u>334</u>	<u>334</u>

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Fleet Command & Staff
Budget Activity: 1 Strategic Forces

I. Description of Operations Financed.

The purpose of this program is to provide the Fleet operational support required to permit Fleet Ballistic Missile (FBM) submarines to carry out their mission. Support provided includes material control and supply support, fleet temporary additional duty (TAD) for FBM crew rotations between continental United States and overseas sites and for crew training, and use of the Atlantic Underwater Test and Evaluation Center (AUTC).

The submarine squadron and group commander staff requirements are also included. The staffs' mission is to operationally direct and administer material and logistic support and TAD.

The AUTC range is used to conduct torpedo, Harpoon and TOMAHAWK proficiency firings, crew qualifications, and to test and certify shipboard weapon systems. The range is operated and managed by the Naval Underwater Systems Center (NUSC). Requested funds represent the direct costs for support of AUTC range, open ocean firings, torpedo retrievals and post firing evaluations.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1988			FY 1989		FY 1990		FY 1991	
	Actual	Amended Budget	Pres. Budget	Appropriation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request
Ship Ops Administration	2,244	2,371	2,371	2,362	2,229	2,301	2,351	2,351	2,351
Staff Administration	4,924	4,935	4,935	4,852	4,406	4,621	5,548	5,548	5,548
Ship Operations TAD	6,852	6,297	6,297	6,292	6,293	6,497	6,553	6,553	6,553
Control System Readiness	7,837	7,354	7,354	7,329	7,329	7,904	8,231	8,231	8,231
TOTAL-Fleet Command & Staff	21,857	20,957	20,957	20,846	20,257	21,323	22,683	22,683	22,683

Activity Group:
Fleet Command and Staff (cont'd)

B. Reconciliation of Increases and Decreases.		Amount
1. FY 1989 Current Estimate		\$20,257
2. Pricing Adjustments		772
A. FY 1990 Direct Pay Raise		
1) Classified	(5)	
B. Stock Fund	5	
1) Non-Fuel	(24)	
C. Industrial Fund Rates	24	
D. Other Pricing Adjustments	(355)	
	(376)	
3. Program Increases		335
A. Other Program Increases	(335)	
1) Increase in the material, supplies, and computer support required by the Squadron and Group Commanders to support FBW operations.	132	
2) Increase in the torpedo proficiency firings, prospective Commanding Officer Tests, and the data analysis of the firings.	200	
3) Increase in travel to support TRIDENT crew rotations at remote sites.	3	
4. Program Decreases		-41
A. Other Program Decreases	(-41)	
1) Reduction of one civilian end strength due to the DoD Inspector General initiative to reduce administrative oversight (Van Der Schaaf Study).	-27	
2) Decrease in air conditioning plant training required for shipboard personnel.	-13	
3) Reduction of excess onboard inventories to reduce the requirement for material/supplies funds needed for daily administrative operations	-1	

Activity Group:
Fleet Command and Staff (cont'd)

21,323

5. FY 1990 President's Budget Request

636

6. Pricing Adjustments
- A. Annualization of FY 1990 Pay Raise
 - 1) Classified (2)
 - 2 2
 - B. FY 1990 Direct Pay Raise (9)
 - 1) Classified 9
 - C. Stock Fund (25)
 - 1) Non-Fuel 25
 - D. Industrial Fund Rates (266)
 - E. Other Pricing Adjustments (334)

891

7. Functional Transfers
- A. Transfers-In (891)
 - 1) Transfer of the Staff Administration functions 891
 - at the Submarine Base and TRIDENT Refit Facility,
 - Kings Bay, GA from Strategic Weapons Systems,
 - BA-1.

95

8. Program Increases
- A. One-Time FY 1991 Program Increases (3)
 - 1) One additional Civilian Personnel paid day. 3
 - B. Other Program Growth (92)
 - 1) Increase for physical security enhancements 41
 - to improve staff security.
 - 2) Increase in AUTECH contract support. 3
 - 3) Increase in the Combat System Readiness analysis 48
 - requirements for torpedo firings, and defensive
 - weapon systems tests.

Activity Group:
Fleet Command and Staff (cont'd)

-262

(-262)

9. Program Decreases
A. Other Program Decreases

-125

1) Reduction in the maintenance training required by

FPM crews in fire control systems, air

conditioning plants and nuclear welding.

-67

2) Decrease in material, supplies, and computer support

required by submarine squadrons and group

-65

3) Reduction of three civilian end strength due to the

DoD Inspector General initiative to reduce

administrative oversight (Van Der Schaaf Study).

\$22,683

10. FY 1991 President's Budget Request

Activity Group:
Fleet Command and Staff (cont'd)

	FY 1988	FY 1989	FY 1990	FY 1991
III. Performance Criteria.				
A. AUTECH/Combat System Support				
MK 48 Proficiency Firings	253	237	240	240
Pre-Commanding Officer MK 48 Firings	94	78	84	84
B. TRIDENT MK 48 Proficiency Firings	100	100	100	100
C. Per Diem Days	37,463	30,359	30,298	27,553
D. Number of Requisitions (Thousands)	664	638	673	678
E. Submarine Groups	4	4	4	4
F. Submarine Squadrons	4	4	4	4
G. FBM Submarines and Tenders Assigned	41	40	39	39

Activity Group:
Fleet Command and Staff (cont'd)

IV. Personnel Summary:

End Strength (E/S)

A. Military
Officer
Enlisted

B. Civilian
USDH

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	874	847	844	840
	<u>183</u>	<u>201</u>	<u>198</u>	<u>195</u>
	691	646	646	645
	<u>13</u>	<u>12</u>	<u>11</u>	<u>9</u>
	13	12	11	9

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Maintenance of Real Property
Budget Activity: I - Strategic Forces

I. Description of Operations Financed.

This program provides maintenance, repair and minor construction for all buildings, structures, grounds and utility systems at strategic submarine bases and the Naval Space Command to permit assigned forces and tenants to perform their missions.

The major elements of this program are:

- o Facilities Maintenance - finances scheduled, day-to-day recurring maintenance, and emergency service work needed to preserve facilities.
- o Major Repairs - provides major repairs necessary to bring existing facilities into adequate condition to support assigned missions.
- o Minor Construction - finances the erection, installation or assembly of real property facilities; the addition, extension alteration, conversion or replacement of existing real property facilities; the relocation of real property facilities; and the installation of equipment which becomes part of a facility.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1988 Actual	FY 1989			FY 1990		FY 1991	
		Amended Pres. Budget	Appro- piation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request
Facilities Maintenance	27,517	31,079	30,978	30,477	29,815	29,815	35,092	35,092
Major Repair Projects	2,240	2,679	2,679	3,213	1,388	1,388	1,031	1,031
Minor Construction	3,171	3,551	3,538	3,538	3,165	3,165	2,745	2,745
Total Activity Group	32,928	37,309	37,195	37,228	34,368	34,368	38,868	38,868

Activity Group:
Maintenance of Real Property (cont'd)

<u>B. Reconciliation of Increases and Decreases.</u>		<u>Amount</u>
1. FY 1989 Current Estimate		37,228
2. Pricing Adjustments		
a. Annualization of FY 1989 Direct Pay Raises		1,241
1) Classified	(18)	
2) Wage Board	7	
b. FY 1990 Direct Pay Raises	11	
1) Classified	(19)	
2) Wage Board	10	
c. Stock Fund	9	
1) Fuel	(-5)	
2) Non-fuel	-9	
d. Industrial Fund Rates	4	
e. Other Pricing Adjustments	(4)	
	(1,205)	
3. Functional Program Transfers		-2,877
a. Transfers Out		
1) Intra-Appropriation		
a) Extremely low Frequency Communication system to Strategic Communications.	(-2,877)	
4. Program Increases		2,888
a. Other Program Growth in FY 1990		
1) Increase for facilities maintenance of new facilities at Kings Bay as it reaches IOC.	(2,888)	
5. Program Decreases		-4,112
a. Other Program Decreases		
1) Deferral of recurring maintenance and repair efforts and reductions in materials, supplies, and equipment support for planned facility maintenance.	(-3,170)	
2) Realignment of funds to Strategic Communications for ELF Interference Mitigation (IM) support.	(-437)	
6. FY 1990 President's Budget Request		34,368

Activity Group:
Maintenance of Real Property (cont'd)

7. Pricing Adjustments		1,027
a. Annualization of FY 1990 Direct Pay Raises		
1) Classified	(7)	
2) Wage Board	4	
b. FY 1991 Direct Pay Raise	3	
1) Classified	(35)	
2) Wage Board	15	
c. Stock Fund	20	
1) Fuel	(4)	
2) Non-fuel	3	
d. Industrial Fund Rates	1	
e. Other Pricing Adjustments	(2)	
	(979)	
8. Functional Program Transfer		2,061
a. Transfer In		
1) Intra-Appropriation	(2,725)	
a) From Strategic Weapons Systems to fully fund transfer of Kings Bay to the Atlantic Fleet.	2,725	
b. Transfer Out		
1) Intra-Appropriation	(-664)	
a) Transfer Trident Training Facility at Kings Bay to BA 8.	-664	
9. Program Increases		1,663
a. One-Time Increase in FY 1991	(4)	
1) One additional work day in FY 1991	4	
a. Other Program Growth in FY 1991	(1,659)	
1) Increase for facilities maintenance due to new facilities and personnel increases at Kings Bay.	1,349	
2) Increase for deferred Facility Maintenance.	310	
10. Program Decreases		-251
a. Other Program Decreases in FY 1991		
1) Deferral of Minor Construction projects.	(-251)	
11. FY 1991 President's Budget Request		38,868

Activity Group:
Maintenance of Real Property (cont'd)

<u>III. Performance Criteria.</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Maintenance of Real Property				
Backlog, Maintenance/Repair (\$000)	7,429	8,780	10,578	12,536
Total Building (KSF)	7,696	7,918	8,110	8,328

<u>IV. Personnel Summary:</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
End Strength (E/S)				
A. Civilian	35	35	35	46
USDR				

**Department of the Navy
Operation & Maintenance, Navy**

Activity Group: Base Operations

Budget Activity: I - Strategic Forces

I. Description of Operations Financed.

This program group provides the base support services and material required at strategic submarine bases and the Naval Space Command to permit assigned forces and tenants to perform their missions.

The major elements of this program are:

- o Utility Operations - Includes operating expenses for purchased electricity, electricity generating plants, purchased steam and hot water, heat plants, utility distribution systems, waste systems, air conditioning and refrigeration plants.
- o Personnel Operations - Support required for personnel related functions include expenses for:
 - Bachelor Housing Operations and Furnishings - provides support for the operation of barracks and the purchase and maintenance of personnel support equipment related to this housing.
 - Other Personnel Support - provides for mess halls, sales activities, laundry and dry cleaning facilities. Previously separate sub-activity groups were consolidated under this sub-activity group. They were 1) Station Hospitals, Medical and Dental Clinics - direct and indirect health care costs for Health Care Facilities not under the financial control of the Navy Medical Command and 2) Human Goals - provides support for programs which focus on improving organizational and individual effectiveness and the administrative support of the Alcohol and Drug programs.
 - Morale, Welfare and Recreation - provides authorized appropriated fund support for shore based recreation activities.
 - o Base Operations - Mission - Support for those Base Operations functions which are required in direct support of the mission of the base. For example, Fleet Training Support, Logistics Support, etc. Expenses are included for the following functions:

Activity Group:
Base Operations (cont'd)

Retail Supply Operations - In addition to standard supply functions, this item includes the procurement, receipt, storage and issue of bulk liquid fuel, including operating aircraft fuel servicing facilities. Additionally, waterfront operations such as handling incoming and outgoing cargo and loading/unloading live ammunition onto and from combatant vessels are included.

- Maintenance of Installation Equipment - provides for maintenance of major shore based equipment including: service and miscellaneous craft, construction equipment (non-deployable), weapons, electronics, electronic engineering, and fleet moorings.

- Other Base Services - provides for the maintenance and operation of vehicles/other transportation equipment, port services (includes navigational assistance to ships, operation of service craft, degaussing operations, and oil spillage cleanup).

- o Base Operations - Ownership - Support required at shore bases regardless of type of mission being performed which must be sustained to have a functioning base. Expenses are included for the following functions:

- Other Engineering Support - Public Works Department Administration, engineering services, custodial services, refuse/garbage collection and disposal, snow removal, rental and leasing of real property, and fire protection and firefighting for Naval activities and their tenants. The sub-activity group Hazardous Waste Material Handling was consolidated into this sub-activity group and includes personnel, supplies and training associated with the identification and disposal of hazardous wastes.

- Administration - provides support related to financial/resource management, civilian manpower management, and maintaining military personnel records.

- Automated Data Processing - provides analysis programming, equipment rental, operations and maintenance, contractual services and supplies.

- Audiovisual - provides supplies and services required for audiovisual support.

- Physical Security - provides shore base physical security.

Activity Group:
Base Operations (cont'd)

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1989			FY 1990 Budget Request	FY 1991 Budget Request
	FY 1988 Actual	Amended Pres. Budget	Appro- priation	Current Estimate	
Base Communications	3,190	4,842	4,829	4,835	4,691
Utility Operations	20,627	21,481	21,439	22,127	19,562
Personnel Operations	8,899	10,603	10,495	10,323	8,665
Base Operations, Mission	22,845	29,754	29,662	27,420	31,252
Ownership Operations	41,286	44,032	41,690	40,682	50,065
Total Activity Group	96,847	110,712	108,115	105,387	114,235

B. Reconciliation of Increases and Decreases.

Amount

1. FY 1989 Current Estimate

105,387

2. Pricing Adjustments

a. Annualization of FY 1989 Direct Pay Raises

(294)

1) Classified

206

2) Wage Board

88

b. FY 1990 Direct Pay Raises

(362)

1) Classified

347

2) Wage Board

15

c. Stock Fund

1) Fuel

(-248)

2) Non-fuel

-229

d. Industrial Fund Rates

(31)

e. Other Pricing Adjustments

(2,616)

1-1-79

Activity Group:
Base Operations (cont'd)

-656

3. Functional Program Transfers
a. Transfers in
1) Intra-Appropriation (851)

a) Transfer of hazardous waste disposal resources from Budget Activity 7, Field Operations, to individual activities to encourage savings by making generators directly responsible for disposal. 777

b) Transfer of Defense Data Network (DDN) resources from budget Activity 3, Leased Communications to individual users to encourage savings by making users directly responsible for paying for their own DDN usage. 74

b. Transfers out

1) Intra-appropriation

a) Transfer of ELF Communication System to Strategic Communications. (-1,507)

-1,507

i. Program Increases

a. Other Program Growth in FY 1990

1) Increase for leasing of temporary facilities for the Navy Astronautics group pending completion of Military Construction. (67)

2) Increased utilities at King's Bay due to new facilities and increased industrial operations as the Submarine Base reaches Initial Operating Capability (IOC). (1,873)

3) Increased supplies, materials, and contract support for hazardous waste program. (177)

2,117

5. Program Decreases

a. Annualization of FY 1989 Decreases (-569)

1) Decrease resulting from realignment of crane operators and riggers to TRIDENT Refit Facility. -569

-5,702

Activity Group:
Base Operations (continued)

b. Other Program Decreases in FY 1990	(-5,133)	
1) Realignment of funds to Strategic Communications for Extremely Low Frequency interference mitigation (IM) efforts.	-1,178	
3) Reduction in energy utilization through energy conservation.	-96	
4) Reductions in personnel support and mission operations.	-3,859	
6. FY 1990 President's Budget Request	104,201	
7. Pricing Adjustments		3,063
a. Annualization of FY 1990 Direct Pay Raises	(198)	
1) Classified	147	
2) Wage Board	51	
b. FY 1991 Direct Pay Raises	(431)	
1) Classified	415	
2) Wage Board	16	
c. Stock Fund	(119)	
1) Fuel	75	
2) Non-Fuel	44	
d. Industrial Fund Rates	(34)	
e. Other Pricing Adjustments	(2,281)	
8. Functional Program Transfer		6,759
a. Transfers in		
1) Intra-appropriation	(13,180)	
a) Transfer in from Strategic Weapons to fully fund first full year of operation of Kings Bay.		
b) Transfer of Defense Data Network (DDN) resources from budget Activity 3, Leased Communications to individual users to encourage savings by making users directly responsible for paying for their own DDN usage.	13,133	
		47

Activity Group:
Base Operations (cont'd)

b. Transfers out			
1) Intra-appropriation			
a) Medical/Dental clinics at Kings Bay to Budget Activity 8.	(-6,421)		
b) TRIDENT Training Facility to Budget Activity 8.	-3,921		
	-2,500		
			1,520
9. Program Increases		(38)	
a. One-Time FY 1990 Cost		38	
1) One additional civilian personnel workday		(1,482)	
a. Other Program Growth in FY 1991			
1) Increased cost for the annual rental of land at Naval Space Surveillance Command in San Diego.		32	
2) Increase in personnel operations to support first full year of operations at Kings Bay.		355	
3) Initial operating year of a Swimmer Defense System as a part of the Waterside Security System to provide increased, integrated physical security at the Bangor Trident Submarine Base.		1,095	
			-1,308
10. Program Decreases		(-1,308)	
a. Other Program Decreases in FY 1991			
1) Decrease reflects reduction in energy utilization through energy conservation.		-33	
2) Decrease reflects reduction in utility operations, base operations mission and ownership administration/ADP services.		-852	
			110,633
12. FY 1991 President's Budget Request			

Activity Group:
Base Operations (cont'd)

III. Performance Criteria.	FY 1988	FY 1989	FY 1990	FY 1991
Operations of Utilities				
Total Energy Consumed (MBTU's)	20,627	22,127	23,048	19,557
Total Non-Energy Consumed (000 Gal)	1,373,300	1,411,193	1,451,858	1,491,058
Base Communications				
Number of Instruments	3,190	4,835	5,351	4,691
Number of Mainlines	3,204	3,384	3,598	3,687
Daily Average Msg Traffic	3,638	3,858	3,993	4,093
Personnel Operations				
Bachelor Housing (\$000)	752	1,337	1,355	1,623
No. of Officer Quarters	133	133	199	199
No. of Enlisted Quarters	2,194	2,482	2,558	2,638
Other Personnel Support (\$000)	3,991	5,162	3,994	3,042
Population Served, Total	60,965	62,760	63,503	64,239
(Military, E/S)	9,344	10,705	11,376	11,876
(Civ/Dep, E/S)	51,621	52,055	52,127	52,363
Morale, Welfare & Recreation (\$000)	4,156	3,824	3,319	3,042
Population Served, Total	73,232	77,907	80,765	82,446
(Military, E/S)	8,979	10,238	10,856	11,356
(Civ/Dep, E/S)	64,253	67,669	69,909	71,090
Base Operations, Mission				
Retail Supply Operations (\$000)	4,262	5,496	5,931	5,354
Line Items Carried	98	93	93	93
Receipts (000)	127	135	145	148
Issues (000)	146	157	168	172
Maintenance of Installation Equip (\$000)	488	811	784	714
Other Base Services (\$000)	18,095	21,113	19,189	25,184
No. of Motor Vehicles, Total	1,870	1,876	1,876	1,876
(Owned)	1,563	1,569	1,569	1,569
(Leased)	307	307	307	307
Ownership Operations				
Other Engineering Support (\$000)	18,475	21,336	21,309	23,483
Administration (\$000)	16,842	13,441	13,929	18,885
Number of Bases, Total	3	3	3	3
(CONUS)	3	3	3	3
(Overseas)	0	0	0	0

Activity Group:
Base Operations (cont'd)

IV. Personnel Summary:

End Strength (E/S)	FY 1988	FY 1989	FY 1990	FY 1991
A. Military				
Officer	716	695	779	778
Enlisted	75 641	101 594	101 678	100 678
B. Civilian				
USDH	739	728	719	777
	739	728	719	777

SUMMARY OF REQUIREMENTS BY ACTIVITY

Budget Activity 2: General Purpose Forces

	FY 1988			FY 1989			FY 1990			FY 1991			OGR:
	Personnel E/S	OGR:	Funding	Personnel E/S	OGR:	Funding	Personnel E/S	OGR:	Funding	Personnel E/S	OGR:	Funding	
	Mil	Civ		Mil	Civ		Mil	Civ		Mil	Civ		
TACAIR/ASW Operations	44,531	322	1,542,764	45,294	328	1,437,308	45,326	328	1,401,880	45,346	319	1,424,243	
Fleet Air Support	10,693	24	354,814	11,674	22	331,006	11,750	21	320,770	11,757	18	321,433	
Ship Operations	188,192	0	1,866,322	203,794	0	1,917,134	206,420	0	1,820,969	205,706	0	1,810,136	
Ship Maint. & Modern.	8,325	540	4,255,281	8,897	627	4,385,325	9,428	838	4,850,296	10,015	838	4,993,792	
Combat Support Forces	10,647	185	93,287	11,033	196	98,367	11,250	195	92,139	11,386	195	96,316	
Fleet Operations Support	4,951	106	192,730	5,127	119	391,731	5,241	630	483,770	5,521	651	533,721	
Other Warfare Support	384	63	58,224	128	67	62,640	129	63	65,455	129	63	67,878	
Fleet Air Training	16,913	301	415,238	16,984	356	396,886	16,531	350	438,917	16,557	271	433,569	
Fleet Ship Training	2,442	95	46,231	2,246	104	43,241	2,260	104	42,343	2,257	93	41,535	
Unified Commands	826	261	31,784	826	272	26,322	801	265	31,958	779	255	33,965	
Fleet Command & Staff	10,966	1,416	107,205	10,937	1,436	93,075	10,758	1,431	96,359	10,609	1,407	91,046	
Cruise Missile	0	0	104,582	0	0	116,439	0	0	115,888	0	0	131,950	
Maint. of Real Property	477	2,305	489,818	538	2,171	391,655	540	1,964	348,459	547	1,893	362,006	
Base Operations	28,410	21,937	1,341,016	29,075	21,465	1,408,402	29,214	21,801	1,512,948	29,246	21,274	1,564,351	
Foreign Currency	0	0	133,800	0	0	68,000	0	0	0	0	0	0	
Total BA-2	327,757	27,555	11,033,096	346,553	27,163	11,157,531	349,648	27,990	11,622,151	350,055	27,277	11,914,936	

Department of the Navy
Operation & Maintenance, Navy

Budget Activity: 2 (Two) - General Purpose Forces (Summary)

I. Description of Operations Financed.

The Navy's mission in General Purpose Forces is to provide combat ready fleet forces capable of conducting strike operations to ensure control of the sea and air in the event of war. In FY 1990 this program includes 503 general purpose ships and decreases to 495 in FY 1991. The average operating aircraft decrease from 3,471 in FY 1990 to 3,448 in FY 1991. In addition this program funds a network of shore installations and commands. These forces, operating under the control of the unified and specified commanders, deploy to the Indian Ocean; northern, eastern, and western Pacific; north Atlantic; central and eastern Mediterranean; Caribbean and Central America regions.

The General Purpose Naval Force is comprised of 503 units in FY 1990, including 15 aircraft carriers, 4 battleships, 183 surface combatants, 97 submarines, 63 amphibious force ships, 13 patrol and mine warfare ships, 60 combat logistic and 68 support ships. In FY 1991 the General Purpose Naval Forces are comprised of 495 units, including 15 aircraft carriers, 4 battleships, 174 surface combatants, 97 submarines, 62 amphibious force ships, 12 patrol boats and mine warfare ships, 61 combat logistic and 70 support force ships.

During FY 1990, funding for the Navy's General Purpose Forces supports the introduction of 22 new ships. Additions to the conventionally powered fleet include 3 Aegis guided missile cruisers, 3 landing ship docks, 5 mine countermeasures ships, 3 towed array surveillance ships, and 3 fleet oilers. The nuclear powered fleet will receive 1 nuclear powered aircraft carrier and 4 nuclear attack submarines of the 688 class. During FY 1991, the General Purpose Naval Force program supports the introduction of 18 new ships. Increases in the conventionally powered fleet include 3 Aegis guided missile cruisers, 1 guided missile destroyer, 3 mine countermeasures ships, 2 towed array surveillance ships, and 4 fleet oilers. Increases to the nuclear powered fleets include 5 nuclear attack submarines of the Los Angeles class. The FY 1990 and FY 1991 operating tempo is level for deployed and non-deployed forces at 50.5 and 29 days per quarter, respectively.

The General Purpose Forces flying hour program includes 942 thousand flying hours in FY 1990 and 940 thousand hours in FY 1991 to allow combat aircrews (both Navy and Marine) to maintain proficiency to conduct operations at 87% Primary Mission Readiness (PMR), including 2% simulators. PMR represents the flying hours available to keep the crews qualified to perform their primary mission in assigned aircraft. The program also includes 268 thousand hours in FY 1990 and 261 thousand hours in FY 1991.

Budget Activity 2 Summary (Cont'd)

flying hours for aircrew training in the Fleet Readiness Squadrons (FRS) and 207 thousand flying hours and 204 thousands hours in FY 1991 for fleet air support operations.

The Ship Maintenance and Modernization Program represents a major expense of this budget activity and provides for regular overhauls, alterations, non-scheduled repairs, intermediate maintenance, berthing and messing, and technical support for the naval forces. Beginning in FY 1989 the funding for the procurement of initial outfitting spares, formerly budgeted in this program, has been transferred to other Procurement, Navy. In addition, funding for Planning and Estimating for Repairs and Alterations (PERA) has been transferred, within O&M, from Budget Activity 7, Central Supply and Maintenance, to this account. The \$4.8 billion budgeted in FY 1990 provides for major overhauls to 15 ships, including submarines, surface combatants, and other ships. The trend of using fewer overhauls and more restricted and technical availabilities, which provides more frequent but shorter duration depot repair periods, continues through FY 1991. SSN-688 Class Depot Modernization Program begins with 5 depot availabilities in FY 1989. Also provided are voyage repair support to operating units; material required to perform prescribed intermediate level maintenance; modernization which includes design and installation of new equipments or systems to enhance capability or effectiveness of major combat systems, communications and other mission-essential ship systems during overhaul and emphasizes upgrading defensive and offensive capabilities, combat systems, detection sonars and weapon systems to improve combat readiness; technical support to monitor ships for which overhaul cycles have been extended under the Engineered Operating Cycle (EOC) program and for upgrading of ships and ship equipments; and required berthing and messing for crews during major overhaul.

Reduced funding coupled with increasing requirements have caused an overhaul backlog of 4 ships in FY 1990 and 5 ships in FY 1991. Within this backlog, 2 ships in FY 1990 and 1 ship in FY 1991 are backlogged due to a lack of Fleet Modernization Program (FMP) funding.

The Base Operations and Maintenance of Real Property programs provide support services and maintenance, repair, and minor construction for a world-wide complex of shore installations required to support fleet operational units. These installations encompass air facilities, ranges, naval stations, and support installations such as island facilities at Diego Garcia, Indian Ocean Littoral, and NATO Infrastructure costs associated with the Navy's use of NATO facilities.

Funding is also included for Unified and Operational Commands, Special Combat Forces, Construction Battalion Operations, Fleet Electronic Command and Control, Undersea Surveillance, and Cruise Missile Support. Special Combat Support funding includes the operation of seven additional Landing Craft Air Cushion (LCAC) craft in FY 1990 and twelve in FY 1991. Fleet Electronic Command and Control includes 4th quarter FY 1989 funding for deployment of the first operational Relocatable Over the Horizon Radar (ROTHR) site at Amchitka, Alaska, and in FY 1991, includes funding for two additional operational sites. Undersea Surveillance includes funding for operation of three additional TAGOS ships and related data extrapolation in FY 1990 and two in FY 1991. Funding for Contractor Engineering Technical Services

Budget Activity 2 Summary (Cont'd)

(CETS) and Navy Engineering Technical Services (NETS) are reflected in Fleet Operation Support for the first time in FY 1990. These funds were transferred from Budget Activity 7, Central Supply and Maintenance, to better align direct fleet costs.

All available audit savings have been incorporated into the following budget estimates.

II. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout.

	FY 1988 Actual	FY 1989			FY 1990 Budget Estimate	FY 1991 Budget Estimate
		Amended President's Budget	Appropriation	Current Estimate		
TACAIR/ASW Operations	1,542,764	1,363,909	1,447,434	1,437,308	1,401,880	1,424,243
Fleet Air Support	354,814	302,651	302,872	331,006	320,770	321,433
Ship Operations	1,866,322	1,833,500	1,869,367	1,917,134	1,820,969	1,810,136
Ship Maint. & Modernization	4,255,281	4,505,293	4,490,934	4,385,325	4,850,296	4,993,792
Combat Support Forces	93,287	94,300	95,039	98,367	92,139	96,310
Fleet Operations Support	192,730	383,745	384,380	381,731	483,770	533,724
Other Warfare Support	58,224	59,022	58,683	62,640	65,455	67,874
Fleet Air Training	415,238	436,670	433,703	396,886	438,917	433,569
Fleet Ship Training	46,231	43,075	42,995	43,241	42,343	44,535
Unified Commands	31,784	25,474	21,435	26,322	31,958	33,965
Fleet Commands & Staff	107,205	93,187	92,656	93,075	96,359	97,046
Cruise Missile	104,582	119,208	118,647	116,439	115,888	131,950
Maintenance of Real Property	489,818	378,154	373,951	391,655	348,459	362,008
Base Operations	1,341,016	1,354,990	1,319,363	1,408,402	1,512,948	1,564,351
Foreign Currency	133,800	0	0	68,000	0	0
Total	11,033,036	10,993,178	11,051,459	11,157,531	11,622,151	11,914,936

Budget Activity 2 Summary (Cont'd)

B. Reconciliation of Increases and Decreases:

	<u>Amount</u>
1. FY 1989 President's Budget Request (Amended)	\$10,993,178
2. Congressional Adjustments:	
A. Inventory Management	(58,281)
B. ADP Systems	-5,131
C. FEWSG	-17,013
D. C3	2,800
E. Asset Capitalization	-1,080
F. Ship Operations	-9,834
G. Emergent Ship Repair	-9,858
H. De-Niffing/NAVAIR Field Operations	-16,747
I. USS Roberts Repair	-954
J. Persian Gulf Operations	96,500
K. Command Structure Study	57,572
L. Contract Support Services	-4,100
M. NTU/Fleet Modernization	-2,465
N. Goldwater-Nichols	240,000
O. Fuel Savings	-460
P. A-76 Savings	-20,096
Q. Japanese Defense Contribution	-4,500
R. AVDLR	-15,200
S. Outfitting	102,489
	-335,550
3. FY 1989 Appropriated Amount	11,051,459
4. Price Adjustments:	
A. Incremental 2.1% FY 1989 Pay Raise	
1) Classified	6,246
2) Wage Board	1,074
B. Foreign Currency Adjustment	68,000
5. Functional Program Transfers	
A. Transfer In	
1) Base Operations	26,500
	26,500

Budget Activity 2 Summary (Cont'd)

485,782

6. Program Increases:

1) TACAIR/ASW Operations	20,928
2) Fleet Air Support	46,612
3) Ship Operations	53,499
4) Ship Maintenance & Modernization	216,930
5) Combat Support Forces	3,294
6) Fleet Operations Support	2,548
7) Other Warfare Support	5,623
8) Fleet Air Training	18,616
9) Fleet Ship Training	1,372
10) Unified Commands	4,729
11) Fleet Commands & Staff	4,048
12) Maintenance of Real Property	21,085
13) Base Operations	86,498

-481,530

7. Program Decreases:

1) TACAIR/ASW Operations	-31,101
2) Fleet Air Support	-18,487
3) Ship Operations	-5,732
4) Ship Maintenance & Modernization	-323,546
5) Combat Support Forces	-49
6) Fleet Operations Support	-5,318
7) Other Warfare Support	-1,717
8) Fleet Air Training	-55,584
9) Fleet Ship Training	-1,172
10) Fleet Commands & Staff	-4,046
11) Cruise Missile	-2,208
12) Maintenance of Real Property	-3,631
13) Base Operations	-28,939

11,157,531

8. FY 1989 Current Estimate

Budget Activity 2 Summary (Cont'd)

9. Price Adjustments:		
A. Annualization of FY 1989 Direct Pay Raise		145,206
1) Classified	(8,991)	
2) Wage Board	4,578	
3) Foreign National Direct Hires	2,684	
B. FY 1990 Direct Pay Raises	1,729	
1) Classified	(15,371)	
2) Wage Board	6,162	
3) Foreign National Direct Hires	725	
C. Stock Fund	8,484	
1) Fuel	(-164,269)	
2) Non-Fuel	-137,786	
D. Industrial Fund Rates	-26,483	
E. Foreign National Indirect Hire	152,828	
F. Foreign Currency Adjustments	7,586	
G. Other Pricing Adjustments	4,289	
	120,410	
		94,817
10. Functional Program Transfers		
a. Transfers In	(118,738)	
1) Ship Maintenance & Modernization	19,165	
2) Fleet Operations Support	80,602	
3) Other Warfare Support	1,103	
4) Unified Commands	400	
5) Fleet Commands & Staff	687	
6) Maintenance of Real Property	260	
7) Base Operations	16,521	
b. Transfers Out	(-23,921)	
1) Ship Operations	-24	
2) Ship Maintenance & Modernization	-20,057	
3) Fleet Operations Support	-2,000	
4) Base Operations	-1,840	

Budget Activity 2 Summary (Cont'd)

1,407,013

11. Program Increases:

1) TACAIR/ASW Operations	84,439
2) Fleet Air Support	5,107
3) Ship Operations	122,982
4) Ship Maintenance & Modernization	1,018,562
5) Combat Support Forces	3,606
6) Fleet Operations Support	58,167
7) Other Warfare Support	1,813
8) Fleet Air Training	77,903
9) Fleet Ship Training	1,237
10) Unified Commands	5,773
11) Fleet Commands & Staff	1,961
12) Cruise Missile	3,996
13) Maintenance of Real Property	1,829
14) Base Operations	19,638

12. Program Decreases:

1) TACAIR/ASW Operations	-69,452
2) Fleet Air Support	-10,666
3) Ship Operations	-116,133
4) Ship Maintenance & Modernization	-804,096
5) Combat Support Forces	-10,734
6) Fleet Operations Support	-29,331
7) Other Warfare Support	-2,320
8) Fleet Air Training	-25,560
9) Fleet Ship Training	-3,394
10) Unified Commands	-1,644
11) Fleet Commands & Staff	-2,018
12) Cruise Missile	-8,666
13) Maintenance of Real Property	-71,587
14) Base Operations	-26,815

-1,182,416

13. FY 1990 President's Budget Request

11,622,151

Budget Activity 2 Summary (Cont'd)

362,170

14. Pricing Adjustments:
 A. Annualization of FY 1989 Direct Pay Raise
 1) Classified
 2) Wage Board
 3) Foreign National Direct Hires
 B. FY 1990 Direct Pay Raise
 1) Classified
 2) Wage Board
 3) Foreign National Direct Hires
 C. Stock Fund
 1) Fuel
 2) Non-Fuel
 D. Industrial Fund Rates
 E. Foreign National Indirect Hire
 F. Foreign Currency Adjustments
 G. Other Pricing Adjustments

(8,051)
 2,830
 1,357
 3,864
 (21,377)
 10,451
 1,101
 9,825
 (89,051)
 55,276
 33,775
 125,540
 6,338
 1,136
 110,677

-124

15. Functional Transfers:

A. Transfers Out
 1) Ship Operations
 2) Fleet Operations Support

-24
 -100

1,071,281

16. Program Increases:

1) TACAIR/ASW Operations
 2) Fleet Air Support
 3) Ship Operations
 4) Ship Maintenance & Modernization
 5) Combat Support Forces
 6) Fleet Operations Support
 7) Other Warfare Support
 8) Fleet Air Training
 9) Fleet Ship Training
 10) Unified Commands
 11) Fleet Commands & Staff
 12) Cruise Missile
 13) Maintenance of Real Property
 14) Base Operations

63,769
 6,426
 61,140
 819,292
 4,193
 48,737
 1,678
 10,217
 1,282
 3,251
 714
 14,487
 2,389
 33,706

Budget Activity 2 Summary (Cont'd)

17. Program Decreases:	
1) TACAIR/ASW Operations	-76,052
2) Fleet Air Support	-13,148
3) Ship Operations	-118,819
4) Ship Maintenance & Modernization	-836,031
5) Combat Support Forces	-2,017
6) Fleet Operations Support	-17,155
7) Other Warfare Support	-1,225
8) Fleet Air Training	-27,374
9) Fleet Ship Training	-425
10) Unified Commands	-2,168
11) Fleet Commands & Staff	-2,683
12) Cruise Missile	-2,051
13) Maintenance of Real Property	-2,144
14) Base Operations	-39,250
18. FY 1991 President's Budget Request	11,914,936
	(-1,140,542)

Department of the Navy
Operation & Maintenance, Navy

Activity Group: TACAIR/ASW
Budget Activity: II - General Purpose Forces

I. Description of Operations Financed.

This program provides funds for Navy/Marine Corps Tactical Air (TACAIR) and aviation Anti-Submarine Warfare (ASW) forces at a level of readiness which will enable them to perform their primary mission as required in support of national objectives. Tactical squadrons conduct strike operations against a wide range of threats identified in the national strategy and provide long range and local protection against airborne and surface threats. Anti-Submarine Warfare Squadrons locate, destroy and provide force protection against sub-surface threats, and conduct maritime surveillance operations.

Aviation Intermediate Maintenance Department's (AIMD's). This program funds the pay of civilian personnel and day to day operations at the AIMD's.

Primary Mission Readiness (PMR). The peacetime goal for PMR is 88% (including simulators). The FY 1989, FY 1990 and FY 1991 PMR levels are at 87%, which includes a 2% simulator contribution. Although PMR levels below the 88% goal result in less than optimum readiness, deployed crews and crews in workup receive 100% PMR, while non-deployed crews fly at reduced levels. Funds requested include the cost of petroleum, oil, and lubricants (POL); organizational and intermediate (OI) maintenance, squadron supplies, and Aviation Depot Level Repairables (AVDLR). The cost per operating hour for each type/model aircraft is based on actual experience over the previous 18 months.

II. Financial Summary (Dollar in Thousands).

A. Sub-Activity Group Breakout

	FY 1989			FY 1990		FY 1991	
	FY 1988 Actual	Amended Pres. Budget	Appro- piation	Current Estimate	Budget Request	Budget Request	Budget Request
1. Aircraft Ops	1,533,406	1,353,739	1,437,320	1,427,133	1,391,164	1,413,252	1,413,252
2. AIMD	9,358	10,170	10,114	10,175	10,716	10,991	10,991
Total Activity Group	1,542,764	1,363,909	1,447,434	1,437,308	1,401,880	1,424,243	1,424,243

Activity Group: TACAIR/ASW (Continued)

B. Reconciliation of Increases and Decreases.

\$ in 000

1. FY 1989 Current Estimate	1,437,308
2. Pricing Adjustments	
A. Annualization of FY 1989 Direct Pay Raises	
1) Classified	(65)
2) Wage Board	15
3) Foreign National Direct	67
B. FY 1990 Direct Pay Raises	-17
1) Classified	(81)
2) Wage Board	25
3) Foreign National Direct	25
C. Stock Fund	31
1) Fuel	(-50,894)
2) Non-Fuel	-35,836
D. FN Indirect Hire	-15,058
E. Foreign Currency Fluctuation	(31)
F. Other Pricing Adjustments	(242)
	(60)

3. Program Increases	84,439
A. Other Program Growth in FY 1990	(84,439)
1) Squadron Transitions. Increase to support training requirements for squadron transitions (new a/c).	39,702

New A/C	Old A/C	Aircrews	Hours	Amount
AV-8B	A-4M	25	6,300	7,948
F/A-18C	F-4/A-7E	55	14,135	29,463
SH-60F	SH-3H	10	2,967	2,291

2) Squadron Upgrades. Increase to support training requirements for squadron upgrades (new a/c).	17,851

New A/C	Old A/C	Aircrews	Hours	Amount
F/A-18C	F/A-18A	14	2,952	6,489
S-3B	S-3A	10	3,473	7,158
AH-1J/T	AH-1W	16	6,165	4,204

Activity Group: TACAIR/ASW (Continued)

B. Reconciliation of Increases and Decreases (Continued).

\$ in 000

3) SH-60B (LAMPS MK III). Increased training requirements of 7,927 hours for 26 additional aircrews required for SH-60B squadrons.	7,381
4) F/A-18D (HORNET). Introduction of 12 aircrew and 8 aircraft and increase of 3,288 hours to fulfill training and operational requirements for under-the-weather attack, photo reconnaissance, and forward and tactical air control missions. The forward and tactical air control mission was previously performed by the A-4 squadron in Fleet Air Support.	5,741
5) AV-8B (HARRIER). Increase of 1,112 hours for the AV-8B as the required hours per crew per month increase from 21 to 25 hours to support training requirements resulting from the introduction of AV-8B Night Attack Version.	1,415
6) EA-6B (PROWLER). Increase of 554 hours in support of training requirements for 6 additional aircrew.	950
7) CH-53E (SUPER STALLION). Increase of 4,325 hours to support increased deployment of CH-53E's on LHAs and a change in the utilization mix of CH-53E, CH-53D and CH-46E aircraft.	7,202
8) Increase of 3,349 hours to reflect execution changes in squadron aircraft utilization experience.	4,119
9) Increased maintenance of new avionics, other complex equipment and intermediate level maintenance for engine repairs at the AIMDs.	78

-69,452

4. Program Decreases

(-69,452)

A. Other Program Decreases in FY 1990

- 1) Squadron Transitions. Decrease in training requirements associated with squadron transitions (old a/c).

-34,991

New A/C	Old A/C	Aircrews	Hours	Amount
AV-8B	A-4H	-27	-4,037	-3,864
F/A-18C	F-4/A-7E	-51	-13,861	-25,733
SH-60F	SH-3H	-10	-6,859	-5,394

Activity Group: TACAIR/ASW (Continued)

\$ in 000

B. Reconciliation of Increases and Decreases (Continued)

2) Squadron Upgrades. Decrease in training requirements to support squadron upgrades (old a/c).	-17,078																				
<table><tr><td>New A/C</td><td>Old A/C</td><td>Aircrews</td><td>Hours</td><td>Amount</td></tr><tr><td>F/A-18C</td><td>F/A-18A</td><td>-14</td><td>-2,410</td><td>-3,688</td></tr><tr><td>S-3B</td><td>S-3A</td><td>-18</td><td>-5,406</td><td>-9,896</td></tr><tr><td>AH-1J/T</td><td>AH-1W</td><td>-17</td><td>-4,684</td><td>-3,494</td></tr></table>	New A/C	Old A/C	Aircrews	Hours	Amount	F/A-18C	F/A-18A	-14	-2,410	-3,688	S-3B	S-3A	-18	-5,406	-9,896	AH-1J/T	AH-1W	-17	-4,684	-3,494	
New A/C	Old A/C	Aircrews	Hours	Amount																	
F/A-18C	F/A-18A	-14	-2,410	-3,688																	
S-3B	S-3A	-18	-5,406	-9,896																	
AH-1J/T	AH-1W	-17	-4,684	-3,494																	
3) Aircrew Decreases. Decrease of 16 aircrew and 1,349 hours in training requirements for F-14, A-6, and RF-4B aircrews.	-3,431																				
4) CH-53D/CH-46E. Decrease of 6,341 hours to support increased deployment of CH-53E on LHAs and change in the utilization mix of CH-53E, CH-53D and CH-46E aircraft.	-7,253																				
5) Decrease in staff hours due to stand-down of CVW-10 and consolidation of MAG-12 and MAG-15 staffs.	-5,555																				
6) Decrease in funding for Persian Gulf Operations.	-1,144																				
5. FY 1990 President's Budget Request	1,401,880																				
6. Pricing Adjustments	34,646																				
A. Annualization of FY 1990 Direct Pay Raises	(25)																				
1) Classified	9																				
2) Wage Board	33																				
3) Foreign National Direct	-17																				
B. FY 1991 Direct Pay Raises	(108)																				
1) Classified	38																				
2) Wage Board	39																				
3) Foreign National Direct	31																				
C. Stock Fund	(34,428)																				
1) Fuel	18,112																				
2) Non-Fuel	16,316																				
D. FN Indirect Hire	(29)																				
E. Other Pricing Adjustments	(56)																				

Activity Group: TACAIR/ASW (Continued)

B. Reconciliation of Increases and Decreases (Continued).

\$ in 000

63,769

(24)

(63,745)

35,304

7. Program Increases

A. One-Time FY 1991 Costs

1) Increase of one additional civilian personnel workday. 24

B. Other Program Growth in FY 1991

1) Squadron Transitions. Increase in training requirements to support squadron transitions (new a/c).

New A/C	Old A/C	Aircrews	Hours	Amount
AV-8B	A-4M	27	5,085	6,435
F/A-18C	A-7E	54	13,162	23,757
SH-60F	SH-3H	19	6,486	5,112

2) Squadron Upgrades. Increase in training requirements to support squadron upgrades (new a/c).

13,367

New A/C	Old A/C	Aircrews	Hours	Amount
S-3B	S-3A	15	5,230	8,938
SH-2F	SH-2G	4	1,139	1,228
AH-1T	AH-1W	13	3,943	3,201

3) SH-60B (LAMPS MK III). Increased training requirements of 4,167 hours for 17 additional aircrews required for SH-60B squadrons.

3,953

4) F/A-18D (HORNET). Introduction of 22 aircrews and 16 aircraft and an increase of 6,058 hours to fulfill training and operational requirements for under-the-weather attack, photo reconnaissance, and forward and tactical air control missions. The forward and tactical air control mission was previously performed by the A-4 squadron in Fleet Air Support.

9,487

5) Aircrew Increases. Increase of 8 aircrews and 1,024 hours in A-6, E-2C, and EA-6B squadron aircrews training requirements.

1,454

6) Increased maintenance of new avionics, other complex equipment and intermediate level maintenance for engine repairs at the AIMDs. 180

Activity Group: TACAIR/ASW (Continued)

\$ in 000

B. Reconciliation of Increases and Decreases (Continued).

8. Program Decreases

A. One-Time FY 1990 Costs

1) Decrease in FNI Hire Benefits.

B. Other Program Decreases in FY 1991

1) Squadron Transitions. Decrease in training requirements associated with squadron transitions (old A/C).

New A/C	Old A/C	Aircrews	Hours	Amount
AV-8B	A-4M	-27	-3,183	-3,122
F/A-18C	A-7E	-58	-14,659	-21,993
SH-60F	SH-3H	-19	-2,485	-1,493

(-9)
-9
(-76,043)
-26,608

-76,052

2) Squadron Upgrades. Decrease in training requirements associated with squadron upgrades (old A/C).

-17,128

New A/C	Old A/C	Aircrews	Hours	Amount
S-3B	S-3A	-19	-6,598	-11,536
SH-2G	SH-2F	-9	-2,378	-2,292
AH-1T	AH-1W	-13	-4,149	-3,300

3) Aircrew Decreases. Decrease of 48 aircrews and 12,865 hours in F-14, CH-53, OV-10A, and RF-4 squadron aircrew training requirements.

-21,794

4) Decrease of 2,535 hours to reflect execution changes in squadron aircraft utilization.

-10,387
-126

5) Decrease in civilian personnel (-9 E/S).

1,424,243

9. FY 1991 President's Budget Request

III. Performance Criteria.

A. Aircraft Operations

1-2-16

Activity Group: TACAIR/ASW (Continued)

IV. Personnel Summary

Military E/S	FY 1988	FY 1989	FY 1990	FY 1991
	<u>44,531</u>	<u>45,294</u>	<u>45,326</u>	<u>45,546</u>
Officer	6,091	6,195	6,063	6,078
Enlisted	38,440	39,099	39,263	39,468
Civilian E/S	322	328	328	319
USDH	204	210	210	201
FNDH	90	90	90	90
FNTH	28	28	28	28

Department of the Navy
Operation and Maintenance, Navy

Activity Group: Fleet Air Support
Budget Activity: II - General Purpose Forces

1. Description of Operations Financed:

This program provides funds for those support functions necessary to achieve and maintain the required operational capabilities of fleet squadrons, as follows:

Flying Hours. Provides flying hours for electronic warfare (EW) services, aggressor aircraft, ship and shorebased air logistic support, and special operational test and evaluation support. Funds requested include the cost of petroleum, oil, and lubricants (POL); organizational and intermediate (OI) maintenance, aviation depot repairables, and squadron supplies. The cost per operating hour for each type/model aircraft is based on actual experience over the previous 18 months.

Air TAD. Funds for Temporary Additional Duty (TAD) requirements in support of operational missions of TACAIR/ASW and other support squadrons including transportation, per diem and miscellaneous expenses.

Other Aircraft Support. Includes costs not specifically identifiable to the flying hour program. For example, Individual Material Readiness List (IMRL) outfitting funds are used to finance initial issues of Ground Support Equipment. These items are used by aviation activities to perform organizational and intermediate levels of aircraft maintenance. The IMRL is a tailored allowance list which is updated annually to support modified equipment or the introduction of new or additional aircraft/system. The operation and maintenance of drones, and transportation of squadron supplies/equipment during squadron rotations are included in this activity group.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	FY 1989			FY 1990 Budget Request	FY 1991 Budget Request
		Amended Pres. Budget	Appro- piation	Current Estimate		
1. Aircraft Ops	227,453	190,002	189,998	218,155	208,991	208,101
2. Air TAD	48,960	39,966	39,904	39,904	39,071	38,975
3. Other A/C Support	78,401	72,683	72,970	72,947	72,708	74,357
Total	354,814	302,651	302,872	331,006	320,770	321,433

Activity Group: Fleet Air Support (Continued)

\$ in 000

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		331,006
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(4)	
B. FY 1990 Direct Pay Raises	4	
1) Classified	(11)	
C. Stock Fund	11	
1) Fuel	(-6,928)	
2) Non-fuel	-4,582	
D. Industrial Fund Rates	-2,346	
E. Other Pricing Adjustments	(43)	
	(2,193)	
		5,107
3. Program Increases		
A. Other Program Growth in FY 1990	(5,107)	
1) Increase of 1,642 hours for the MH-53E aircraft to replace the RH-53D to support increasing minesweeping mission requirements.	1,384	
2) Increase for material costs and commercial contract equipment maintenance requirements.	1,355	
3) Increased contract maintenance costs for the C17-39 and UC-12 aircraft.	2,368	
		-10,666
4. Program Decreases		
B. Other Program Decreases in FY 1990	(-10,666)	
1) Reduction of 1,908 hours in A-4 squadron associated with the introduction of the F/A-18D aircraft in TACAIR to fulfill the forward and tactical air control mission.	-2,059	
2) Decrease of 989 hours for RH-53D aircraft as replaced by the MH-53E aircraft to support minesweeping mission requirements.	-1,865	
3) Decrease of 2,397 hours in HH-46 mission requirements.	-2,401	
4) Net decrease in Fleet Air Support mission requirements.	-1,760	
4) Reduction in aviation unit TAD deployments to range sites, operational mission support for weapons detachments, and maintenance detachments for deployed squadrons.	-1,122	

Activity Group: Fleet Air Support (Continued)

\$ in 000

B. Reconciliation of Increases and Decreases.

4)	Decrease in of commercial air services contracts to include towing of airborne targets, performing as targets for radar and fire control training, coordinating exercises and simulating enemy aircraft.	-1,440	
5)	Decrease in Civilian Personnel (-1 E/S)	-19	
5.	FY 1990 President's Request		320,770
6.	Pricing Adjustments		7,385
A.	Annualization of FY 1990 Direct Pay Raises	(4)	
1)	Classified	4	
B.	FY 1991 Direct Pay Raises	(17)	
1)	Classified	17	
C.	Stock Fund	(4,745)	
1)	Fuel	2,277	
2)	Non-Fuel	2,468	
D.	Industrial Fund Rates	(629)	
E.	Other Pricing Adjustments	(1,990)	
7.	Program Increases		6,426
A.	One-Time FY 1991 Costs	(3)	
1)	One additional civilian personnel workday.	3	
B.	Other Program Growth in FY 1991	(6,423)	
1)	Initial outfitting requirements for VFA squadron for deployment onboard the LHD-1.	1,503	
2)	Increase of 3,941 hours for electronic warfare requirements as ES-3A begins replacement of EA-3/TA-3 aircraft.	4,466	
3)	Increased contract maintenance costs for the CT-39 and UC-12 aircraft.	454	

Activity Group: Fleet Air Support (Continued)

	\$ in 000
B. Reconciliation of Increases and Decreases.	
8. Program Decreases	
A. Other Program Decreases in FY 1991	
1) Reduction of 4,384 hours in A-4 squadron associated with the introduction of the F/A-18D aircraft in TACAIR to fulfill the forward and tactical air control mission.	(-13,148)
2) Decrease of 1,506 hours for electronic warfare requirements as ES-3A begins replacement of EA-3/TA-3 aircraft.	-5,200
3) Net decrease in Fleet Air Support requirements.	-3,433
4) Reduction in aviation unit TAD deployments to range sites.	-1,948
5) Net decrease in commercial air services contracts to include towing of airborne targets, performing as targets for radar and fire control training, coordinating exercises and simulating enemy aircraft.	-338
6) Decrease in Initial Material Readiness Support (IMRL) in support of ground support equipment, new aircraft systems, and other aircraft support.	-1,538
7) Decrease in Civilian Personnel (-3 E/S)	-616
9. FY 1991 President's Request	-75
	321,433

Activity Group: Fleet Air Support (Continued)

III. Performance Criteria.

A. Aircraft Operations

	FY 1988			FY 1989		
	Average	Flying	Cost	Average	Flying	Cost
	Operating	Hours	(\$000)	Operating	Hours	(\$000)
	Aircraft			Aircraft		
	467	213,988	227,454	479	207,659	218,155
Hours per Aircraft		458			433	
Cost per Hour			1,063			1,051

	FY 1990			FY 1991		
	Average	Flying	Cost	Average	Flying	Cost
	Operating	Hours	(\$000)	Operating	Hours	(\$000)
	Aircraft			Aircraft		
	482	206,533	208,997	472	203,812	208,108
Hours per Aircraft		428			432	
Cost per Hour			1,012			1,021

- B. TAD Per Diem Days
C. SAAM Flying Hours
D. Units Receiving IMRL Items
E. Drones Maintained

	FY 1988			FY 1989			FY 1990			FY 1991		
	2,042,163			1,636,525			1,604,924			1,591,849		
	12,633			13,065			13,070			13,085		
	335			335			336			339		
	611			611			611			611		

IV. Personnel Summary.

Military E/S

Officer
Enlisted

Civilian E/S

USDH
FNDH
FNIR

	FY 1988			FY 1989			FY 1990			FY 1991		
	10,693			11,674			11,750			11,757		
	1,364			1,592			1,563			1,570		
	9,329			10,082			10,187			10,187		
	24			22			21			18		
	24			22			21			18		
	0			0			0			0		
	0			0			0			0		

Department of The Navy
Operation & Maintenance, Navy

Activity Group: General Purpose Ship Operations
Budget Activity: II- General Purpose Forces

I. Description of Operations Financed.

This program provides resources for operating tempo, organizational level repairs, training exercises and associated support required to continuously deploy fully combat ready ships in support of national objectives and to ensure control of the sea.

The General Purpose Naval Force is comprised of 503 units in FY 1990, including 15 aircraft carriers, 4 battleships, 183 surface combatants, 97 submarines, 63 amphibious force ships, 13 patrol and mine warfare ships, 60 combat logistics ships and 68 support force ships. In FY 1991 the General Purpose Naval Force is comprised of 495 units, including 15 aircraft carriers, 4 battleships, 61 surface combatants, 97 submarines, 62 amphibious force ships, 12 patrol boats and mine warfare ships, 61 combat logistic ships and 70 support force ships. Funding provides fossil fuel, utilities, supplies and equipment (S&E), nuclear material consumption and nuclear core reprocessing and charter of lease back units, as follows:

Ship's Fuel - includes ship propulsion fuel to operate the main engines of the conventionally powered ship's, auxiliary diesel engines of nuclear vessels, auxiliary equipment and small boats.

Ship's Utilities - includes the cost of steam, electricity, water, sewage treatment and other utilities (excluding telephone and garbage removal) incurred by active fleet ships and certain centrally managed service craft while partially or totally "cold iron" in port.

Supplies and Equipment (S&E) - includes repair parts and other operating target costs:

Repair Parts (organizational maintenance) funding provides parts and repair related consumables required to accomplish organization level equipment maintenance. Organizational level maintenance is that corrective and preventive maintenance accomplished by the ship's crew. This is the lowest level of maintenance achievable, is cost effective in that the ship's work force performs the repairs, and is directly related to the readiness of the operating units.

Other Operating Target (OPTAR) funding includes administrative and housekeeping items; and items

Activity Group:
General Purpose Ship Operations (cont'd)

having a limited life such as lubricants, boiler compound, and bilge cleaner; equipment items, such as damage control pumps and blowers; labor saving devices such as power tools, office machines, duplicators; general purpose test equipment; Automated Data Processing (ADP); the cost of tugs, pilotage, and other related services provided by commercial or other non-naval forces; and the cost of material purchased for medical and dental purposes.

Leaseback (Charter) includes costs associated with leasing stores ships (TAFS) which provides dry cargo resupply for ships on station in operating areas, oilers (TAOs) which provide complete replenishment of petroleum products at sea, ocean tugs (TATFs) which operate as units of the Mobile Logistics Salvage Forces and take in tow Navy ships which have battle damage or are otherwise inoperable, and the ammunition ship (TAE) which provides rapid transfer of missiles and other munitions to ships alongside or with helicopters. Leaseback costs include maritime crew salaries, fuel ship repairs, supplies and equipment, conversion as applicable, and administrative expenses. Other charter services include leased tanker support for forward deployed units, deep submergence support and lease the lease of commercial tugs.

Nuclear Material funding provides reimbursement to U.S. Department of Energy (DOE) for consumed nuclear material and cost of reprocessing expended nuclear cores.

II. Financial Summary (Dollars in Thousands).

	FY 1988 Actual	FY 1989			FY 1990		FY 1991	
		Amended Pres. Request	Appro- priation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request
Fuel	606,796	593,093	592,076	626,446	534,977	541,755		
Utilities	192,659	183,034	182,708	199,991	210,647	210,863		
Repair Parts	467,176	417,661	432,257	433,088	419,623	411,746		
Other OPTAR	300,680	245,815	255,533	255,229	264,856	253,629		
MSC Charter	303,574	344,600	357,496	353,083	304,536	328,287		
Nuclear	54,755	49,297	49,297	49,297	86,330	63,856		
Total Act. Group	1,925,640	1,833,500	1,869,367	1,917,134	1,820,969	1,810,136		
Less Fuel Credits	-59,318							
Adjusted Total	1,866,322	1,833,500	1,869,367	1,917,134	1,820,969	1,810,136		

Activity Group:
General Purpose Ship Operations (cont'd)

B. Reconciliation of Increases and Decreases.

	Amount
1. FY 1929 Current Estimate	1,917,134
2. Pricing Adjustments	
a. Stock Fund	
(1) Fuel	(-87,207)
(2) Non-Fuel	-82,886
b. Industrial Fund Rates	-4,321
c. Other Pricing Adjustments	(-17,070)
	(1,287)
3. Functional Program Transfers	
a. Transfers Out	
1) Intra-Appropriation	(-24)
a) Standard Level User Charge funds to rent commercially leased space transferred to Budget Activity 9, Base Operations Support, for direct payment to General Services Administration Federal Building Fund.	
	-24
4. Program Increases	122,982
a. Annualization of FY 1989 Increases.	
1) Phased delivery of 9 new ships and reactivation of one BB in FY 1989 for which a full ship year of support is required in in FY 1990.	(19,868)
2) Phased delivery of two new TAO's for which a full charter year is required in FY 1990 (TAO 191 +156 and TAO 195 +242 per diem days).	6,913
b. Other Program Increases in FY 1990.	
1) Program increase for repair parts and other opstar support associated with the the phased delivery of 15 new construction ships including one CWN, 3 CG's, 4 SSN's, 5 MCM's and 3 LSD's.	(103,114)
	16,603

Activity Group:
General Purpose Ship Operations {cont'd}

2) Program increase to support the phased delivery of 3 TAO's and associated increase of 364 charter days. (TAO 192 +62, TAO 194 + 25, and TAO 197 +277).	11,848
3) Increased fuel and utilities costs associated with the requirement to support 124 additional conventional ship operating months and 38 additional nuclear ship operating months due to a decrease in ship maintenance availabilities in FY 1990.	38,141
4) TAO 194 pre-delivery costs for orientation and training of essential crew personnel and technical manual support prior to ship delivery.	210
5) Program increase to support a larger and more complex mix of nuclear core reprocessings. Four additional reprocessings are scheduled for FY 1990.	35,357
6) Increase in time charters for commercial tugs and tows based on FY 1990 operational requirements.	955

5. Program Decreases

-116,133

a. Annualization of FY 1989 Decreases	(-8,881)
1) Phased retirement of twelve ships (1 FFG, 7 FF's, 3 SSN's and 1 MSO) in FY 1989.	-6,413
2) Transfer of three ships to the Navy Reserve. (1 FF, FFG, and 1 MCM).	-2,468
b. One-time FY 1989 Costs.	(-630)
1) Pre-delivery costs for TAO 192, TAO 195, and TAO 197.	-630
c. Other Program Decreases in FY 1990.	(-106,622)
1) Reduction to USN force levels and operating tempo in the Persian Gulf and North Arabian Sea in FY 1990.	-47,643
2) Phased retirement of 14 ships in FY 1990	-6,514

Activity Group:
General Purpose Ship Operations (cont'd)

- (2 DDG's, 4 SSN's, 3 SS's, 3 LSD's, and 2 AO's).
- 3) Assignment of 5 older TAO's to a reduced operating/contingency status to allow full funding for per diem day charter rates for newer TAO 187 class oilers and other high priority charter services. -48,652
- 4) Reduction to the per diem day funding for the Indian Ocean Readiness Tanker to adjust resources to anticipated FY 1990 requirements. -904
- 5) Decrease in optar and repair parts costs due to projected efficiencies to be achieved in the management and turn-in of excess supplies and materials. -2,909

6. FY 1990 President's Budget Request 1,820,969

7. Pricing Adjustments (34,290)
a. Stock Fund 27,393
1) Fuel 6,897
2) Non-Fuel (4,918)
b. Industrial Fund Rates (7,662)
c. Other Pricing Adjustments

46,870

-24

61,140

9. Program Increases (31,299)
a. Annualization of FY 1990 Increases 7,103
1) Phased delivery of 16 new construction

Activity Group:
General Purpose Ship Operations (cont'd)

ships in FY 1990 including one CVN, 3 CG's, 4 SSN's, 3 LSD's and 5 MCM's for which a full year of support is required in FY 1991.

2) Delivery of three TAO's in FY 1990 for which a full charter year is required in FY 1991 (TAO 192 + 303, TAO 194 +340, and TAO 197 +88 per diem days). 24,196

b. Other Program Increases in FY 1991. (29,841)

1) Program increase for repair parts and other opstar support associated with the phased delivery of 13 new construction ships including 3 CG's, 5 SSN's, 1 DDG, 1 AOE, 2 MCM's, and 1 MHC. 7,126

2) Program increase to support the transfer of TAO 108 from reduced to full operating status (+320 per diem days) and delivery of TAO 196 (+117 per diem days) in FY 1991. 13,527

Transfer of TAO 108 from reduced to full operating status is a matter of operational necessity due to the retirement of AO's 98 and 99 in FY 1990.

3) TAO 196 predelivery costs. 210

4) Deactivation costs for TAO 105, TAO 107, and TAO 108. 8,978

10. Program decreases. 118,819

a. Annualization of FY 1990 decreases.

1) Phased retirement of 14 ships (2 AO's, 2 DDG's, 3 LSD's, 4 SSN's and 3 SS's). (-15,804)

2) Transfer of 2 FFG's and 1 LST to the Navy Reserve in FY 1990. -7,054

3) Retirement of TAO 106 in FY 1990. -3,227

One-time FY 1990 decreases. -5,523

1) TAO 194 predelivery costs. (-210)

c. Other program decreases in FY 1991. (-102,805)

1) Phased retirement of 18 ships (13 DDG's and 5 SSN's.) -12,194

Activity Group:
General Purpose Ship Operations (cont'd)

2) Transfer of 4 MCM's and one LSD to the Navy Reserve.	-605
3) Five fewer nuclear cores are scheduled to be returned for reprocessing by DOE in FY 1991.	-25,064
4) Program reduction to fuel and utilities due to the requirement to support 54 fewer conventional ship operating months in FY 1991.	-21,203
5) Transfer of TAO 143 from a partially reduced in FY 1990 to a fully reduced operating status in FY 1991.	-6,489
6) Reduction to the per diem day funding of the Indian Ocean readiness tanker to match resources to projected FY 1991 requirements.	-1,092
7) Reduction in time charters for commercial tugs and tows based on projected FY 1991 operational requirements.	-1,256
8) Program reduction due to projected efficiencies to be achieved in Navy Stock Fund fuel purchases.	-16,165
9) Decrease in optar and repair parts costs due to projected efficiencies to be achieved in the management and turn-in of excess supplies and materials.	-3,197
10) General decrease in support for material replacement items, such as mooring lines, life jackets, damage control equipment repair parts, and direct turnover material used to perform corrective and preventive organizational level maintenance.	-15,540

1,810,136

11. FY 1991 President's Budget Request

Activity Group:
General Purpose Ship Operations (cont'd)

III. Performance Criteria.

A. Pursuant to House Report 110-563 of 5 April 1988, the performance criteria for ship operations have been expanded to include additional measurements that relate resource expenditures to the Navy's steaming day requirements. Specifically, the number of ship operating months to be supported, the average number of surface ships deployed, and the estimated number of exercises to be conducted in each year of the budget have been added to the table below to assist in relating the Navy's resource requests to steaming and training goals. Additional measurements that more precisely tie ship steaming to fleet mission readiness are presently being studied by the Navy in support of a larger Department of Defense Study in this area. It is anticipated that these study efforts will be completed by the end of Fiscal Year 1990.

	FY 1988	FY 1989	FY 1990	FY 1991
Ship Inventory	457	452	451	441
Barrels of Fossil Fuel Required (000)	22,227	22,947	22,746	21,863
Ship Years Supported	463.7	456.4	454.6	446.6
Conventional	353.4	345.3	342.7	334.2
Nuclear	110.3	111.1	111.9	112.4
Ship Operating Months Supported	4,514	4,500	4,662	4,695
Conventional	3,524	3,472	3,596	3,542
Nuclear	990	1,028	1,066	1,153
Underway Steaming Hours	1,114,748	1,080,534	1,076,944	1,059,335
Conventional	852,788	806,597	800,584	765,974
Nuclear	261,960	273,937	276,360	293,361
Average Number of Surface Ships Deployed	90	88	82	82
Estimated Exercises to be Conducted	303	319	309	311
Major	7	7	7	6
Minor	296	312	302	305

Activity Group:
General Purpose Ship Operations (cont'd)

Maintenance Manhours Required (000)	65,744	65,802	65,795	65,144
Maintenance Manhours Funded (000)	56,384	54,238	54,680	54,991
Nuclear Cores returned to be reprocessed/cost (\$M)	10/46.3	7/40.1	11/76.7	6/53.7
Nuclear Material Consumption	9,371	9,197	9,29	10,151
Submarines (\$000)	5,424	5,814	5,763	6,883
Surface Ships (\$000)	3,947	3,383	3,866	3,268
Per Diem Days Chartered:	9,913	10,552	11,314	11,797
Active Fleet Support	9,913	10,552	9,708	10,193
Reduced Operating Status	0	0	1,561	1,469
Inactivation	0	0	45	135
Deep Submergence Support (Charter Unit)/(\$000)	2/6,050	2/6,534	2/5,513	2/4,286
Tanker Support for CVBG's (Charter Support) (\$000)	7,980	4,284	3,380	2,288
Amphibious/Console Support (Charter) (\$000)	655	755	800	778

IV. Personnel Summary.

	FY 1988	FY 1989	FY 1990	FY 1991
End Strength (E/S)				
A. Military	188,192	203,794	206,420	205,706
Officer	12,187	11,651	12,120	12,179
Enlisted	176,005	192,143	194,300	193,527

Department of the Navy
Operation and Maintenance, Navy

Activity Group: Ship Maintenance and Modernization
Budget Activity: II General Purpose Forces

I. Description of Operations Financed

This program funds depot and intermediate level maintenance and associated support for the General Purpose Forces as follows:

Regular Overhaul. This category includes maintenance performed by the shipyards on ships and material requiring major overhaul, or complete rebuilding of parts, assemblies, subassemblies and end items and correction of all discrepancies found during pre-overhaul tests and inspections or developed from maintenance history analysis. The repairs restore the ship, including all operating subsystems which affect safety or current combat capability, to established performance standards.

Restricted and Technical Availabilities (RA/TA). A restricted availability (RAV) is for the accomplishment of specific items of work by a repair activity, normally with the ship present, during which period the ship is rendered incapable of fully performing its assigned mission and tasks due to the nature of the repair work. A technical availability (TAV) is for the accomplishment of specific items of work by a repair activity, normally without the ship present, during which period the ship's ability to fully perform its assigned mission and tasks is not affected by the nature of the repair work. RA/TA repairs include voyage repairs, selected restricted availabilities. Phased maintenance availabilities, service craft overhauls, repairs during post shakedown of new units, interim drydockings, battery renewals and various other miscellaneous type repairs.

Fleet Modernization Program. The Fleet modernization program for General Purpose forces is designed to upgrade ships of the fleet to be mission capable in countering current and projected threats, improve capabilities, and comply with imposed requirements. Installation of improvements are programmed to coincide with equipment deliveries and ship availabilities. Funding includes cost of preliminary design, preparation of blue prints, installation of equipment and updating of ships records to reflect the installation. Alterations are authorized for a ship or ship type after it has been demonstrated that there is a need for the improvement and that the particular installation will accomplish that improvement.

Activity Group:
Ship Maintenance and Modernization (cont'd)

Outfitting. The general purpose forces outfitting account provides non-aviation and follow-on outfitting support for active ships, Navy owned equipment installed aboard Coast Guard ships, and other selected or unique outfitting programs as required. Support is provided for outfitting and allowance changes resulting from installation of new equipment, modification of equipment, special equipment programs, revision of allowance parts lists and allowance equipment lists, modification of allowance computation rules, and other approved allowance changes.

In FY 1989, the Outfitting program is functionally transferred to the Other Procurement, Navy appropriation in order to ensure consistency in the Department's budgeting procedures for initial spares since the ship's outfitting account is the only initial spare account not funded in the appropriate procurement account. This action complies with direction in the FY 1989 DOD Appropriation Act. The remaining funding in the outfitting sub-activity group supports Integrated Logistics Overhauls (ILO) and Integrated Logistics Review (ILR) of ships going through major maintenance periods. Support ensures ships are outfitted with the right repair parts, technical documentation, and PMS coverage. ILO support analyzes configuration information, corrects imbedded errors, and accurately documents provisioning data for onboard equipment/systems.

Berthing and Messing provides for operation and maintenance of 98 mobile berthing and messing facilities. Requirements for the craft are based on the need to accommodate shipboard personnel assigned to ships undergoing repair and alteration when ships are made uninhabitable due to shipwork. Any requirements which can not be met by use of the craft are fulfilled by the lease of berthing and messing facilities from commercial sources or government quarters. In addition, funding in this program finances overhaul, repair, and drydocking of afloat berthing and messing service craft.

Intermediate Level Maintenance is that fleet maintenance which is normally performed by Navy personnel on tenders, repair ships, aircraft carriers, and shore intermediate maintenance activities (SIMAs). The IMAs use either their specialized equipment and specialized skills to perform maintenance actions aboard a customer ship or use their own organic shop facilities to repair and maintain equipment on a ship-to-shop basis. IMAs are assigned to repair and test weight handling equipment, repair small boats, repair service craft, and overhaul small boat engines. IMA boiler repair capability includes manufacturing casting sections, bending and installing tubes, and installing refractory. All afloat IMAs are assigned divers who scrub sea growth from ships and perform repairs to the external underwater hull, propellers, and rudders. IMAs also provide such services as printing, photography, optical repairs, engraving, canvas work, strainer shield manufacture, and certain IMA designated preventive maintenance actions.

Activity Group:
Ship Maintenance and Modernization (cont'd)

Inactivation of Ships provides for the inactivation and disposal of nuclear submarines and surface vessels according to established schedules. The program also supports temporary lay-up of submarines and surface ships. Costs of submarine inactivations include de-fueling, blanking of sea connections, removing hazardous materials and fluids, removing equipment and repair parts of immediate value to operating forces, and placing the ship in a safe condition until the final disposal method is determined.

Maintenance Improvement Support includes:

Surface Ship Maintenance and Performance Monitoring System which supports placing and maintaining various designated surface ship classes on engineered maintenance strategies, and for devising and implementing engineering, technical, and logistic support approaches to extend the ship operating cycle under these maintenance strategies to the maximum extent practical without degrading material readiness of the fleet. These maintenance strategies result in fewer ship overhauls or the elimination of ship overhauls in some cases.

Intermediate Maintenance Activity Upgrade program which provides required general engineering and analysis, modern industrial plant equipment, and collateral equipment necessary to ensure the proper installation of equipment.

Submarine Ship System Performance Monitoring and Support (SSSPMS) provides engineering/technical management and logistics support for nuclear attack submarines which have extended operational intervals between major overhaul.

Acoustic Trials of submarines following an overhaul or depot modernization period and at the midpoint of each ship's operating cycle. These trials provide the basic data from which the noise baseline characteristics of each ship may be obtained. In addition, noise related problems are identified and corrective action is taken.

Planning and Engineering For Repair and Alterations for Submarines and Surface Ships. The three planning and engineering for repair and alterations (PERA) detachments for surface ships and the Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP) detachment for submarines perform a myriad of engineering technical, and logistic tasks. These efforts transferred from Budget Activity 7 in FY 1990.

Activity Group:
Ship Maintenance and Modernization (cont'd)

II. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout:

	FY 1988			FY 1989			FY 1990		FY 1991	
	FY 1988	Amended	Appro-	Current	FY 1990	FY 1991	Budget	Budget	Budget	Request
	Actual	Pres. Budget	priation	Estimate	Request	Request	Request	Request	Request	Request
Ship Overhauls	1,128,692	726,076	819,185	1,033,477	1,249,585	1,542,085				
Restr./Tech. Avail	1,418,773	1,953,039	2,096,831	1,782,064	2,002,704	1,827,092				
Intermediate Maint.	258,185	232,227	211,440	269,000	272,211	263,305				
Fleet Modern. Program	942,894	1,045,042	1,127,262	1,070,085	1,013,322	1,027,812				
Outfitting	306,969	319,246	0	8,703	8,818	8,856				
Planning and	0	0	0	0	19,130	19,649				
Engineering For Repairs	31,761	39,846	39,780	39,747	35,032	36,178				
Berthing/Messing	29,118	30,873	30,577	29,008	34,150	36,267				
Submarine EOC	74,332	90,641	90,318	87,477	143,391	157,700				
Inactivation of Ships	64,557	68,303	69,206	65,764	71,953	74,848				
Main. Improve. Supt.										
Total Activity Group	4,255,281	4,505,293	4,484,599	4,385,325	4,850,296	4,993,792				

Activity Group:
Ship Maintenance and Modernization (cont'd)

B. Reconciliation of Increases and Decreases

	Amount
1. FY 1989 Current Estimate	\$4,385,325
2. Pricing Adjustments	
A. Annualization of FY 1989 Direct Pay Raises	(223)
1) Classified	116
2) Wage Board	96
3) Foreign National Direct Hires	11
B. FY 1990 Direct Pay Raises	(232)
1) Classified	181
2) Wage Board	28
3) Foreign National Direct Hires	23
C. Stock Fund	(-1,753)
1) Fuel	-14
2) Non-Fuel	-1,739
D. Industrial Fund Rates	(168,087)
F. Foreign Currency Adjustments	(14,290)
G. Other Pricing Adjustments	(70,318)
3. Functional Program Transfers	
A. Transfers In	(19,165)
i) Intra-Appropriation	19,165

-892

a) Transfer of the Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP) and the Planning and Engineering for Repairs and Alterations (PERAS) programs from Budget Activity 7 - Central Supply and Maintenance ensures consistency with Department-wide budget and funding policy aimed at consolidating efforts which provide management support for ships availabilities and modernization. SUBMEPP is located in Portsmouth, NH., while PERA detachments are located in Philadelphia, PA. (Cruiser/Destroyer Det), Norfolk, VA. (Auxiliary Service Craft Det), San Francisco, CA. (Combat Service Craft Det), and Bremerton, WA. (Aircraft Carrier Det). The transfer includes funding for 211 civilian end strength and support costs.

Activity Group:
Ship Maintenance and Modernization (cont'd)

(-20,057)

B. Transfers Out

- 1) Intra-Appropriation
 - a) Standard Level User Charge (SLUC) transfer to the Federal Building Fund due to recent space changes occurring at the PERA Aircraft Carrier (CV) Detachment at Bremerton, WA. -98
 - b) Transfer of resources for design engineering efforts performed at the SUPSHIPS activities to Budget Activity 7 - Central Supply and Maintenance. Adjustment reflects the transfer of resources from reimbursable customers to SUPSHIP direct mission funding. Design engineering is a direct mission responsibility of the SUPSHIPS and should not be funded on a reimbursable basis. -19,359
 - c) Transfer to Budget Activity 7 to reflect the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of compromise to the acquisition procurement process. Recent examination by the Naval Investigative Service and by the Navy Inspector General have shown that excessive contractor involvement contains the potential for disclosure of sensitive information and improper preparation of specifications or processing of procurement documentation. -600

1,018,562

4. Program Increases

(1,018,562)

A. Other Program Growth in FY 1990

- 1) Increase required for emergent repairs due to an increase in operating months between FY 1989 and FY 1990. 2,267
- 2) Increase in Service Craft and Deep Submergence Vehicle overhaul/repair funding due to an increase of one overhaul, a change in the mix of overhauls, and advance funding for the FY 1991 overhaul of NR-1. 17,631

Activity Group:
Ship Maintenance and Modernization (cont'd)

3) Increased funding required for Phased Maintenance Availabilities (PMAs) due to a change in the mix of ships undergoing maintenance including an increase in the number of docking vice non-docking availabilities.	49,976
4) Increase in fleet Post Shakedown Availability (PSA) requirements due to 6 more PSAs scheduled in FY 1990 than FY 1989.	3,382
5) Growth in Intermediate Maintenance Activity (IMA) workload based on an increase in the number of availabilities which require IMA work.	12,857
6) Increase in Other Planned RA/TA, primarily attributable to major Restricted Availabilities (RAVs) on USS LASALLE (AGF-11), USS WISCONSIN (BB-64), and USS SPHINX (ARL-24).	11,360
7) Increase required for habitability improvements on 98 ships in FY 1990 vice 70 ships in FY 1989. Many of these improvements are required as a result of ship configuration changes generated by Vertical Launch System (VLS) and New Threat Upgrade (NTU) installations, as well as upgrades required on auxiliary ships resulting from the new initiative to put women on ships.	8,140
8) Increase for supplies and equipment repair and replacement required to sustain increased Shore Intermediate Maintenance Activity (SIMA) workload requirements.	1,441
9) Increase in personnel benefits due to Federal Employee Retirement System (FERS) participation.	28
10) Increase required for Selected Restricted Availabilities (SRAs) due to a net increase of four SRAs including one carrier and a change in the mix of ships undergoing SRAs.	44,589
11) Increase results from a change in the number and mix of ships being overhauled between FY 1989 and FY 1990 as shown below:	527,019

Activity Group:
Ship Maintenance and Modernization (cont'd)

	Change in No. Ships	Change in Dollars
Carriers	+1	(259,800)
Cruisers (Nuclear)	+1	(191,724)
Advance Funding		(73,916)
AERP/PERA		(1,579)
12) Increase provides for the inactivation of two additional surface ships and the drydocking of one inactive vessel.		2,793
13) Increase funds additional SSN mid-operating cycle acoustic trials, the installation phase of the East and West Coast Acoustic Measurement Facilities, and half a year's operating costs for USNS HAYES (TAG-195) which will be used as the East Coast radiated noise measurement platform for submarine and surface ship acoustic trials.		9,449
14) Increase for SSN inactivations supports the inactivation of 3 more SSNs with reactor compartment disposals, advance planning for an additional inactivation in FY 1991 and two additional reactor compartment and hull disposals in FY 1990.		87,745
15) Increases in Submarine Ship Systems Performance and Monitoring Support program will provide for:		3,918
1) the Performance Monitoring Program (PMP), Data Support, and the Material Condition Assessment/Improvement programs to monitor 14 additional SSN 637 and SSN 688 Class Hulls;		
2) the completion of Maintenance Planning System efforts to improve the generation of the Work Package Management Supplement (WPMS), which marries the appropriate maintenance standard to the authorized maintenance action; 3) utilization of lessons learned during the development of the ESEOC (Extended Submarine Engineered Operating Cycle) Planned Maintenance Catalog (PMC) for SSN 700 and later.		

Activity Group:
Ship Maintenance and Modernization (cont'd)

16) Funding supports the purchase of additional minor expense equipment items such as 2M workbenches, storage chests, and shelving, as well as, four additional Test Program Sets for the Support Test Equipment Engineering Program (STEEP).	751
17) Funding required for Title-K SHIPALTs for CVN-70 scheduled overhaul.	42,617
18) Increase for SHIPALTs budgeted on carriers during scheduled drydocking availabilities that cannot be accommodated during non-drydocking SRAs.	17,648
19) Expanded SHIPALT packages in FY 1990 on SSN-637 Class overhauls to include Special Hull Treatment (SHT), BQQ-5D Sonar, Sea Nymph, and TOMAHAWK installations which are required warfighting improvements.	43,353
20) SHIPALT installation during CGN-36 complex overhaul (COH) including the New Threat Upgrade (NTU) alterations.	25,355
21) Installation of SQQ-89 and Recovery Assist Securing and Traversing (RAST) systems on four DD-963 Class ships.	28,356
22) Increased Nuclear Alteration (NUCALT) requirements to support CGN-36 and CVN-70 overhauls.	24,000
23) Installation of SHIPALTs, including the Light Airborne Multi-Purpose System (LAMPS) MK-III system, on two DD-963 Class ships during scheduled overhauls.	26,469
24) Installation of Submarine Extended Operating Cycle (SEOC) Mods, Package Alterations, and Reliability and Safety related improvements to steam plants on submarines without scheduled availabilities. Work can be accomplished outside of a depot availability.	27,418

Activity Group:
Ship Maintenance and Modernization (cont'd)

-804,096

5. Program Decreases

C. Other Program Decreases in FY 1990 (-804,096)

1) Reflects reduced service craft maintenance on 4 craft in the Berthing and Messing program and no berthing and messing craft overhauls.

-6,478

2) Decrease in the Shore Intermediate

-3,393

Maintenance Activity (SIMA) upgrade program

reflects less technical, logistics and other support services required since 3 fewer SIMA upgrades are supported, fewer equipment installations will occur, and 116 fewer test package developments.

3) Two fewer SSN inactivations without reactor

-39,792

compartment disposals will occur in FY 1990.

4) Reduction in operating costs (one-half year)

-1,177

for MONOB resulting from transition to using USNS

HAYES as the East Coast acoustic measurement platform.

-906

5) Decrease reflects reduced maintenance and material documentation updates, reduced maintenance engineering life cycle support, and reduced engineering development on three ship classes as well as reduced maintenance monitoring and vibration analysis efforts on four ship classes.

-1,956

6) Decrease in funding required for Submarine Battery

Renewals due to a net reduction of one renewal between

FY 1989 and FY 1990.

-218

7) Reduction in supply support required for Readiness

Support Group (RSG) operations and reduction in

contractor support for Integrated Logistic Overhaul (ILO) efforts.

-10,934

8) Reduction in requirements due to SIMA manpower

management initiatives.

9) Identification of excess on-board inventories

-546

has reduced the requirement for materials/supplies

for daily administration and Intermediate Mainte-

nance Activity (IMA) support.

Activity Group:
Ship Maintenance and Modernization (cont'd)

-385,974

10) Decrease results from a change in the number and mix of overhauls between FY 1989 and FY 1990 as shown below:

	Change in No. Ships	Change in Dollars	
Submarines	-4	(-267,510)	
Cruisers/Destroyers/ Frigates) (Conventional)	-4	(-93,157)	
Auxiliaries	-4	(-25,307)	-5,468
11) Decrease in SHIPALTs for FF-1052 Class ships due to a reduction in the number of availabilities.			-73,241
12) Decrease of ten FFG availabilities and a reduction in the SHIPALT packages on other Cruiser/Destroyer (CRUDES) availabilities.			-12,135
13) Reduction resulting from differences in CG New Threat Upgrade (NTU) packages between CG-16 (two launcher) and CG-26 (one launcher) Class requirements.			-78,894
14) Decrease results from two fewer DDG-993 Class and one CG-16 Class overhauls which include NTU SHIPALTs.			-24,267
15) Submarine SHIPALT decrease due to reduction of an SSN-688 Class overhaul.			-73,955
16) Decrease of one submarine DMP and reduced SHIPALT packages on the remaining DMP's due to previous installation of such alterations as BQQ-5D, SHT and Thin Line Towed Array.			-25,272
17) Decrease of eleven Amphibious Ship availabilities with a decrease in the SHIPALT packages for the remaining availabilities.			-37,571
18) Decrease of two Service ship overhauls with a decrease in the SHIPALT packages for the remaining Service Ship availabilities.			-13,300
19) Decreased NUCALT requirements for submarines due to fewer scheduled availabilities.			

Activity Group:
Ship Maintenance and Modernization (cont'd)

20) Decrease in funding for Depot Modernization Periods -8,619 (DMPs) based on a reduction of one DMP from FY 1989 to FY 1990, partially, offset by a change in the mix of submarines undergoing DMPs.

\$4,850,296

6. FY 1990 President's Budget Request

160,235

7. Pricing Adjustments

A. Annualization of FY 1990 Direct Pay Raises

1) Classified (167)

2) Wage Board 114

3) Foreign National Direct Hires 41

B. FY 1991 Direct Pay Raises 12

1) Classified (512)

2) Wage Board 446

3) Foreign National Direct Hires 43

C. Stock Fund 23

1) Fuel (2,522)

2) Non-Fuel 4

D. Industrial Fund Rates 2,518

E. Other Pricing Adjustments (100,132)

(56,902)

819,292

8. Program Increases

A. Other Program Growth in FY 1991

1) Increase for SSN inactivations supports one

more inactivation with reactor compartment

disposal, and two additional hull disposals.

2) Increase in the SSN Acoustic Trials program

reflects a full year's operation of USNS HAYES

(TAG-195) vice a half-year in FY 1990 and supports

four additional mid-operating cycle trials.

3) Increase provides for the inactivation of

six additional surface ships. Increase

partially offset by a change in the mix of ships.

(819,292)

45,775

2,401

499

Activity Group:
Ship Maintenance and Modernization (cont'd)

4) The Performance Monitoring Program (PMP), Data Support, and the Material Condition Assessment/Improvement programs will monitor 4 additional SSN 637 and SSN 688 Class Hulls in FY 1991. In the ESEOC program, new advance planning engineering and Integrated Logistics Support efforts are required for FY 1993 Depot Modernization Periods of SSN 719 and SSN 720 submarines with Vertical Launch Systems.	1,357
5) SIMA Upgrade increase is required to support 1,100 additional manhours to prepare engineering material for upgrades associated with MILCON projects. In addition, funding is required to install additional plant and minor expense equipment.	2,075
6) Increase provides for an additional civilian workday in FY 1991. and average grade and salary adjustments at PERAs and SUBMEPP.	70
7) Increase reflects continued data processing initiatives, increased Maintenance Engineering and other field activity support at SUBMEPP.	247
8) Increase in the Surface Ship Maintenance and Performance Monitoring Program provides for increased maintenance monitoring efforts for four ship classes and an increase in support of PHM class unique equipment.	324
9) Increase in personnel benefits resulting from FERS participation.	34
10) Increase supports refueling overhaul of NR-1 in FY 1991. NR-1 is a one-of-a-kind, nuclear powered deep-diving research submarine.	49,383
11) Increase in supplies and equipment repair and replacement required to sustain SIMA maintenance workload requirements.	940

Activity Group:
Ship Maintenance and Modernization (cont'd)

12) Increase results from a change in the number and mix of ships being overhauled between FY 1990 and FY 1991 as shown below:

538,166

	Change in No. Ships	Change in Dollars
Carriers (USS ENTERPRISE)	0	(464,700)
Amphibious Warfare	+1	(67,860)
Cruisers/Destroyers/		
Frigates (CRUDES)	-1	(25,069)
AERP/PERA		(200)

The decrease of one CRUDES overhaul is offset by a change in the mix of overhauls for these ships.

1,776

- 13) Increase in funding for Submarine Battery Renewals due to an increase in requirements from 14 to 16 renewals between FY 1990 and FY 1991.
- 14) Increase funds one additional floating drydock overhaul in FY 1991 compared with FY 1990.
- 15) Installation of BQQ-5D Sonar and Thin Line Towed Array on an additional SSN-688 Class submarine during DMP.
- 16) Increase supports installation of K-ALTs during refueling overhaul of CVN-65.
- 17) Increase provides for installation of NUCALTs to support CVN-65 refueling overhaul.
- 18) Installation of warfighting improvement alterations (Outboard II, SLQ-19, Armor) and other Title-K SHIPALTs on Cruisers/destroyers (CRUDES).
- 19) Increase provides for USS BELLEAU WOOD (LHA-3) COH which includes SPN-43B Radar, Anti-Ship Missile Defense (ASMD) and Aircraft Intermediate Maintenance Department (AIMD) installations.
- 20) Installation of additional K-ALTs and NUCALTs on CGNs undergoing NTU upgrades.

22,830

8,600

38,637

51,507

22,496

17,532

14,643

Activity Group:
Ship Maintenance and Modernization (cont'd)

-836,031

(-994)
-494

-500

(-835,037)
-288,683

9. Program Decreases

- A. Annualization of FY 1990 Decreases
- 1) Annualization of transfer of resources for design engineering efforts performed at the SUPSHIPS activities to Budget Activity 7 - Central Supply and Maintenance. Adjustment reflects the transfer of resources from reimbursable customers to SUPSHIP direct mission funding. Design engineering is a direct mission responsibility of the SUPSHIPS and should not be funded on a reimbursable basis.
 - 2) Annualization of transfer to Budget Activity 7 for the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of compromise to the acquisition procurement process.

B. Other Program Decreases

- 1) Decrease results from a change in the number and mix of ships being overhauled between FY 1990 and FY 1991 as shown below:

	Change in No. Ships	Change in Dollars
Submarines	-1	(-168,953)
Auxiliaries	-2	(-13,800)
Advance Funding		(-105,930)
2) Reduction in Service Craft and Deep Submergence vehicle overhaul/repair funding due to a decrease in the number of overhauls and a change in the mix between FY 1990 and FY 1991.		-5,487
3) Reduction in Phased Maintenance Availabilities (PMAs) due to a reduction of 16 PMAs between FY 1990 and FY 1991.		-143,335
4) Reduction in funding for habitability improvements due to the completion of major habitability repairs in FY 1990.		-10,442

Activity Group:
Ship Maintenance and Modernization (cont'd)

5) Reduction in Other Planned RA/TA due, primarily, to completion of major RAVs in FY 1990.	-9,698
6) Reduction in IDD support due to a decrease of one Interim Dry Docking (IDD) between FY 1990 and FY 1991.	-2,074
7) Reduction in funding required for SRAs due to a decrease of ten SRAs from FY 1990 to FY 1991.	-145,668
8) Reduced IMA workload requirements based on ship mix changes.	-10,905
9) Increase in SIMA manpower reduces requirement for more costly Commercial Industrial Services (CIS).	-3,622
10) Identification of excess on-board inventories has reduced the requirement for materials/supplies for daily admin and IMA support.	-143
11) Reduction is due to one less SSN inactivation without reactor compartment disposal and fewer inactivation advance planning requirements.	-37,230
12) Decrease reflects reduced overhead support at PERA CV, and reduced ADP systems support, travel and supply support at the PERAs and SUBMEPP.	-314
13) Reduction results from a) the transition of the Maintenance Management System of the Surface Ship System Performance Monitoring Support program from the development and implementation phase to program maintenance and b) fewer feedback requirements resulting from the decrease in scheduled maintenance.	-308
14) Decrease in the SSN Acoustic Trials program due to the completion of the transition to USNS HAYES vice MONOB as an acoustical trial measuring platform. Also, both the East and West Coast Acoustic Measurement Facilities transition to operation and maintenance vice installation efforts.	-3,044
15) Decrease in the SIMA Upgrade Program resulting from one less site supported.	-1,006
16) Decreased SHIPALT installation requirements on newly delivered SSN-688 Class submarines.	-22,464

Activity Group:
Ship Maintenance and Modernization (cont'd)

17) Reduced submarine overhauls and associated K-ALT installation work packages.	-30,716
18) Decrease in SHIPALTs for Carriers due to change in mix of availabilities from DSPAs to SRAs.	-19,833
19) Reduction in installation requirements for SOQ-69, RAST and LAMPS systems on DD-963 Class availabilities.	-24,192
20) Decreased submarine separate funding requirements including SEOC Mod package alterations and Steam Plant Improvement alterations.	-43,946
21) Reduction in SHIPALT requirements for service and amphibious availabilities, including fewer ASD installations.	-15,531
22) Reduction in SHIPALT requirements for CRUDES availabilities.	-16,396

\$4,993,792

11. FY 1991 President's Budget Request

Activity Group:
Ship Maintenance and Modernization (cont'd)

III. Performance Criteria

A. Ship Overhauls: The following table depicts the regular overhaul program profile for fiscal years 1988 through 1991. Although the overhaul is costed for the full term including advance preparation, only the portion applicable to the fiscal year appropriation appears with the ship in the induction year. Advance preparation costs are reflected in the appropriate OEMN expense fiscal year.

Type of Ship	FY 1988		FY 1989		FY 1990		FY 1991	
	# Ships	\$M	# Ships	\$M	# Ships	\$M	# Ships	\$M
Carriers	1	117.0	0	0.0	1	278.2	1	724.5
Submarines (Nuclear)	6	588.6	7	648.4	3	433.4	2	264.4
Cruiser/Destroyer/ Frigate	11	264.8	12	256.7	9	358.4	8	421.0
Amphibious	3	51.8	0	0.0	0	0.0	1	67.8
Auxiliary/Support	1	4.0	6	37.8	2	13.8	0	0.0
Total Inductions	22	1,026.2	25	942.9	15	1,083.8	12	1,477.7
Advance Funding AERP/PERA *		86.3		81.6		154.6		53.0
		16.1		8.9		11.2		11.4
Total Program		1,128.6		1,033.4		1,249.6		1,542.1

*Advance Equipment Repair Program/ Planning, Engineering Repair and Alteration represents preoverhaul effort/repairs accomplished outside the shipyard facilities and directly funded by the customer.

Note: May not add due to rounding.

Activity Group:
Ship Maintenance and Modernization (cont'd)

B. Restricted and Technical Availability. The resources required for voyage repairs are based on historical experience for each ship type and number of ship operating months. Resources for planned availabilities are based on the number of scheduled availabilities in each category. A summary of voyage repairs and planned availabilities follows:

Type of Repair	FY 1988			FY 1989			FY 1990			FY 1991		
	# Ships	\$M		# Ships	\$M		# Ships	\$M		# Ships	\$M	
Voyage (Op Months)	4,514	311.7		4,500	342.2		4,662	351.9		4,695	341.9	
Battery Renewals	14	6.1		15	8.5		14	7.4		16	9.3	
Interim Drydocking	3	2.5		2	1.5		1	2.0				
Sel. Rest. Avail.	84	582.2		79	711.6		83	795.3		73	689.7	
Phased Maint. Avail.	64	383.5		62	375.0		59	459.4		43	337.1	
Svc Craft & Boats	24	24.1		32	44.0		33	65.7		27	128.2	
Deep Submerg. Vessels	6	7.6		6	10.0		6	7.4		6	7.7	
Habitability	91	25.4		70	26.7		98	35.8		82	27.0	
Miscellaneous RAVs	527	66.7		615	100.3		410	115.0		304	108.7	
DMP		7.6		5	160.3		4	157.2		4	171.3	
PSA	10	1.5		5	1.9		16	5.4		12	6.1	
Total Program		1,418.9			1,782.0			2,092.5			1,827.0	

Note: May not add due to rounding.

Activity Group:
Ship Maintenance and Modernization (cont'd)

C. Fleet Modernization Program (\$M)

<u>FY 1988</u>	<u>IMPOSED REQMTS.</u>	<u>MISSION</u>	<u>C3</u>	<u>HM&E</u>	<u>SAFE ENAV</u>	<u>HAB F PERS</u>	<u>PROGRAM SUPPORT</u>	<u>TOTAL \$</u>
CARRIERS	1.9	73.2	13.0	23.6	17.7	5.9	39.9	175.3
SUBMARINES	.0	54.3	2.0	46.9	1.9	.0	43.1	148.3
SUB SUPPORT SHIPS	.1	0.9	.3	.7	.1	.0	0.4	2.5
CRUISE-MINE WARFARE	4.7	113.2	12.4	32.6	13.1	11.2	71.1	258.3
SERVICE SHIPS	1.2	21.3	2.6	3.9	6.2	3.8	19.6	58.8
AMPHIBIOUS SHIPS	3.1	11.3	10.8	2.8	21.0	.9	24.0	73.7
FLOATING DRYDOCKS	.0	.0	.0	.0	.0	.0	.0	.0
SEPARATE FUNDING	.3	160.3	20.3	14.8	.9	.4	7.8	204.8
NET ADVANCE PLANNING								21.2
TOTAL FOR BA-2	11.3	434.7	61.5	125.3	60.9	22.1	205.9	942.5

Note: May not add due to rounding.

Activity Group:
Ship Maintenance and Modernization (cont'd)

FY 1989	IMPOSED REQTS.	MISSION	C3	HM&E	SAFE & NAV	HAB & PERS	PROGRAM SUPPORT	TOTAL \$M
CARRIERS	.0	10.2	6.2	1.7	9.9	.7	26.1	54.7
SUBMARINES	.0	152.9	6.5	29.8	4.2	.0	38.0	231.5
SUB SUPPT SHIPS	.0	.7	1.7	.3	.0	.0	.5	3.2
CRUDES-MINE WARFARE	5.9	191.0	6.1	27.4	41.9	3.2	74.2	349.5
SERVICE SHIPS	2.1	19.4	1.2	6.1	29.8	.0	21.8	80.4
AMPHIBIOUS SHIPS	3.3	23.5	6.3	1.3	24.0	.0	20.5	78.9
FLOATING DRYDOCKS	.0	.0	.0	.0	.0	.0	.0	.0
SEPARATE FUNDING	1.2	198.4	24.6	26.6	2.4	.1	15.5	268.8
NET ADVANCE PLANNING								3.1
TOTAL FOR BA-2	12.5	596.3	52.5	93.1	112.1	3.9	196.6	1,070.1

Note: May not add due to rounding.

Activity Group:
Ship Maintenance and Modernization (cont'd)

FY 1990	IMPOSED REQMTS.	MISSION	C3	HMEE	SAFE & NAV	HAB & PERS	PROGRAM SUPPORT	TOTAL \$
CARRIERS	.0	36.5	30.9	4.4	8.4	.2	28.1	108.4
SUBMARINES	.0	126.7	6.9	27.0	2.9	.0	38.6	202.1
SUB SUPPORT SHIPS	.1	1.2	.5	1.9	.0	.0	.9	4.6
CRUDES-MINE WARFARE	5.0	190.4	4.5	10.8	17.3	4.2	71.8	304.0
SERVICE SHIPS	3.7	10.8	.6	3.2	12.2	.0	14.4	44.9
AMPHIBIOUS SHIPS	5.8	11.7	1.4	1.1	18.4	.0	17.5	55.9
FLOATING DRYDOCKS	.1	.8	.0	.0	.0	.0	.0	.9
SEPARATE FUNDING	.0	215.7	15.6	43.8	3.2	.0	14.0	292.4
Y T ADVANCE PLANNING								.0
TOTAL FOR BA-2	14.7	594.0	60.4	92.1	62.4	4.3	165.3	1,013.2

Note: May not add due to rounding.

Activity Group:
Ship Maintenance and Modernization (cont'd)

FY 1991	IMPOSED REQMTS.	MISSION	C3	HM&E	SAFE & NAV	HAB & PERS	PROGRAM SUPPORT	TOTAL \$
CARRIERS	.0	20.2	1.4	73.4	11.3	.0	26.3	132.5
SUBMARINES	.2	93.2	3.7	24.2	2.9	.0	32.0	156.2
SUB SUPPORT SHIPS	.0	.0	.7	.7	.1	.0	.4	2.0
CRUDES-MINE WARFARE	5.2	194.8	3.9	4.0	21.2	2.9	73.7	305.7
SERVICE SHIPS	6.1	7.6	.0	1.2	9.6	.0	10.0	34.4
AMPHIBIOUS SHIPS	5.3	26.1	1.6	2.4	16.4	.0	22.8	74.6
FLOATING DRYDOCKS	.5	.0	.0	1.3	.1	.0	.0	1.9
SEPARATE FUNDING	.0	282.5	12.8	11.2	3.1	.0	10.9	320.5
NET ADVANCE PLANNING								.0
TOTAL FOR BA-2	17.3	624.4	24.1	118.3	64.7	2.9	176.1	1,027.8

Note: May not add due to rounding.

Activity Group:
Ship Maintenance and Modernization (cont'd)

D. Berthing and Messing

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Total # of crewmen requiring berthing and messing	37,418	38,915	38,109	38,628
Total # of ships supported	139	145	141	143

NOTE: Included in the totals of crewman and ships supported is a carryover from ongoing availabilities started in previous fiscal years.

E. Outfitting (\$000)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
1. Major Equipment Spares	136,265	0	0	0
2. COSAL Update Costs	32,472	0	0	0
3. Special Programs	20,085	0	0	0
4. Equipage Programs	75,083	0	0	0
5. Between Overhaul Changes	35,358	0	0	0
Subtotal	<u>299,263</u>	<u>0</u>	<u>0</u>	<u>0</u>
6. Integrated Logistics Overhaul	7,706	8,703	8,818	8,856
Total	306,969	8,703	8,818	8,856

F. Intermediate Maintenance provides for repair parts and materials for intermediate level support of the active forces including self-support for the tenders. The cost associated with the intermediate maintenance effort is identified to productive manhours in the repair departments and a cost per material year. The commercial industrial (CIS) program identifies the workyears of effort purchased and the total cost.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Repair Department Support				
Productive Manyears	7,621	8,295	8,729	8,461
Total material costs (\$000)	205,804	187,260	195,916	202,877
Contract Support				
Manyears	286	607	507	301
Total Costs (\$000)	24,252	55,199	47,890	29,770
SIMA Admin costs (\$000)	28,129	26,541	28,405	30,658

Activity Group:
Ship Maintenance and Modernization (cont'd)

G. Inactivation of Ships (\$000)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Submarine Inactivations				
(# of Advance Plan Efforts)	4	5	6	2
(# of Inactivations)	1	3	1	0
(# of Reactor Disposals)	1	0	2	2
(# of Inacts with Reactor Disposals)	1	0	3	4
(# of Hull Disposals)	0	0	2	4

H. Maintenance Improvement Support

SSN Performance Monitoring and Support Program permits placing submarines on an extended operating cycle without endangering safety of operations. The measure of achievement is the number of ships supported and the ability to place additional ships on the program as they fit the criteria.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Engineering Technical and Management Support *	892	965	1,007	1,047
Maintenance Planning *	892	965	1,007	1,047
Submarine System Performance Data Support and Material Condition Assessment **	69	70	84	88
ESEOC planning (\$000)	5,562	4,734	6,114	6,632

* Workload indicators are ship operating months supported.

** Workload indicators are number of SSN 637 and SSN 688 Class hulls monitored.

Surface Ship Maintenance and Performance Monitoring System (SMPMS). This program supports placing and maintaining various designated surface ship classes on engineered maintenance strategies, and devising and implementing engineering, technical, and logistical support approaches to extend the ship operating cycle under these maintenance strategies to the maximum extent practical without degrading material readiness. These maintenance strategies result in fewer overhauls or the elimination

Activity Group:
Ship Maintenance and Modernization (cont'd)

of overhauls and an increase in ship operational time. The three maintenance strategies are Engineered Operating Cycle (extended regular overhaul intervals with condition-directed maintenance), the Phased Maintenance Program (elimination of regular overhaul with condition-directed maintenance and use of Port Engineers), and LO-MIX progressive overhaul (elimination of regular overhaul with time-directed maintenance).

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Maintenance Improvement Prog. (ship classes)	7	8	8	8
Sys/Equip. Maint. Monitoring (ship classes)	4	4	4	4
Engineered Operating Cycle (ship classes)	12	12	9	9
ASMS/PSMS/Phased Maint. Program (ship classes)	23	22	22	22
LO-MIX Progressive Overhaul (# of ship classes)	4	4	4	4

I. Planning and Engineering for Repair and Alterations (PERA) for Submarines and Surface Ships.

The three PERA detachments for surface ships and the Submarine Maintenance, Engineering, Planning and Procurement (SUBMEPP) detachment for submarines perform a myriad of engineering technical, and logistic tasks. These efforts transferred from PBD 022 in FY 1990.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
TOTAL PERA's and SUBMEPP	*	*	19,130	19,649

1) Submarine Maintenance Engineering, Planning, and Procurement (SUBMEPP).

SUBMEPP is a management engineering organization, under the cognizance of the Naval Sea Systems Command, whose objective is that of providing intensive management for the accomplishment of effective, efficient, orderly and timely ship overhauls. This is accomplished by the efficient use of management and engineering resources on high priority overhaul improvement programs to develop and use standard documentation methods and procedures throughout NAVSEA and its field activities. SUBMEPP receives reimbursable funding from the Type Commanders and other NAVSEA programs such as Fleet Modernization Program, Submarine Extended Operating Cycle, Trident, Advanced Equipment Repair Program (OPN effort), and Extended Submarine Engineered Operating Cycle (ESEC).

Activity Group:
Ship Maintenance and Modernization (cont'd)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
TOTAL FUNDING SUBMEPP	*	*	8,604	9,036

2) Planning and Engineering for Repair and Alterations (PERA) for Surface Ships

There are PERA detachments for cruisers/destroyers (CRUDES), carriers (CV), combat support ships (CSS), and amphibious and service craft (ASC). The primary functions of PERAs are management support for availabilities, life cycle maintenance management and class maintenance impacts due to alterations, repair material management, and special projects for ship logistics managers. The dollars shown below fund only the overhead expenses at each facility.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
PERA CRUDES	*	*	4,650	4,640
PERA CSS/ASC	*	*	3,145	3,247
PERA CV	*	*	2,731	2,726

* Prior to FY 1990, effort funded in BA-7 - Other Logistics Support.

Activity Group:
Ship Maintenance and Modernization (cont'd)

IV. Personnel Summary:

End Strength (E/S)

A. Military
Officer
Enlisted

B. Civilian

USDH
FNDH

<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
8,325	8,897	9,428	10,015
226	229	229	238
8,099	8,668	9,199	9,777
540	627	838	838
467	547	758	758
73	80	80	80

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Combat Support Forces
Budget Activity: 2 - General Purpose Forces

I. Description of Operations Financed.

The operations of Navy Mobile Construction Battalions (NMCB's) and Special Combat Support Forces, together with repair of combatant craft, are financed in this program.

NMCB's - Funding requested provides for training, operational support, and camp maintenance for eight construction battalions, two construction regiments, two underwater construction teams, two fleet battalion commanders, and two civic action teams. Travel is necessary to carry out NMCB deployment schedules and construction tasks and is usually arranged via Military Air Command (MAC) special aircraft charter.

Special Combat Support - Funding requested provides for trained special combat forces to deploy either aboard ship or to a forward base to conduct conventional warfare operations. Component commands that are funded under this program include Explosive Ordnance Disposal Groups, an airborne mine countermeasures squadron, the Naval Security Coordination Team (Anti-terrorist), the Naval Beach Group component commands (Beach Master Unit, Mobile Technical Unit, Amphibious Construction Battalion, Assault Craft Unit, and Naval Cargo Handling Battalion), and Landing Craft Air Cushion (LCAC) units. These units provide a wide range of highly important and specialized capabilities. Among other items, expenses include civilian personnel salaries, repair parts, equipment, fuel, contract services, facilities maintenance, and ADP support. Navy Seal Teams are no longer funded under this program. Beginning in FY 1988, funding for Navy Seal Teams has been transferred from Budget Activity 2 to Budget Activity 11. Resource reductions that are associated with this transfer of the Seal Teams to BA 11 are reflected in the financial summary that is provided below.

Craft Repair - Funds requested finance repairs to combatant craft consisting of various landing, mine countermeasures, and other special purpose craft. Repairs include organizational, intermediate, and depot level maintenance. As a general policy, craft maintenance is performed at the lowest level of maintenance practical in order to provide maximum availability of craft.

II. Financial Summary (Dollars in Thousands)A. Sub-Activity Group Breakout.

	FY 1988 Actual	FY 1989 Amended Budget Request	Appro- piation	Current Estimate	FY 1990 Budget Request	FY 1991 Budget Request
SEABEE OPERATIONS	36,457	36,153	36,726	36,771	34,512	33,091
COMBAT SUPPORT FORCES	47,159	46,499	46,665	49,659	51,274	55,268
COMBAT CRAFT REPAIR	9,671	11,648	11,648	11,937	6,353	7,951
TOTAL ACTIVITY GROUP	93,287	94,300	95,039	98,367	92,139	96,310

B. Reconciliation of Increases and Decreases:

	Amount
1. FY 1989 Current Estimate	98,367
2. Pricing Adjustments:	900
A. Annualization of FY 1989 Direct Pay Raise	(53)
1) Classified	50
2) Wage Grade	3
B. FY 1990 Direct Pay Raise	(64)
1) Classified	59
2) Wage Grade	4
3) Foreign National Direct Pay Adjustment	1
C. Stock Fund	(-600)
1) Fuel	-545
2) Non fuel	-55
D. Industrial Fund Rates	111
E. Foreign National Indirect Hire	(14)
F. Foreign Currency	(43)
G. Other Pricing Adjustments	(1,215)
3. Program Increases:	2,936
A. Other Program Growth in FY 1990	
1. Increase of supplies and equipment for Navy Security Coordination Team (NSCT).	24

Activity Group: Combat Support Forces (cont'd)

2.	Funds required to support seven new Landing Craft Air Cushion (LCAC) vehicles, support maintenance, fuel and spare parts for craft operation.	2,592	
3.	Increase in CIVPERS benefits due to higher FERS participation.	18	
4.	Increase in supplies, materials and transportation requirements to support the accomplishment of various construction projects by mainbody sites with details located through the Pacific.	304	
4.	Program Decreases:		-10,066
A.	Other Program Decreases in FY 1990	-33	
1)	Reduction in separation liability costs for Foreign National Indirect Labor.		
2)	Reduction in materials and supplies due to decreasing procurement of new equipment for Special Combat Support Forces units and reduced preventative maintenance on various equipment	-1,834	
3)	Reduced supplies and transportation of equipment based on projected Construction Battalion deployment schedules.	-401	
4)	Reduced support and overhead required due to consolidation and decommissioning of the Ninth Construction Battalion.	-2,476	
5)	Reduction due to decrease in the number and mix of craft overhauls.	-5,322	
5.	FY 1990 President's Budget Request		92,139
6.	Pricing Adjustments:		1,995
A.	Annualization of FY 1990 Direct Pay Raise	(34)	
1)	Classified	29	
2)	Wage grade	5	
B.	FY 1991 Direct Pay Raise	(109)	
1)	Classified	104	
2)	Wage Grade	4	
3)	Foreign National Direct Hire Pay Adjustment	1	
C.	Stock Fund	(501)	
1)	Fuel	202	
2)	Non fuel	421	
D.	Industrial Fund Rates	(421)	
E.	Foreign National Indirect Hire	(5)	
F.	Other Pricing Adjustments	(925)	

Activity Group: Combat Support Forces (cont'd)

5,299

(16)

16

(5,283)

1,306

3,956

7. Program Increases:

A. One time FY 1990 Costs

1) One additional Civilian personnel Workday in FY 1991.

B. Other Program Growth in FY 1991

1) Increase based on projected cyclic aircraft maintenance.

1) Funds required to support 12 new Landing Craft Air Cushion

(LCAC) vehicles requiring an increase in spares, repair parts

and fuel consumption.

2) Increase in CIVVERS benefits due to FERS participation.

21

-3,123

8. Program Decreases:

A. Other Program Decreases in FY 1991

1) Reduction in fuel consumption by Combat Support Units due to a

more conscience effort to conserve.

2) Reduction in separation liability costs for Foreign National

Indirect Labor.

3) Reduction in transportation of Construction Battalions

costs, and reduction in number of CB's deployed.

4) Reduction in operations and transportation costs in support of

Explosive Ordnance Disposal Units and Mine Countermeasures Forces.

5) Decrease in spare parts, contract services, facilities

maintenance, and ADP support associated with Combat Support

Units.

96,310

9. FY 1991 President's Budget Request

III. Performance Criteria.

A. Construction Battalions

Deployment

Sites

Rota

Roosevelt Roads

Okinawa

Guam

Subic Bay

Sigonella

Deploy. for Training

Total

	FY 1988	FY 1989	FY 1990	FY 1991
Planes Miles	Planes Miles	Planes Miles	Planes Miles	Planes Miles
16 155,957	21 166,740	7 94,178	21 168,406	
16 74,103	7 32,986	21 81,242	14 67,081	
14 138,203	10 115,226	18 216,231	21 213,182	
9 73,004	21 206,593	17 202,956	11 121,774	
0 0	2 18,084	4 48,362	0 0	
7 90,594	16 141,724	17 167,131	7 90,594	
14 48,598	28 94,076	32 88,136	32 97,232	
76 580,459	105 775,329	116 898,236	106 758,269	

Activity Group: Combat Support Forces (cont'd)

	FY 1988	FY 1989	FY 1990	FY 1991
B. <u>Combat Support Forces</u>				
<u>Combat Support Forces Units</u>				
Service Craft Boats	46	46	46	46
Landing Craft Air Cushion	348	377	377	382
Explosive Ord. Disposal Team	13	17	24	36
(Deployments)	66	68	68	68
C. <u>Combatant Craft Repair (\$/1 of oh)</u>				
<u>Combatant Craft Repair (\$/1 of oh)</u>				
PB Patrol Boat	2,560	3,568	1,875	3,120
LCU Landing Craft Utility	741	891	2	1
MSB Minesweeping Boat	1,911	220	7	6
YRST Yard Repair Salvage Tender	1,463	3,285	2,725	2,502
YRST Yard Covered Lighter	783	1,760	1,125	257
LCM Land Craft Mechanized				1
LCM/XB Land Craft Mechanized/Workboats				1
SWCL Spec. Warfare Craft Lgt		300	390	358
UB Utility Boat		375	1	890
SLWT Side Loadable Warping Tug		175	238	275
LCOR Land Craft Vehicle Pers.	36	540	1	360
PE Personnel Boat	2,127	223	0	
WB Workboat				
PATA	9,671	11,937	6,353	7,951
TOTAL \$	19	29	16	15

iv. Personnel Summary.

End Strength E/S

A. Military
 Officer
 Enlisted

B. Civilian
 USOH
 FNDH
 FNTH

FY 1988 FY 1989 FY 1990 FY 1991

10,647	11,033	11,250	11,386
671	745	754	757
9,976	10,288	10,496	10,629
185	196	195	195
178	190	189	189
3	2	2	2
4	4	4	4

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Fleet Operations Support
Budget Activity: 2 - General Forces

I. Description of Operations Financed.

The funds requested support the following functions in support of fleet operations:

- a. Combat Systems Readiness - Includes expenses for personnel based at selected Naval Security Group sites to install, maintain and operate special cryptologic equipment aboard selected combatants. Funds also provide for testing weapon systems operations and readiness at the Atlantic Underwater Test and Evaluation Center, and various Pacific fleet ranges.
- b. Fleet Temporary Additional Duty (TAD) - Includes centrally managed travel required for operational training, administrative travel for ship to shore assignments and hospitalization or other emergencies.
- c. Anti-Submarine Warfare Operations Centers (ASWOC) - Includes expenses for fifteen operational ASWOC installations located world wide in support of fleet operations, two abbreviated systems, located at North Island and Cecil Field (in support of the S-3A), a training site at Dam Neck, and a prototype/maintenance support site at St. Indigos. These commands meet the tactical support requirements of the P-3C long range air ASW weapon system and provide terminals for the ASW area commanders in the overall Navy Command and Control System. Funds requested finance operational maintenance; installation and checkout of hardware change kits; integrated logistics support; life cycle support of operational and system test software to respectively control mission aspects and detect and isolate system malfunctions; implementation of system software reliability and maintainability improvements; and software modifications to maintain compatibility with airborne systems changes and other systems.
- d. Undersea Surveillance (Fleets) - Includes expenses for performing oceanographic observations in selected areas in order to provide the U.S. Navy with more extensive information on oceanographic conditions and for training of personnel employed in observing and analyzing oceanographic conditions. Raw data is collected by naval facilities and then coordinated, analyzed, and evaluated by the Oceanographic Systems Commanders and certain NAVFACs prior to dissemination to fleet users and compilation for statistical studies. Operating expenses include civilian personnel, contractual services for repair, data processing, training, supplies, and operation of TAGOS ships.

Activity Group: Fleet Operations Support (cont'd)

Undersea Surveillance (CONSPAWARSYSOM) - This program transferred from budget activity 7 in FY 1989.

Sound Surveillance System (SOSUS) provides for the collection and processing of undersea acoustic data. SOSUS consist of cables connected to shore sites and shore processing equipment.

This program maintains existing SOSUS against cable breaks and equipment breakdowns and is improved through backfits to shore facilities and installations at new shore facilities. A significant inventory of expandable cable repair material is required.

Maintenance of existing systems is accomplished by three cable ships required to provide continuous cable guard and repair services in the Atlantic and Pacific. In addition, a cable transporter and survey ship support the program. Deployments also involve extensive oceanographic, hydrographic and acoustic surveys which pave the way for cable and array implantment.

The USN maintenance of SOSUS shore electronic systems hardware is augmented by American Telephone and Telegraph (ATT) Resident Engineer Support (One of two engineers per site), configuration control support and Naval Electronic Systems Engineering Center maintenance of selected hardware, including maintenance of shipyard periods, shore and cable inspection/repair and refurbishment of shore electronic hardware.

Surveillance Towed Array Sensor System (SURTASS) provides for collection and processing of undersea acoustic data. It employs a passive hydrophone array towed by a dedicated surface ship, designated TAGOS, for data collection. A satellite relay is used to transmit acoustic data to a shore facility for processing and display.

This program provides for operation and support of SURTASS systems (not including operation and maintenance of the TAGOS ships, which is a fleet responsibility). There is a large base of fixed costs which are not dependent on the number of ships operating during a given year, including computer software maintenance, engineering support, training facility operations, and minimum staffing at shore logistics support facilities. There are also costs which are related to ship operations but are incurred in advance of ship delivery, such as technician salaries during training. Other costs which are ship operations related vary not in a direct, linear way, but rather in a step function. This includes field support teams and staffing at array maintenance and logistics support facilities. Program costs which are directly dependent on the number of ship operating months include the salaries of contractor technicians who operate and maintain SURTASS equipment aboard TAGOS ships, replenishment and consumable items subsistence of shipyard technicians, engineering support of onboard equipment and EMI surveys.

Activity Group: Fleet Operations Support (cont'd)

f. Fleet Electronic Command and Control Systems - The Fleet Electronic Command and Control Systems Program funds a variety of subsystems; including expenses for hardware and software maintenance, site surveys, technical support services, and documentation for the Navy Command and Control Systems (NCCS), the Ocean Surveillance Information System, Navy World Wide Military Command and Control System (N4W4CCS) Software Standardization, Tactical Flag Command Centers, and Over-the-Horizon targeting. Funding also provides for the replacement of shipboard VERDIN Very Low Frequency (VLF) receivers with the Compact VLF, Software and technical support services for Link 11 in support of Command, Control and Communication mission requirements, and installation, engineering and technical services for hardware and software, refurbishment of equipment, and life-cycle support for Special Electronic Warfare and Command. In addition funds finance, Control and communications Counter-measures, the administration of communications functions including operation and maintenance of rapid communications systems, telegraph, administrative telephones and service, and the operation of message centers which provide communication interface with afloat units.

g. Ship Operation Electronic Warfare Support - Includes various equipments, devices, subsystems, and systems which will provide the capability to degrade the effectiveness of enemy weapons by performing countermeasure functions against his command, control and communications and weapons targeting systems. In addition, systems included in this program provide the capability to maintain the integrity of USN command, control, and communications networks and targeting systems.

h. Contractor Engineering Technical Services (CETS) - Contractor Engineering and Technical Support (CETS) services are provided to Fleet Type Commanders' maintenance personnel located at the organizational and intermediate levels of maintenance. CETS are used to elevate the technical skills of enlisted maintenance personnel to a point where they are capable of performing the maintenance of those weapons systems and equipment required for operational readiness. The CETS services are provided by Contractor Field Services (CFS) & Mobile Technical Unit (MTU) representatives furnished by DOD contractors. These CFS representatives provide instruction, information and training in the installation, operation and maintenance of weapons systems, equipment and components. Contractor Engineering Technical Services (CETS) are reflected in Fleet Operation Support for the first time in FY 1990. These funds were transferred from Budget Activity 7, Central Supply and Maintenance, to better align direct fleet costs.

i. Navy Engineering Technical Services Fleet Support (NETS) - Navy Engineering Technical Services (NETS) are performed by civil service personnel that are centrally managed by NAVAIR and NAVSEA. NETS are civilian and service personnel who can perform the same technical mission as the CETS; but whereas a CETS is limited to supporting his given company's weapons system/products, NETS can and do support many weapon systems and products regardless of manufacture. This provides increased flexibility by providing direct Fleet support for older systems at a significantly lower cost. Funding for Navy Engineering Technical Services (NETS) are reflected in Fleet Operation Support for the first time in FY 1990. These funds were transferred from Budget Activity 7, Central Supply and Maintenance, to better align direct fleet costs.

Activity Group: Fleet Operations Support (cont'd)

11. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	Amended	FY 1989	FY 1990	FY 1991
	Actual	Budget Request	Appropriation	Budget Request	Budget Request
COMBAT SYSTEMS READINESS	14,820	19,855	19,722	20,059	19,975
SHIP - TAD	43,837	34,331	37,204	35,637	37,213
ASWOC OPERATIONS CENTERS	15,040	13,363	13,163	13,153	20,098
UNDERSEA SURVEILLANCE	47,959	244,737	244,253	247,140	273,256
FLEET ELECTRONIC					
COMMAND & CONTROL	63,744	65,552	64,288	83,977	97,081
SHIP OPS EW SUPPORT	7,330	5,907	5,750	6,259	6,507
CETS MOTU SUPPORT	0	0	0	42,733	43,281
NETS DIRECT FLEET SUPPORT	0	0	0	34,812	36,313
TOTAL ACTIVITY GROUP D2	192,730	383,745	384,380	483,770	533,724

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate

2. Pricing Adjustments:

a. Annualization of FY 1989 Direct Pay Raise

- 1) Classified
- 2) Classified (NIF)

b. FY 1990 Direct Pay Raise

- 1) Classified
- 2) Classified (NIF)

c. Stock Fund

- 1) Fuel
- 2) Non Fuel

d. Industrial Fund

e. Foreign Currency Rate Adjustment

f. Other Pricing Adjustments

Amount

381,731

-5,409

(33)

13

20

(58)

16

42

(-291)

-152

-139

(-12,884)

(46)

(7,629)

Activity Group: Fleet Operations Support (cont'd)

76,401

3. Functional Program Transfers

- a. Transfers In: Intra-Appropriation (80,602)
 1) Realignment of Navy Engineering Technical Services (NETS) 34,867
 from Central Supply & Maintenance (BA 7) to General
 Purposes Forces (BA 2) to more appropriately reflect direct fleet
 support costs in this Activity Group.
 2) Realignment of Contractor Engineering Technical Services (CETS) 45,735
 from Central Supply & Maintenance (BA 7) to General Purpose
 Forces (BA 2) to more appropriately reflect direct fleet support
 costs in this Activity Group.
 b. Transfers Out: Intra-Appropriation (-4,201)
 1) Transfer of resources to BA 7 to reflect the conversion of -2,000
 contracted advisory and assistance services to in-house
 performance to reduce the risk of comprise to the acquisition
 procurement process.
 2) Transfer of resources to Budget Activity 2, Other Warfare -2,201
 Support for electronic Warfare Analysis and Master Plan
 consolidation under one activity group.

58,177

4. Program Increases

- a. One-Time FY 1990 Costs (6,803)
 1) Costs necessary to activate three new TAGOS ships in FY 1990 3,782
 (TAGOS 17, 18, and 19) and to complete the activation for two
 ships began in FY 1989 (TAGOS 12 and 16). 2,421
 2) Increase for the deactivation of the USNS Neptune. 600
 3) Sound Surveillance System (SOSUS) ship increase for MIZAR
 habitability upgrade. (5,855)
 b. Annualization of FY 1989 increases: 5,855
 1) Annualization of TAGOS per diem day operating cost for ships
 beginning operations in FY 1989 (+912 per diem days):
 TAGOS 11 AUDACIOUS - +356
 TAGOS 13 ADVENTUROUS - +94
 TAGOS 14 WORTHY - +188
 TAGOS 15 TITAN - +274

1-2-69

Activity Group: Fleet Operations Support (cont'd)

c. Other Program Growth in FY 1990	(45,519)
1) Increase of 999 Per Diem days for 5 new TAGOS Ship Charters beginning operations in FY 1990:	6,569
TAGOS 12 BOLD - +268 days	
TAGOS 16 CAPABLE - +352 days	
TAGOS 17 INTREPID - +212 days	
TAGOS 18 RELENTLESS - +106 days	
TAGOS 19 VICTORIOUS - +61 days	
2) Increased travel to meet mission requirements for COMUSNAVCENT oversight of Administrative Support Unit Bahrain for COMUSNAVCENT.	311
3) Realignment of centrally managed Command travel to appropriately supported program lines.	55
4) Increase required for staging of additional AN/SIQ-49 decoy systems and additional Quick reaction Capability support.	647
5) Increase required for installation of engineering changes including communications upgrades to Surveillance Towed Array Sensor System (SURTASS) ships.	456
6) Sound Surveillance System (SOSUS) increase for Classified FY 1990 Projects.	105
7) Sound Surveillance System (SOSUS) increase in communications support for Integrated Communication Systems (software maintenance and software conversions) that are being installed in the fleet.	336
8) Surveillance Towed Array Sensor System (SURTASS) increase associated with 1,911 additional days of TAGOS operations. As operations increase additional funds are required for additional ship technicians, additional manpower at Array Maintenance Facilities, increased depot maintenance, additional field support, additional engineering support of onboard equipment, and additional EMI surveys. Increases are also necessary for TAGOS 19 as she becomes operational with an upgraded display system.	6,423
9) Increase provides an Initial Electronic Warfare Reprogramable Library rapid reprogramming capability (EWRL) for fleet EW systems. Multiple systems can utilize the same data.	241
10) In-Service Engineering Agent (ISEA) direct fleet support increases for additional technical engineering, logistic assistance, hardware and software maintenance for AN/UHQ-16's.	179

Activity Group: Fleet Operations Support (cont'd)

11) Contractor Engineering Technical Services (CETS) increase in technical support for Mobile Technical Unit (MTU) on-the-job training.	8
12) Increase provides repairs for daily operations and periodic Integrated Logistic overhaul of support equipment required to collect oceanographic and acoustic data in support of Anti-Submarine Warfare target and fusion analysis.	403
13) Additional funds are required for the 2085 trainer, a multi-threat team trainer used in Anti-Submarine Warfare (ASW), Anti-Air Warfare (AAW) and Anti-Surface Warfare (ASUW) to directly interface SQS-56 sonar, 76mm gun mounts, SM1/WR missile, Close in Weapon System (CIWS), HARPOON and SIQ-32 systems.	215
14) Increase provides funding for Surface ship personnel assigned to Staten Island, NY. Facilities near new home port are not adequate to accomplish required training.	114
15) Submarine MK-48 proficiency firings at AUTECH range increase. This provides each submarine with proficiency firing training factored for failure rate and recertification for two submarines coming out of overhaul each year.	781
16) Electronic Command and Control increases reflects support required to include SRC-47 secure voice communication aboard auxiliaries, amphibious and other ships with aircraft capability	297
17) Joint Operational Tactical System (JOTS) support evaluation of real-time battle assessment and long-term planning	1,337
18) Personnel benefits associated with increasing FERS participation (LANTELT)	8
19) Increase for additional civilian personnel at Fleet Surveillance Support Command (FLTSURVSUPCOM) to support operational requirements of deploying Relocatable Over-the-Horizon Radar (ROTHR) systems	319
20) Increase for travel requirements related to the establishment of ROTHR detachments in Guam/Tinian	204
21) Increase to fully fund operational support and crew deployments for ROTHR Detachment 1 in Anchitka, AK	3,436
22) Ocean Surveillance Information System (OSIS) increase for additional cost of hardware maintenance and on site operation support; Installation and planning site preparation for 2 RIM.	3,247

Activity Group: Fleet Operations Support (cont'd)

- 23) Tactical Flag Command Center (TFCC) program increase reflects cost of hardware maintenance for twelve additional FDDS systems; requirement to maintain two software releases (870701F and 890701) with associated contractor support to the program office for configuration management control functions. 2,536
- 24) Operation Support System (OSS) increase to install equipment procured by FLTCINCS. Software (integration) modifications are required to baseline the system in order to interface with the procured equipment. Support for IIS documentation and associated management and technical services are required beginning in FY 1990. 2,851
- 25) Maritime Defense Zone (MDZ) increase is for engineering and planning for the next site installation and for hardware and software maintenance and software modification/maintenance to Command and Control Processor (C2) work station. 768
- 26) Interim Command and Control Systems (ICCS) funds will provide for installation and technical support and hardware/software support and maintenance for ICCS scheduled for installation in FY 1989 and FY 1990. Funds are also required to rework the Joint Operational Tactical System (JOTS)/ Tactical Information Management System (TIMS) equipment previously procured for LANTFLT and PACFLT as individual components in ICCS and provide support for these systems. 3,001
- 27) Relocatable Over the Horizon Radar (ROTHR); a) Increase in software support due to transition of software support from a contractor to operational level at Government facility (NESEC Portsmouth). Support includes processing of software maintenance actions, incorporating engineering software/firmware changes, and maintaining full software configuration status accounting. Navy Oceanographic Systems Center NOSC will provide transitional support of "VEX/VMS" based software. 2,221
- b) Increase in In-Service Engineering Support increase reflects transition to operational level including full Integrated Logistics Support responsibilities, configuration and ECP status accounting; system safety, reliability and maintainability; and management of field and depot maintenance 1,126
- c) Increase in on-site support to install and maintain test equipment configuration. These necessary portions of ROTHR 665

Activity Group: Fleet Operations Support (cont'd)

subsystems enable Naval Engineering Support Electronic Center Portsmouth to assume system hardware/software configuration.	438
d) Increase in technical support for deployment and training sites. Technical support increases engineering investigations of reported system problem areas, data reduction and analysis.	156
e) Increase in environmental assessments costs and design reviews attributable to increased cost of European surveys.	52
28) Vulnerability Assessment. New start of Data Link vulnerability Assessment Program which provides hardware maintenance and repairs for special test equipment.	2,658
29) Increase for staffing-up (18.2 work years) of the C2P Software Support Activity to provide capability to independently engineer and test software fixes/patches in parallel with the prime contractor; additional 5.6 workyears in configuration management to provide initial capability to maintain C2P programs and documentation and full life cycle support for C2P Basic; and in-service engineering to provide system configuration control maintenance and initial supervisor for C2P hardware.	1,277
30) Joint Tactical Information Distribution System (JTIDS) increase will provide for 6.6 additional workyears at the Software Support Activity and 7.7 additional work years for software engineering support to provide hardware and software maintenance, technical support and logistics support at NESSEC Vallejo and FCDSSA San Diego. This provides efforts to establish the JTIDS In-Service Engineering Agent (ISEA) who is required to address system hardware problems, logistics documentation of deficiencies, track operational reliability and develop corrective actions. This effort includes ship integration, installation and interface with other combat systems equipments. The FY 1990 increase reflects the transition of the JTIDS SSA and ISEA function from developmental to operational status. Full life cycle SSA/ISEA functions will begin in FY 1991.	432
31) Over the Horizon Targeting (OTH-T) increase provides 3 additional systems engineers in interoperability testing for direct support of 8 fleet exercises and 12 operational test launches and increased lead laboratory support for analysis of data recovered to identify and correct interoperability problems.	

Activity Group: Fleet Operations Support (cont'd)

32) Joint Interoperability of Tactical Command and Control Systems (JINTACCS) increase provides 7 additional work years for technical review of NATO Standardization agreements and representation of U.S. positions to NATO working groups and .5 work year to support modifications of message text format (MTF) Navy standards.	787
33) Formatted Message Origination System (FMOS) increased effort for Navy-unique software modifications of the joint CAMPS, including emergency patches in the area of communication interfaces, and Navy enhancements to improve responsiveness and utility among Navy users. Increased effort to update the FMOS JINTACCS and MRS software and assist in message generation and distribution of software and hardware.	207
34) JINTACCS Translator Unit (JTU) increased technical support for recertification of systems interfacing with JTU; compliance with new processing standards; life cycle support requirements, annual software releases to comply with USMTF standards changes and corrections or software trouble reports.	181
35) Movement Information Network (MINET). Funds USNAVEUR participation in this joint OAKUM theater logistics communication network. System allows access to integrated logistics data bases; enhances monitoring of fleet requisitions and cargo movement throughout the European theater.	472
-27,124	
5. Program Decreases	
a. One-Time FY 1989 Costs	
1) Decrease in FY 1989 Persian Gulf Operations	(-6,726)
2) Decrease in TACOS activation costs for work accomplished in FY 1989 on TAGOS 11, 12, 13, 14, 15 and 16.	-2,953 -3,773
b. Other Program Decreases in FY 1990	(-20,398)
1) Sound Surveillance System (SOSUS) decrease in FY 1990	-549
2) Classified Program (6300 Expansion).	
2) Sound Surveillance System (SOSUS) reduction in field logistics support, systems engineering, data analysis, installation maintenance, and software maintenance as operations decline.	-5,766
3) Reduction in contractor support for Radius Orange program due to management initiatives to reduce contractor advisory assistance support (KEYS).	-449

Activity Group: Fleet Operations Support (cont'd)

- 4) Reduction in software support for Mobile Systems Technical Data Facilities provided by NAVSECGRUDET Pensacola. -40
- 5) Reduced travel requirements for direct Security Group in support of the FLCINCs. -91
- 6) Reduction in training and operational travel and reduced Undersea surveillance oceanographic data collection/coordination/analysis. -361
- 7) Decrease of one less manyear of technical assistance which equates to 47 less technical assists required in direct fleet support. -50
- 8) Decreased support for fleet equipment breakdown projected in FY 1990 in Mobile Technical Units (MOTU). -36
- 9) Phase II Backfit installation requirements have been readjusted to follow on years to preclude any significant adverse impact. -225
- 10) Navy Command and Control Systems Ashore (NCCS-A) reflects reduced efforts for computer software maintenance operational support (12 workyears), and ILS (2 workyears) -2,083
- 11) Ocean Surveillance Information System (OSIS) reflects reduction to technical services associated with software development; reduction due to completion of ILS documentation related to fielding of all Phase II systems. -3,623
- 12) Reduction in site maintenance requirements associated with Anti-Submarine Warfare Operations Center (ASWOC) sites. -554
- 13) Tactical Flag Command Center (TFCC) reduction in lead lab support to program office. -2
- 14) Relocatable Over the Horizon Radar (ROTHR) reduction reflects completion of the deployment and installation of the first operational system and planning for the second system. -1,567
- 15) ROTHR transportation reduction reflects completion of air deployment of the first system to the operational site at Amchitka, Alaska. -1,099
- 16) ROTHR reduction in environmental assessment costs due to multiple operational sites planned for Guam and Alaska (some commonality applies). -56
- 17) Reduction in Telcom Ops monitoring operations, training for Electronic Counter Counter Measures (ECCM) programs and ADP operations at Charleston resulting in decrease of 5 Civilian WY's. -870

Activity Group: Fleet Operations Support (cont'd)

18)	Reduced Contractor Engineering Technical Services (CETS) for fighter, patrol and electronic warfare platforms, and reduced weapons and maintenance support reviews.	-2,972	
19)	Reduced Navy Engineering Technical Services (NETS) for attack fighter and electronic warfare.	-5	
			483,770
6.	FY 1990 President's Budget Estimate		18,472
7.	Pricing Adjustments:		
a.	Annualization of FY 1990 Direct Pay Raise	(215)	
1)	Classified	183	
2)	Classified (NIF)	32	
b.	FY 1991 Direct Pay Raise	(543)	
1)	Classified	448	
2)	Classified (NIF)	95	
c.	Stock fund	(261)	
1)	Fuel	59	
2)	Non fuel	202	
d.	Industrial Fund	(8,329)	
e.	Other Pricing Adjustments	(9,124)	
			48,737
8.	Program Increases	(1,001)	
a.	One-time costs in FY 1991:	917	
1)	SURTASS in-service engineering required to plan for industrial availabilities and overhuls for new TAGOS ship classes.	84	
2)	One additional workday of civilian employment in FY 1991.	(6,239)	
b.	Annualization of FY 1990 Increases:	399	
1)	Full workyear cost for additional personnel in FY 1990 at Fleet Surveillance Support Command.	5,840	
2)	Annualization of TAGOS per diem day operating cost for ships beginning operations in FY 1990 (+\$26 per diem days):		
	TAGOS 12 Bold - +97 days		
	TAGOS 16 Capable - +13 days		
	TAGOS 17 Intrepid - +153 days		
	TAGOS 18 Relentless - +259 days		
	TAGOS 19 Victorious - +304 days		

Activity Group: Fleet Operations Support (cont'd)

c. Other Program Growth in FY 1991		
1)	Increase of 306 Per Diem days for 2 new TAGOS Ship Charters beginning operations in FY 1991: TAGOS 20 To Be Announced - +214 days TAGOS 21 To Be Announced - +92 days	(41,497) 2,337
2)	Increase reflects staging of additional AN/SLO-49 decoy systems and additional Quick Reaction Capability support.	103
3)	Increase reflects additional Mobile Technical Units/Contractor Engineering Technical Services (MOTU/CETS) on-site contractor assistance.	9
4)	Sound Surveillance System (SOSUS) increase in FY 1991 Classified Projects.	4,026
5)	Sound Surveillance System (SOSUS) increase in installation, maintenance, system engineering, and cable inspection/repair as operations increase.	3,323
6)	Surveillance Towed Array Sensor System (SURTASS) implementation of communications upgrade (including UHF secure voice, on-board analysis capability, and mission analysis introduction to evaluate direct battle group support), and implementation of software changes for the Associated Support Mission Upgrade.	1,498
7)	Surveillance Towed Array Sensor System (SURTASS) increase associated with 1,132 additional days of TAGOS operations. As operations increase additional funds are required for additional ship technicians, additional manpower at Array Maintenance Facilities, increased depot maintenance, additional field support, additional engineering support of onboard equipment, and additional Electronic Magnetic Interference surveys.	2,935
8)	Surveillance Towed Array Sensor System (SURTASS) increase in FY 1991 Classified Projects.	1,664
9)	Increase required to provide an Electronic Warfare (EW) flagging capability for Fleet EW Systems	265
10)	Anti-Submarine Warfare Operations Center (ASWOC) increase provides for C3 upgrade which will modernize message and data processing capabilities at ASWOC sites in order to support simultaneous aircraft missions, improve interface with Navy Command and Control Systems Ashore (NCCS-A) theater data bases, improve interpretability with NATO forces and support of new aircraft capabilities. Funds also include advance	3,338

Activity Group: Fleet Operations Support (cont'd)

planning for IOC ASWOC 02 upgrade in FY 1993.		
11) Increase required for Tactical Command Systems which will provide ASWOC updates to existing baseline systems to sustain interoperability with new aircraft capabilities, replace obsolete equipment, provide on site technical support to all 20 ASWOC worldwide sites, and software updates between ASWOC and P-3, S-3A and NATO Patrol Aircraft.	3,579	
12) Contractor Engineering Technical Services (CETS) increase by one Mobile Technical Unit to provide corrective maintenance in response to Casualty Reports on SPANAR systems. Additional support will increase readiness by providing additional on the job training to Fleet personnel.	112	
13) Increase in Temporary Additional Duty funding for surface ship personnel assigned to various new gulf coast homeports. Facilities near new home port are not adequate to accomplish required training.	745	
14) Increased contractor support for the Radius Orange program.	107	
15) Additional funds required for increased laboratory support in the Arctic Environment Data Collection project.	637	
16) Increase in personnel benefits associated with increasing Federal Employees Retirement System (FERS) participation.	6	
17) Command and Control Processor (C2P) increase of 6.7 work years for the Software Support Activity and efforts in software engineering support to meet full Life Cycle Support in FY 1991	511	
18) Navy Command and Control Systems Ashore (NCCS-A) reflects increased efforts for computer software maintenance (16 work years), hardware maintenance operational support (5 work years) and ILS (2 work years) to implement the planned FY 1991 Baseline Software maintenance releases which are based upon FLTICINC inputs. These efforts include, but are not limited to: software for implementing the Shore Targeting Terminal (STT)/Satellite Information Exchange (SSIXS) interface; software modification to allow two-way interface between STT and AUTODIN; software efforts to implement the NWCS interface to the I-S/A AMPE; NWSS software efforts to process JINTACCS messages without the JINTACCS Translator Unit (JTU); NWSS software modifications to allow utilization of upgrade terminals; installation of upgrade hardware at NCCS Baseline sites.	2,728	

Activity Group: Fleet Operations Support (cont'd)

19) Formatted Message Origination System (FMOS) increase for support of Navy portion of JAMPS maintenance required by JCS and distribution of semi-annual releases; and distribution of FMOS software; and message standard verification and checking.	624
20) Operation Support System (OSS) increase due to additional hardware maintenance requirements to support the newly installed hardware; additional ILS requirements and associated management services.	184
21) Slow Walker. Increase provides for upgrade of the Computer Operating System Software.	12
22) LINK II. Increase of 1 work year to provide hardware and software engineering support	87
23) Joint Tactical Information distribution System (JTILS) increase of 2.8 work years for documentation efforts to provide software engineering support and logistics support.	250
24) Over the Horizon Targeting (OTH-T) increase provides one additional systems engineer for direct support of 8 fleet exercises and 12 operational test launches and two additional man-years of effort in analysis of data recovered and integration of data into lead laboratory database.	425
25) Tactical Digital Information Exchange Subsystem (TADIX) New start for TADIX/BRAVO program which provides program management support for performing logistics support and technology sharing/utilization for interfacing with the existing TADIX program. The tactical receiver equipment (TRE) software will be maintained by the designated system software support activity. This includes trouble reports, proper documentation IAW MIL-STD 1679A, and proper configuration management of delivered operational programs. Interim Depot (NOSC) will be involved with the transition and act as hardware depot until Navy Support Data in FY 1992. Will maintain configuration management for documentation and drawings associated with ship/submarine installations/alterations as well as develop training courses.	1,801
26) Increased support for theater Navy Mobile communication Vans (AMCC Vans); chiefly repair part replacements for vans which have been in theater for approximately 3 years for deployment/redeployment to meet exercises requirements.	24

Activity Group: Fleet Operations Support (cont'd)

27) Personnel benefits associated with increasing Federal Employees Retirement System (FERS) participation.	10
28) Increase for additional civilian personnel at Fleet Surveillance Support Command (FLTSURVSUPCOM) for support of operational requirements of deploying Relocatable Over the Horizon Radar (ROTHR) systems. (+ 6 Civ E/S, + 3 Civ W/Y)	95
29) During FY 1991 operations at ROTHR Detachment 2 (Chesapeake, VA) begin, requiring increase for mission communications, systems power and contracted support for system operations and maintenance.	5,035
30) During FY 1991 operation at ROTHR Detachment 3 (GUAM/Tinian) begin, requiring increase for mission communications, systems power, Detachment OPAR/support, travel, and contracted support for system operations and maintenance.	3,379
31) During FY 1991 preparation for operations at ROTHR Detachment 4 (GUAM/Tinian) begin, with operating cost starting in the 1st quarter of FY 1992, requiring an increase for start up and check out of mission communications, systems power, Detachment Operational Target/support, travel, and contracted support for system operations and maintenance.	967
32) Increase for operationally generated, site specific changes to ROTHR system software required as new detachments are established.	680

-17,255

9. Program Decreases

a. One time FY 1990 Costs	(-6,803)
1) Decrease in TAGOS activation costs for work accomplished in FY 1990 on TAGOS 12, 16, 17, 18, and 19.	-3,782
2) Decrease for deactivation of USNS Neptune.	-2,421
3) Decrease for MIZAR habitability one time upgrade.	-630
b. Annualization of FY 1990 decreases	(-100)
1) Annualization of the Transfer of resources to BA 7 in FY 1990 to reflect the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of comprise to the acquisition procurement process.	-100

Activity Group: Fleet Operations Support (cont'd)

c. Other Program Decreases in FY 1991

1) Reduced Contractor Engineering Technical Services (ETS) for fighter, patrol and electronic warfare aircraft and reduced weapons and maintenance support reviews.	(-10,352) -758
2) Decreased Navy Engineering Technical Services support for Attack, Fighter and Electronic Warfare Aircraft.	-446
3) NCCS Ashore - Phased transition of OSGP to the Operational Support System (OSS).	-164
4) Electronic Warfare Operations Center reduction in Signal Security In Service Engineering Agent and hardware and software support for Signal Security Systems, and reduction in on-site operation support and management technical services associated with system installations.	-256
5) Decrease in requirement for MK-48 proficiency firings.	-555
6) Reduced requirements for Contractor support for Joint Operational Tactical System (JOTS).	-186
7) Decrease in spare parts support required for support equipment used to collect Anti-Submarine Warfare oceanographic and acoustic data.	-326
8) Decrease in Ship operations Electronic Warfare direct support augmentations of the FLTCINCS.	-348
9) Elimination of support for the Cryptologic Field Trainer.	-123
10) Elimination of software support for Mobile Systems Technical Data Facility provided by NAVSECGRUACT Pensacola.	-250
11) Decreased maintenance support for tactical carry-on equipment and prior year cryptologic equipment procurement.	-97
12) Decrease in spare parts support required for support equipment used to collect ASW oceanographic and acoustic data.	-155
13) Tactical Flag Command Center (TFCC) decrease reflects reduction in software support; and reduction in management support level of effort.	-170
14) Ocean Surveillance Information System (OSIS) reflects reduction of technical support associated with computer software, on-site operations support, management/technical services dealing with Integrated Logistics Support documentation, and management/technical services associated with hardware installation site preparation.	-2,885
15) Maritime Defense Zone (MDZ) site installations deferred until 1992.	-127

Activity Group: Fleet Operations Support (cont'd)

16) Interim Command and Control Systems (ICCS) reflects a reduction of three less installations in FY 1991.	-1,091
17) JINTACCS Translator Unit (JTU) decrease in requirement for software evaluation maintenance enhancement.	-66
18) ROTH. Decrease reflects completion of the deployment and installation of the Second ROTH production system.	-1,001
19) LINK II. Decrease of one work year for in service engineering efforts for reduced modifications	-169
20) Joint Interoperability of Tactical Command and Control Systems (JINTACCS) decrease of 6 work years for reduced level of effort for review of NATO Standardization Agreements and participation in NATO working groups; and reduced modifications for message text format Navy standards.	-708
21) Electronic Command and Control. Decrease reflects less support for tech manuals and test sets and less life cycle support.	-136
22) Reduction in support to field sites in Temporary Additional Duty (TAD) for fleet scheduled Telephone Monitoring advice and assistance training and briefing aids, and Signal Security afloat operations.	-95
23) ADP operations and maintenance support at NAVSECGRUACT Charleston.	-300

10. FY 1991 President's Budget Request

533,724

Activity Group: Fleet Operations Support (cont'd)

III. Performance Criteria

Combat System Readiness

HK 48 Torpedo Proficiency Firings

Crypto support

Shipborne missions

Airborne missions

Units Serviced by Test Groups

<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
649	651	677	668
165	130	125	115
1,650	1,575	1,500	1,350
1,350	1,150	1,100	950
763,980	737,843	728,297	732,673

Ship - Temporary Additional Duty (TAD)

Per Diem Days

Anti-Submarine Warfare Operations Centers (ASWOC)

Number supported

Undersea Surveillance - TAGOS Operations (Fleets)
number ships/(\$000)

Undersea Surveillance (CONSPAWARSYSCOM)

SOSUS

Cable & Survey Ship Support (\$000)

(Ship Days)

Maintenance/Install/Restore/Material/Fleet Support/
Special Projects/Travel

SURTASS

(\$000)

(Ship Days)

0	29,221	26,192	25,099
0	1,460	1,399	1,460
0	103,774	103,940	114,387
0	45,397	53,504	61,585
0	4,198	6,109	6,935

Fleet Electronic Command & Control (CONSPAWARSYSCOM)

Ashore Programs - (WY/\$000)

Afloat Programs (TFCC/NCCS-A) - (WY/\$000)

ROTHR Operational Sites

391/42,116	366/39,523	474/50,057	466/51,911
124/8,232	72/6,379	92/8,956	87/9,036
0	1	1	3

Ship Operations Electronic Warfare Support

EW Systems (total/upgrades)

AN/UHQ-16/Chaff, Active Electronic & Inflatable

Decoy Bouy-AN/SLQ-49 (WY/\$000)

26/2	26/3	26/4	26/5
509/4,508	631/3,191	631/3,817	700/3,796

Activity Group: Fleet Operations Support (cont'd)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Contractor Engineering Technical Services (CETS) (WY/\$000)	0/0	0/0	420/42,733	413/43,281
Navy Engineering Technical Services (NETS) (WY/\$000)	0/0	0/0	625/34,812	639/36,313

IV. Personnel Summary.

End Strength E/S

A. Military
Officer
Enlisted

4,951	5,127	5,241	5,521
<u>490</u>	<u>573</u>	<u>581</u>	<u>601</u>
4,461	4,554	4,660	4,920

B. Civilian
USDH
FNDH
FNIH

106	119	630	651
<u>106</u>	<u>119</u>	<u>630</u>	<u>651</u>
0	0	0	0
0	0	0	0

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Other Warfare Support
Budget Activity: 2 - General Purpose Forces

I. Description of Operations Financed.

Funding in this activity group supports a variety of warfare tactics, development and execution efforts designed to improve and enhance Naval Warfighting capabilities. These efforts include warfare tactics development/documentation, and exercise support and analysis.

Operational Readiness Assessment (ORA):

ORA concentrates chiefly in providing fleet exercise reconstruction and analysis and reliability, maintainability, and availability (RM&A) analysis. Fleet exercise reconstruction and analysis provides support to COMNAVSEA acquisition program managers and others for such efforts as exercise planning, installation of monitoring instrumentation aboard ships and aircraft, data collection, data verification and reconstruction, data analysis, and reporting exercise results to participants and planners. The program provides support to all multi-threat, multi-warfare scenario exercises.

RM&A analysis provides program managers and fleet commanders with both logistic support planning data and fleet operational combat systems RM&A equipment trends and problem definition for selected surface AAW and ASW combat systems. During normal operational deployment, combat system equipment operational status is recorded, collected and analyzed. From this data accurate operational RM&A indices are computed, and those factors limiting RM&A are analyzed and reported for corrective action.

Warfare Tactics Documentation:

Warfare Tactics Documentation provides funding for definition, specification, verification, assimilation, analysis, and formulation of data into warfare concepts of utilization for existing equipment and systems, mobilization planning, threat assessments, requirements definition, and fleet deployment operations planning. The product provides fleet users with detailed force deployment data and methods of using data in a timely manner. Both the Tactical Air Combat Training System (TACTS) and the Mid-Atlantic Electronic Warfare Range are used for tactics development and definition.

Activity Group: Other Warfare Support (cont'd)

Fleet Exercise Logistics Support:

It is essential that full utilization and exploitation of weapons, techniques and capabilities of forces contribute effectively to overall military objectives. To execute and enhance these capabilities, fleet exercises provide required training in simulated wartime scenarios. Fleet exercise participation enhances fleet unit proficiency in operating and employing weapon systems and wargame strategy. To train units effectively in various geographical, climatic, and diversified economic and political areas, fleet units must deploy to all parts of the world. Funding in this activity group will be used to plan and execute training deployments and redeployments to maintain maximum readiness and rapid deployment capabilities throughout the fleet areas of responsibility.

Tactical Training/Wargaming Support

The Tactical Training/Wargaming Support program is directed toward the phase-in of advanced concepts in tactical training for battle group commanders and senior staff officers. This objective is accomplished through the addition of new curricula centered around, but not limited to, the Enhanced Naval Warfare Gaming System and evolutionary development of the basic wargaming system at the Naval War College in Newport. Funding in this activity group provides support for the Tactical Training Groups at Norfolk and San Diego which have substantial computerized equipment linked by land lines to Newport. Through these Tactical Training Groups, wargaming strategies and concepts are brought directly to the Fleet for their evaluation and participation. Funds are required for site preparation, installation of equipment, operating and technical support for the new systems at the Fleet sites, as well as for associated tactical training support.

Naval Warfare Management

The Naval Warfare Management program provides specialized analytical support for the Naval Warfare Appraisal process and the updating of master plans for selected warfare areas.

II. Financial Summary (Dollars in Thousands).A. Sub-Activity Group Breakout.

	FY 1988	Amended	FY 1989	FY 1990	FY 1991
	Actual	Budget Request	Appropriation	Budget Request	Budget Request
OP READINESS ASSESSMENT	5,873	6,078	6,020	5,722	5,581
WARFARE TACTICS DOC	32,572	39,326	39,682	40,727	42,089
FLT EXERCISE LOG SUPPORT	7,652	7,973	7,938	8,972	9,361
TACTICAL TRAINING /					
WARGAMING SUPPORT	7,588	2,324	2,322	5,388	5,751
NAVAL WARFARE MANAGEMENT	4,539	2,721	2,721	4,646	5,092
TOTAL ACTIVITY GROUP	58,224	59,622	58,683	65,455	67,874

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate

Amount
62,640

2. Price Adjustments:

A. Annualization of FY 1989 Direct Pay Raise

1) Classified

(23)

B. FY 1990 Direct Pay Raise

1) Classified

(33)

C. Stock Fund

1) Non-Fuel

(33)

D. Industrial Fund Rates

(-3)

E. Foreign Currency

-3

F. Other Pricing Adjustments

(266)

(122)

(1,778)

2,219

3. Functional Program Transfers

A. Transfers In: Intra-Appropriation

1) Electronic Warfare Analysis and Master Plan consolidation.

Funds transfer to Naval Warfare Management from Ship Operations

Electronic Warfare Support with in Budget Activity Two to

consolidate the program under one activity group.

2,201

2,201

Activity Group: Other Warfare Support (cont'd)

1,345

4. Program Increases:

A. Other Program Increases in FY 1990 (1,345)

- 1) Increased use of desk top publishing systems to support increasing number of tactical publications with current level of personnel. Output capability will increase. 194
- 2) Increase support required for pre-warfare preparation, game conduct and post game analysis; increased support for Battle Force In-port Trainer (BFTI), Joint Operational Tactical Systems, Enhanced Naval Warfare Gaming Systems (JOTS/ENWGS) interfaces and increased maintenance of the Naval Warfare Tactical Data Base expansion. 98
- 3) Realignment of NAVSEA travel from centrally managed account to appropriate program lines. 40
- 4) Increased emphasis on Battle Group Exercise Support, reconstruction and analysis and the Navy Lessons Learned program. 53
- 5) Increased travel, supplies, spare parts support and transportation of equipment based on exercise schedules. 377
- 6) Increased Range support and Data Link line support required for operation of Pinecastle Range and other LANTFLT and PACFLT TACTS ranges to support additional fleet exercises in FY 1990. 583

-2,950

5. Program Decreases:

A. One-Time FY 1989 Costs

- 1) Design costs for Key West TACTS range. (-389)
- 2) Exercise Sharp Spear. -247

B. Other Program Decreases in FY 1990

- 1) Reduction in production costs for Naval Warfare and Allied Tactical publications, due to slip from FY 1990 to FY 1991. -142
- 2) Decrease in level of effort for Naval Warfare (-2,561)
- 3) Decrease is due to delay in publication maintenance and production of fleet publications. -221
- 4) Decrease reflects cancellation of the Consolidated Navy Electronic Warfare Training Plan, special deception program and reduced Battle Group EW Equipment. -307
- Integration to coincide with finalization of Fleet Apprentice Program. -323
- Fleet Apprentice Program. -676

Activity Group: Other Warfare Support (cont'd)

- 5) Management initiation to reduce Contractor Advisory Assistance Support (CASS) for Enhanced Naval Warfare Gaming Systems (ENWGS) training. -986
- 6) Revised annual contract cost for 600 hours Mediterranean Target Towing Services. -48

65,455

6. FY 1990 President's Budget Request

1,966

7. Price Adjustments:

- A. Annualization of FY 1990 Direct Pay Raise (13)
 - 1) Classified 13
- B. FY 1991 Direct Pay Raise (56)
 - 1) Classified 56
- C. Stock Fund (6)
 - 1) Non-Fuel 6
- D. Industrial Fund Rates 249
- E. Foreign Currency 12
- F. Other Pricing Adjustments 1,630

1,678

8. Program Increases:

- A. One-Time FY 1991 Costs (8)
 - 1) One additional workday for Civilian Employment in FY 1991. 8
- B. Other Program Growth in FY 1991 (1,670)
 - 1) Master Plan updates and warfare task appraisal required for Strike Anti-Surface Warfare, Mine Warfare, Amphibious Warfare and Special Warfare. (1,670) 388
 - 2) Funds backlog of publication which slipped from FY 1990, and increases number of updates to existing Naval Warfare and Allied Tactical publications based on changing requirements. 232
 - 3) Increased supplies and spare parts required for the electronic warfare installation at Cherry Point based on changing requirements. 89
 - 4) Increased support for Cherry Point, Tactical Air Combat Training Systems (TACTS) range and Mid Atlantic Electronic Warfare Range (MAEWR) for greater utilization and increased training opportunities. 710
 - 5) Increased support for Flag and other senior officer tactical training based on changing requirements. 145

Activity Group: Other Warfare Support (cont'd)

6) Revised annual contract cost for 600 hours of Mediterranean Target Towing Services.	106	
		-1,225
9. Program Decreases:		
A. Other Program Decreases in FY 1991		
1) Decrease in emphasis on the Navy Lessons Learned Program.	-69	
2) Decrease reflects Battle Group EW Equipment Integration being reduced to match the completion of the Apprentice Level Training Program.	-246	
3) Reduced operations at selected PACFLT ranges in order to meet shifting Operational requirements.	-910	
10. FY 1991 President's Budget Request		67,874

Activity Group: Other Warfare Support (cont'd)

III. Performance Criteria.	FY 1988	FY 1989	FY 1990	FY 1991
<u>OPERATIONAL READINESS ASSESSMENTS</u>				
Number of Exercises Supported (major)	15	13.4	14	13.9
BC Exercise Support (\$000)	1,467	1,314	717	486
Reconstruction and Analysis (\$000)	2,139	2,225	2,302	2,373
Trend Analysis of Battle Group				
Effectiveness (\$000)	500	814	791	815
Equipment Support	395	398	414	426
Lessons Learned	85	170	250	200
Battle Group EW Equipment Integration				
OJT Training	460	346	313	171
Consolidated Navy EW Training Plan	223	225	0	0
Special Deception Program	121	402	0	0
Measure of Effectiveness	348	143	204	115
EW Continuum and Feedback	120	0	0	0
<u>WARFARE TACTICS DOCUMENTATION</u>				
Commands Supporte (TIMS)	78	78	80	85
Number of Installations (NAVSTA/ SARS/TRIPOS)	146	1'6	160	170
Number of FTL Library Documents Processed	1,250	1,375	1,400	1,400
Number of FTL Library Requests Shipped	13,015	13,110	13,300	13,300
Number of Naval Warfare Publications/Manuals Revised	455	455	500	500
<u>FLEET EXERCISE SUPPORT</u>				
Number of Exercises Supported	52	51	54	54
<u>TACTICAL TRAINING/WARGAMING SUPPORT</u>				
TACTRAGRULANT/FAC and NOSC				
Courses of Instruction	55	45	45	45
Special Wargames	6	6	6	6
Soviet Seapower Education Program Presentations	78	80	80	80

Activity Group: Other Warfare Support (cont'd)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	25	26	26	26

NAVAL WARFARE MANAGEMENT
Program Objective Memorandum,
Warfare Task Appraisals

IV. Personnel Summary.

End Strength E/S

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
A. <u>Military</u>	384	128	129	129
<u>Officer</u>	119	71	71	71
<u>Enlisted</u>	265	57	58	58
B. <u>Civilian</u>	63	67	63	63
<u>USDH</u>	63	67	63	63
<u>FNDH</u>	0	0	0	0
<u>FNIH</u>	0	0	0	0

Department of the Navy
Operation and Maintenance, Navy

Activity Group: Fleet Air Training
Budget Activity: II - General Purpose Forces

I. Description of Operations Financed.

This program provides funds for flying hours and aviation training support of Navy/Marine Corps Fleet Readiness Squadrons (FRS). The operations financed in this program are the day-to-day operating costs for civilian labor, administrative supplies, materials, equipment, maintenance service contracts, and travel of personnel required in support of the training mission.

Fleet Air Training. There are 28 Navy and 8 Marine Corps Fleet Readiness Squadrons funded in this program. Thirty two squadrons train replacement aircrews for the Navy and Marine Corps TACAIR/ASW communities in weapons tactics training, weapons delivery qualifications and, where applicable, carrier landing qualifications. Graduates of these readiness squadrons are qualified for assignment to active squadrons. The other four squadrons provide flight training to fleet pilots, and adversary services to fleet squadrons in air-to-air combat training. This activity group also supports training operations at the Naval Fighter Weapons School at NAS Miramar, and the Naval Strike Warfare Center at NAS Fallon.

Student training levels are based on authorized TACAIR/ASW force levels and aircrew/maintenance personnel rotation rates, and Pilot Training Rate (PTR) output from the Naval Undergraduate Pilot Training Programs. Funds requested include the cost of petroleum, oil and lubricants (POL), organizational and intermediate (O&I) maintenance, squadron supplies, and Aviation Depot Level Repairables (AVDLR). The cost per operating hour for each aircraft is based on actual operating data over the previous 18 month period.

Fleet Air Training Support. The purpose of this program is to support Navy/Marine Corps FRSs in their mission of conducting replacement aircrew training. Included in this program are the Fleet Aviation Specialized Operational Training Groups (FASOTRAGRU) Atlantic Fleet and Pacific Fleet.

Activity Group: Fleet Air Training (Continued)

The mission of the FASOTRAGRU is to provide training in weapon systems and equipment (including special weapons) and to maintain proficiency by conducting special program inspections. Associated training of personnel includes:

- Anti-Submarine Warfare Equipment/Tactics.
- Anti-Ship Missile Defense Equipment Tactics.
- Electronic Warfare Equipment Tactics/Radar Navigation/Communication/other electronics aircraft systems and equipment.
- Special weapons delivery tactics, procedures, and handling.
- Land survival, Evasion Techniques, and Prisoner of War conduct.

The Training Groups are responsible for operation and maintenance of flight simulation facilities, including weapons system trainers and operational flight trainers, film libraries, associated aviation training aid/devices and equipment.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	FY 1989			FY 1990 Budget Request	FY 1991 Budget Request
		Amended Pres. Budget	Appro- priation	Current Estimate		
1. Aircraft Ops	375,946	379,589	379,589	346,303	382,721	376,648
2. Air Staffs	5,280	8,461	8,301	8,317	10,271	10,394
3. Air TAD	3,933	4,406	4,166	4,166	5,082	5,171
4. Other A/C Support	30,079	44,214	41,647	38,100	40,843	41,356
Total	415,238	436,670	433,703	396,886	438,917	433,569

Activity Group: Fleet Air Training (Continued)

\$ in 000

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate	396,886
2. Pricing Adjustments	-10,312
A. Annualization of FY 1989 Direct Pay Raises	(148)
1) Classified	89
2) Wage Board	59
B. FY 1990 Direct Pay Raises	(136)
1) Classified	119
2) Wage Board	12
C. Foreign National Direct	5
C. Stock Fund	(-12,733)
1) Fuel	-9,617
2) Non-Fuel	-3,116
D. Industrial Fund Rates	(7)
E. Other Pricing Adjustments	(2,130)
3. Program Increases	77,903
A. Other Program Growth in FY 1990	(77,903)
1) Squadron Transitions/Upgrades. Increase in training requirements to support squadron transitions and upgrades.	26,154

Squadron	Students	Hours	Amount
F/A-18C	57	9,363	19,781
SU-60F	61	4,298	3,843
S-3B	67	1,104	2,182
AH-1W	17	700	348

- 2) F/A-18D (HORNET). Increase of 8,286 hours in training requirements for 58 additional students in support of F/A-18D TACAIR missions.
- 3) E-2C (HAWKEYE). Increase of 1,516 hours in training requirements for 27 additional students reflects loss of students in FY 1989 due to lower PTR output. Increase is required to meet TACAIR aircrew training requirements.

14,686

2,165

Activity Group: Fleet Air Training (Continued)

B. Reconciliation of Increases and Decreases (Continued).

\$ in 000

4) P-3 (ORION). Increase of 2,672 hours in training requirements for 79 additional students reflects loss of students in FY 1989 due to lower PTR output. Increase is required to meet TACAIR aircrew training requirements.	1,087																					
5) F-16 (FALCON). Increase in F-16 maintenance contract to support additional detachment site to replace F-21 adversary aircraft.	5,743																					
6) Increase of 6,805 hours for adversary aircraft squadrons to support increase of FRS aircrew training requirements.	9,631																					
7) Increase of 823 hours in training requirements due to change in syllabus hours for AV-8B and F-14 to reflect introduction of AV-8B Night Attack Version and F-14A+.	1,543																					
8) Net increase of 7,967 hours in training requirements for 60 additional students consisting of weapon systems familiarization, primary and secondary mission training, tactics training, weapon delivery application, and carrier landing qualifications.	8,291																					
9) Increased travel requirements due to additional training requirements and students.	888																					
10) Increase in operating support, supplies, materials, equipment, maintenance service contracts in support of increased training requirements at FASOTRAGRUS, Naval Strike Warfare Center and Navy Fighter Weapons School.	3,522																					
11) Increase in Contract Simulator Instruction (CSI), Aviation Training Support System (ATSS), and Instructional Systems Development (ISD).	4,193																					
4. Program Decreases		(-25,560)																				
a. Other Program Decreases in FY 1990		-19,543																				
1) Squadron Transitions/Upgrades. Decrease in training requirements to support squadron transitions and upgrades.																						
	<table><tr><td>Squadron</td><td>Students</td><td>Hours</td><td>Amount</td></tr><tr><td>A-7</td><td>-13</td><td>-2,088</td><td>-2,185</td></tr><tr><td>F/A-18A/R</td><td>-51</td><td>-6,955</td><td>-13,655</td></tr><tr><td>SH-3H</td><td>-58</td><td>-4,041</td><td>-2,724</td></tr><tr><td>S-3A</td><td>-33</td><td>-741</td><td>-979</td></tr></table>	Squadron	Students	Hours	Amount	A-7	-13	-2,088	-2,185	F/A-18A/R	-51	-6,955	-13,655	SH-3H	-58	-4,041	-2,724	S-3A	-33	-741	-979	
Squadron	Students	Hours	Amount																			
A-7	-13	-2,088	-2,185																			
F/A-18A/R	-51	-6,955	-13,655																			
SH-3H	-58	-4,041	-2,724																			
S-3A	-33	-741	-979																			
			1-2-96																			

Activity Group: Fleet Air Training (Continued)

B. Reconciliation of Increases and Decreases (Continued) . \$ in 000

2) Decrease in Contract Operation and Maintenance of Simulators (COMS) due to change in mix of simulators and hours programmed.	-5,987	
3) Decrease in civilian personnel (-6 E/S) at FASOTRACRUs due to actions to provide contract instructors.	-30	
5. FY 1990 President's Budget Request		438,917
6. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		11,809
1) Classified	(73)	
2) Wage Board	46	
B. FY 1990 Direct Pay Raises		
1) Classified	(209)	
2) Wage Board	186	
3) Foreign National Direct	18	
C. Stock Fund	5	
1) Fuel	(9,041)	
2) Non-Fuel	5,291	
D. Industrial Fund Rates	3,750	
E. Other Pricing Adjustments	(6)	
	(2,480)	
7. Program Increases		10,217
A. One-Time FY 1991 Costs	(33)	
1) One additional civilian personnel workday.		
B. Other Program Growth in FY 1991	33	
1) <u>Squadron Transitions/Upgrades</u> . Increase in training requirements to support squadron transitions and upgrades.	2,762	

Squadron	Students	Hours	Amount
SH-60F	11	1,094	1,003
AH-1W	34	1,183	922
S-3B	18	548	837

Activity Group: Fleet Air Training (Continued)

B. Reconciliation of Increases and Decreases (Continued).

\$ in 000

- 2) F/A-18D (HORNET). Increase of 3,671 hours in training requirements for 25 additional students in support of F/A-18D TACAIR missions. 5,222
- 3) F-14D (TOMCAT). Increase of 800 hours in training requirements for 10 students to support introduction of F-14D aircraft. 1,609
- 4) Increased travel requirements due to additional training requirements and students. 51
- 5) Increase in operating support, supplies, materials, equipment, maintenance service contracts in support of increased training requirements at FASOTRAGRUS, Naval Strike Warfare Center and Navy Fighter Weapons School. 540

8. Program Decreases

A. Other Program Decreases in FY 1991

- 1) Squadron Transitions/Upgrades. Decrease in training requirements to support squadron transitions and upgrades.

(-27,374) -27,374
-6,386

Squadron	Students	Hours	Amount
A-7E	-27	-3,762	-4,096
S-3A	-7	-896	-1,229
AH-1J	-38	-2,087	-1,061

- 2) Decrease of 3,592 hours in F-14A training requirements due to introduction of F-14D aircraft. -8,021
- 3) Decrease of 2,797 hours in adversary aircraft squadron due to decrease in FRS training requirements. -3,216
- 4) Decrease in F/A-18D AVDLR cost per hour as maintenance capability matures. -2,770
- 5) Net decrease of 2,229 hours in FRS training requirements. -4,532
- 6) Decrease in Contract Operation and Maintenance of Simulators (COMS) due to change in mix of simulators and hours programmed. -1,127
- 7) Decrease in civilian personnel (-79 E/S) at FASOTRAGRUS due to actions to provide contract instructors. -1,322

9. FY 1991 President's Budget Request

433,569

1-2-98

Activity Group: Fleet Air Training (Continued)

III. Performance Criteria.

A. Aircraft Operations

	FY 1938			FY 1989		
	Average Operating Aircraft	Flying Hours	Cost (\$000)	Average Operating Aircraft	Flying Hours	Cost (\$000)
	708	253,058	375,946	678	238,376	346,302
Hours per Aircraft		357			352	
Cost per Hour			1,487			1,453

	FY 1990			FY 1991		
	Average Operating Aircraft	Flying Hours	Cost (\$000)	Average Operating Aircraft	Flying Hours	Cost (\$000)
	675	268,090	382,721	681	260,874	376,647
Hours per Aircraft		397			383	
Costs per Hour			1,428			1,414

B. Operational Training Groups
Major Training Devices
Simulator Hours Programmed

	FY 1988	FY 1989	FY 1990	FY 1991
	96	102	102	107
	272,449	321,635	301,318	312,824

IV. Personnel Summary.

Military E/S	FY 1988	FY 1989	FY 1990	FY 1991
	16,913	16,984	16,531	16,557
Officer	2,550	2,561	2,560	2,563
Enlisted	14,363	14,423	13,971	13,994
Civilian E/S	301	356	350	271
USDH	286	341	335	256
FNDH	15	15	15	15
FNH	0	0	0	0

Department of the Navy
Operation & Maintenance, Navy
Exhibit OP-05

Activity Group: Fleet Ship Training
Budget Activity: 2 - General Purpose Forces

I. Description of Operations Financed.

Functions which are financed within this program include classroom instruction, shipboard training, underway and inport training and assistance visits aboard ships, shipboard inspections of special weapons, shake-down and refresher training, and shipboard team training using mobile simulators. The costs of using fleet training ranges and developing post-exercise analysis for range users are also included.

The funding requested under this program is specifically used for the accomplishment of the following types of training:

Special Weapons Training. Includes funding to support special weapons technical inspections and assist visits where fleet units are located. Special Weapons Acceptance Inspections are conducted to ensure that a ship is capable of properly handling nuclear weapons prior to their placement aboard ship. Special Weapons Technical Proficiency Inspections are conducted on board ships which carry special weapons to ensure that training, security, safety, emergency, technical, command and control, and administrative procedures comply with established guidelines and regulations. Classroom training in various special weapons subject areas (including basic fundamentals, logistic support, safety, officer orientation and indoctrination, in special weapons, chemical warfare programs, and biological research) provide trained personnel directly to fleet units. Shipboard special weapons training emphasizes security, weapons handling, administration, emergency destruction and accident response.

Shakedown and Refresher Training. This training is conducted for ships which have recently been constructed, reactivated, or overhauled and are preparing for overseas deployments and fleet exercises. Training is provided and exercises are conducted in key shipboard areas such as damage control, firefighting, gunnery, navigation, engineering, communications, shiphandling, basic seamanship, and in the ship's primary warfare areas so that the ship is more prepared for combat and can safely and effectively participate in fleet operations. In addition to underway training, crews receive inport training that includes electronic warfare training and weapons systems team training. The time required for training can range from two days to seven weeks, depending upon the size of the ship and the previous underway training that the crew has received. The same facilities and personnel that are used for the training of U.S. Navy ships are also used for the training of ships from the Coast Guard and foreign Navies.

Activity Group: Fleet Ship Training (Com'd)

Import Tactical Training. Includes schoolhouse and pierside tactical training, which is supported by the use of mobile vans that are designed to simulate a variety of at sea threat environments. Functions in this area are designed to facilitate tactical proficiency at the unit, squadron, and battlegroup levels of operation.

Engineering Training. Includes school house training and cyclic visits to ships by Engineering Mobile Training Teams, whose mission is to train personnel in correct engineering practices and to assist them in preparing for periodic propulsion examinations and inspections. During these visits the ship's main propulsion and damage control organizations are examined and evaluated in such areas as material condition, preservation and cleanliness, administration, level of personnel knowledge, training, drill and various other evolutions.

Training Ranges. Funding for training range operations provides aerial and surface targets, electronic warfare training, anti-submarine warfare readiness effectiveness measuring, and mine recovery operations. Funding is also used for post-exercise reconstruction and analysis to determine how well individual units perform while operating on the ranges.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1989				FY 1990		FY 1991	
	FY 1988	Amended Budget Request	Appropriation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request
Flt. Ship Training Support	7,165	5,253	5,227	5,443	5,935	6,054		
Fleet Training Ranges	39,066	37,822	37,768	37,798	36,408	38,481		
Total Act. Group	46,231	43,075	42,995	43,241	42,343	44,535		

Activity Group: Fleet Ship Training (Cont'd)

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		<u>Amount</u>
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises	(33)	43,241
1) Classified	33	
B. FY 1990 Direct Pay Raises	(41)	1,259
1) Classified	41	
C. Stock Fund	(-58)	
1) Fuel	-56	
2) Non-Fuel	-2	
D. Industrial Fund Rates	(363)	
E. Other Pricing Adjustments	(880)	
3. Program Increases		1,237
A. One-Time FY 1990 Costs	(236)	
1) Increase provides for an advanced level on-the-job training package for AN/UHQ-13 simulation vans.	236	
B. Other Program Growth In FY 1990	(1001)	
1) Increase for the Multi-Unit Tactical System (MUTTS)/Battle Force Import Training (BFIT) program. This program provides a means to train, exercise, and evaluate the basic warfighting readiness of battleforce equipment and personnel without being underway. It also provides a unique opportunity to evaluate tactics and the ability of tacticians to support national strategy and objectives. The primary goal of MUTTS/BFIT is to complement underway training by providing tactical and command and control training import so that ships' crews can more rapidly transition to higher quality/advanced training while at sea. By enhancing operator and equipment readiness while import,	813	

MUTTS/BFIT reduces lost training opportunities during the limited amount of time that ships spend at sea.		
2) Increase in contractor technical support for the Wide Area Active Surveillance (WAAS) radar system at the Atlantic Fleet Weapons Training Facility (AFWTF). The WAAS radar is a one-of-a-kind system (the latest phased array technology) specifically built for the the AFWTF. Increased contractor support is required to correct technical problems such as premature and/or intermittent drop of tracks, false target tracks, and late detection with the radar system.	179	
3) Personnel benefits increase associated with Federal Employee Retirement System (FERS).	9	
4. Program Decreases		-3,394
A. Other Program Decreases in FY 1990		(-3,394)
1) Reduction in operations and analytical support at the Southern California ASW Range (SOAR), Pacific Missile Test Center, and Pacific Missile Range Facility.		-2,596
2) General reduction in supplies and material support required for classroom instruction and shipboard training. Reduction is based on anticipated efficiencies and a decrease in previously projected estimates of student throughput in FY 1990 and beyond.		-699
3) Decrease of four work years of effort in training support.		-99
5. FY 1990 President's Budget Request		42,343
6. Pricing Adjustments		
A. Annualization of FY 1990 Direct Pay Raises	(17)	
1) Classified	17	
B. FY 1991 Direct Pay Raise	(63)	1,335

Activity Group: Fleet Ship Training (Cont'd)

1) Classified	63	
D. Stock Fund	(34)	
1) Fuel	18	
2) Non-Fuel	16	
E. Industrial Fund Rates	(462)	
F. Other Pricing Adjustments	(759)	
		1,282
7. Program Increases		
A. One-Time FY 1991 Costs	(9)	
1) One additional paid civilian work day in FY 1991.	9	
B. Other Program Growth In FY 1991.	(1,273)	
1) Increase to provide for an apprentice level on-the-job training package for AN/SSQ-74 multi-purpose cover and deception vans.	220	
2) Phased increase for the Multi-Unit Tactical Training System/Battle Force Inport Training program.	31	
3) Increase for a communications link that will provide for adequate Underwater Tracking Range (UTR) surveillance and interface between range participants and will improve range training data used in post-exercise reconstruction, analysis, and evaluation.	163	
4) Increase to support minor adjustments to service craft overhaul schedules.	12	
5) Increase to support personnel benefits associated with Federal Employees Retirement System (FERS) participation.	8	
6) Increase in operation of Pacific Missile Test Center, Pacific Missile Range Hawaii, and PACER program. Increase is required to support additional live training and exercises such as MINEX's and BOMBEX's to prepare ships and aircrews for deployment and to maintain the desired levels of combat readiness for non-deployed units.	839	

-425

(-243)

(-182)

- 44,535

44,535

FY 1991

FY 1991

1661 YJ

1661 YJ

1661 YJ

1-2-105.

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Unified Commands
Budget Activity: 2 - General Purpose Forces

I. Description of Operations Financed.

The unified commands direct tri-service forces in joint operations in support of national objectives. The unified commands supported are the Commanders in Chief, U. S. Atlantic (USCINCLANT) and Pacific (USCINCPAC), subordinate commands, and special tri-service programs. The funds requested provide for the day-to-day operating cost of these commands, including pay of civilian personnel, administrative supplies and equipment, travel, training, maintenance of office equipment, utilities, and communications.

Funds in this program are also requested for Overseas Military Banking. The cost of this program is determined on a defense-wide basis and allocated to the services in relation to the banking facilities within their respective areas of responsibility. The total defense-wide cost of the program is the net of expenses and income. Expenses include normal operating expenses and a fixed management fee. Income includes service charges and interest income earned on investable balances of accounts maintained at the banking facilities. Funds required for Overseas Military Banking vary inversely with interest rates.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	FY 1989		FY 1990	FY 1991
	FY 1988 Actual	Amended Budget Request	Appro- priation	Current Estimate	Budget Request
Unified Commands	31,784	25,474	21,435	26,332	33,965
Total Act. Group	31,784	25,474	21,435	26,332	33,965

B. Reconciliation of Increases and Decreases.

	Amount
1. FY 1989 Current Estimate	26,332
2. Price Adjustments	1,117
A. Annualization of FY 1989 Direct Pay Raise	(109)
1) Classified	100
2) Foreign National Direct	9
B. FY 1990 Direct Pay Raise	(193)
1) Classified	154
2) Foreign National Direct	39
C. Stock Fund	(8)
1) Non-Fuel	8
D. Industrial Fund Rates	(6)
E. Foreign National Indirect Hire	(53)
F. Foreign Currency Adjustments	(307)
G. Other Pricing Adjustments	(441)
3. Functional Program Transfers	
A. Transfers In - Inter Appropriation	400
1) Joint Doctrine Center transfer from U.S. Air Force to U.S. Navy (USCINCLANT).	400
4. Program Increases:	5,765
A. One-Time FY 1990 Costs	(500)
1) Increased funding support for Combined Operations Center support at USCINCLANT.	500
B. Other Program Growth in FY 1990	(5,265)
1) Increase is to fully fund the Caribbean Basin Surveillance (JARCC Radar Upgrade).	4,000
2) Increase is to remain in compliance with the Goldwater-Nicholas DOD Reorganization Act which requires increased emphasis on CINC involvement in Joint Exercises; management of interoperability issues and increased theater special operations elements.	1,000
3) Increased contractor support required for Naval Air Systems Command to complete technical packages to issue contract for radar multi-tracking system for JARCC Key West upgrade.	233

Activity Group: Unified Commands (Cont'd)

4) ADP Computer maintenance increased expense due to actual FY 1988 performance of TEMPEST computer at COMUSNAVSOC.	32	
5. Program Decreases:		
A. Other Program Decreases in FY 1990	(-1,656)	-1,656
1) Reduction is the result of management efforts to hold down travel costs at USCINCPAC and USCINCLANT.	-14	
2) Reduction in funding for equipment rental and other purchase services to align funding with projected program requirements at Commander in Chief, U.S. Pacific.	-839	
3) Reduction of 7 Civilian end strength due to the DoD Inspector General initiative to reduce administrative oversight (Van Der Schaff Study). Includes annualization of 3 end strength reduced in FY 1989.	-225	
4) Decrease is due to the reduction in costs for communication lines for Joint Exercises. Requirements for each exercise is different.	-26	
4) Decrease in program efforts for WARGAMES as a result of management review.	-150	
5) Reduction in the purchase of equipment, material and supplies due to the acquisition of modular furniture at USCINCLANT.	-392	
6) Reduction in JCS Exercise expenses at Commander in Chief, U.S. Atlantic.	-10	
6. FY 1990 President's Budget Request		31,958
7. Pricing Adjustments:		924
A. Annualization of FY 1990 Direct Pay Raise	(73)	
1) Classified	53	
2) Foreign National Direct	20	
B. FY 1991 Direct Pay Raise	(293)	
1) Classified	243	
2) Foreign National Direct	50	
C. Stock Fund	(9)	
1) Non-Fuel	9	
D. Industrial Fund Rates	(5)	
E. Foreign National Indirect Hire	(11)	

Activity Group: Unified Commands (Cont'd)

- F. Foreign Currency Adjustments
- G. Other Pricing Adjustments

(-15)
(548)

8. Program Increases:

3,251

A. One-Time FY 1991 Costs

(40)

- 1) One additional workday of civilian employment in FY 1991.

40

B. Other Program Growth in FY 1991

(3,221)

- 1) Additional increase for Caribbean Basin Surveillance (JARCC Radar Upgrade) and increased contract service in support of JARCC Key West Radar Upgrade).
- 2) Increase in requirements for Joint Exercise, Solid Shield, which require additional land rights and equipment.
- 3) Increase in support of the ADP and communication system at Combined Operations Center, Keflavik facility.

1,000

211

2,000

9. Program Decreases:

-2,168

A. One-Time FY 1990 Costs

(-516)

- 1) Combined Operations Center

-516

B. Other Program Growth in FY 1991

(-1,652)

- 1) Decrease in support services and other purchases due to revised program requirements at USCINCPAC.
- 2) Decrease in program efforts for WARGAMES as a result of management review.
- 3) Reduction of 10 Civilian end strength due to the DoD Inspector General initiative to reduce administrative oversight (Van Der Schaff Study). Includes annualization of 7 end strength reduced in FY 1990.
- 4) Reduction is the result of management efforts to hold down travel costs at USCINCPAC & USCINCLANT.

-1,173

-61

-412

-6

15. FY 1991 President's Budget Request

33,965

Activity Group: Unified Commands (Cont'd)

III. Performance Criteria.

	FY 1988	FY 1989	FY 1990	FY 1991
	O&M\$ CIV	O&M\$ CIV	O&M\$ CIV	O&M\$ CIV
USCINCLANT	6,275	6,692	11,710	14,302
USCINCPAC	15,990	12,980	13,579	12,953
COMUSNAVS	704	371	331	329
CNO WARGAMES	1,405	1,680	1,726	1,758
Overseas Banking	4,664	4,599	4,612	4,623
Joint Chiefs of Staff/CINCS				
Summer Conference	1,303			
Classified Project	1,443			
Total	31,784	26,322	31,958	33,965

IV. Personnel Summary.

	FY 1988	FY 1989	FY 1990	FY 1991
End Strength E/S				
A. Military	826	826	801	779
Officer	357	372	355	347
Enlisted	469	454	446	432
B. Civilian	261	272	265	255
USDH	250	261	254	244
FNDH	3	3	3	3
FNH	8	8	8	8

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Fleet Commands and Staffs
Budget Activity: 2 - General Purpose Forces

I. Description of Operations Financed.

Fleet Commands and Staffs exercise command, operational control and coordination over assigned forces including employment of all units (ships, aircraft, support activities and other related units). They plan for, and when required, conduct operations to protect assigned forces, control vital sea areas, and protect sea lines of communications.

The funds requested provide for the day-to-day operating costs of the Commander-in-Chief, U.S. Naval Forces Europe, the Atlantic and Pacific Fleet Commanders and their staffs, and other staffs reporting directly to the Chief of Naval Operations and directly supporting the operating forces. Funding also pays for the operation of Armed Forces Radio and Television service, the Navy Imaging Command and Navy Internal Relations Activity.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988			FY 1989		FY 1990		FY 1991	
	FY 1988	Amended		Appro-	Current	Budget	Budget	Budget	Budget
	Actual	Budget		priation	Estimate	Request	Request	Request	Request
		Request							
Staff Administration	90,560	77,292		76,983	77,216	79,983	80,159		
Armed Forces Radio	8,867	8,968		8,850	9,013	8,881	9,173		
& Television	7,778	6,927		6,823	6,846	7,495	7,714		
Navy Imaging Command	-----	-----		-----	-----	-----	-----		
Total Activity Group	107,205	93,187		92,656	93,075	96,359	97,046		

Activity Group: Fleet Commands and Staffs (cont'd)

Amount

R. Reconciliation of Increases and Decreases:

1. FY 1989 Current Estimate			
2. Pricing Adjustments:			
A. Annualization of FY 1989 Direct Pay Raise			
1) Classified	(485)		
2) Wage Grade	467		
3) Foreign National Direct	4		
B. FY 1990 Direct Pay Raise	14		
1) Classified	(739)		
2) Wage Grade	697		
3) Foreign National Direct	1		
C. Stock Fund	41		
1) Fuel	(26)		
2) Non-Fuel	-3		
D. Industrial Fund Rates	29		
E. Foreign National Indirect Hire	(290)		
F. Foreign Currency fluctuations	(19)		
G. Other Pricing Adjustments	(150)		
	(964)		
3. Functional Program Transfers:			
A. Transfers In			1,985
1) Navy Audiovisual Support Center (NAVSC) Consolidation. Civilian personnel salaries and support funding transfer to the Naval Imaging Command in Budget Activity Two, General Purpose Forces from Budget Activity Nine, Administrative & Associated Activities, to achieve a consolidated NAVSC program.	687		
2) Transfer of operating costs for Type Commander Headquarters Automated Information System (THAIS) from centrally managed program in Budget Activity Seven. THAIS automates 10 functional areas: readiness, employment, inspections, command index, ship maintenance financial, administration, personnel, logistics and aviation maintenance.	1,298		
4. Program Increases			
A. Other Program Growth in FY 1990			543
1) Increase is due to new requirements for Navy Tactical Interoperability Support Activity to perform joint	243		

Activity Group: Fleet Commands and Staffs (cont'd)

certification testing on Navy Command Control, Communications and Intelligence Systems.		
2) Navy Headquarters Budgeting System (NHBS) telecommunication connection from Budget submitting offices to NAVCOMPT, and requirements for hardware maintenance, software development, and supplies.	300	
5. Program Decreases		-1,898
A. Other Program Decreases in FY 1990		
1) Decrease reflects reduction in Command Post Exercises and Contingency Operations at Military Sealift Command.	-145	
2) Maintenance cost savings resulting from replacement of aged equipment including IBM displaywriters and Xerox machines.	-97	
3) Reduction from recycling of office equipment.	-11	
4) Enhanced scrutiny of office supply requisitions.	-8	
5) Reduction in Command and Control (C3) operations and operational support, such as supplies/materials, equipment maintenance and telecommunication support.	-322	
6) Reduction of 17 Civilian end strength due to the DoD Inspector General initiative to reduce administrative oversight (Van Der Schaff Study). Reduction also includes annualization of 13 end strength reduced in FY 1989.	-997	
7) Decrease in the amount of Armed Forces Radio and Television equipment purchased.	-318	
6. FY 1990 President's Budget Estimate		96,359
7. Pricing Adjustments:		2,656
A. Annualization of FY 1990 Pay Raise	(378)	
1) Classified	317	
2) Wage Board	1	
3) Foreign National Direct	60	
B. FY 1991 Direct Pay Raise	(1,043)	
1) Classified	1,031	
2) Wage Board	1	
3) Foreign National Direct	11	
C. Stock Fund	(112)	
1) Fuel	1	
2) Non-Fuel	111	

Activity Group: Fleet Commands and Staffs (cont'd)

D. Industrial Fund Rates	(252)	
E. Foreign National Indirect Hire	(15)	
F. Foreign Currency Adjustments	(2)	
G. Other Pricing Adjustments	(854)	
		442
8. Program Increases		
A. Annualization of FY 1990 Increases	(179)	
1) One additional workday of Civilian Employment.	179	
B. Other Program Growth in FY 1991	(263)	
1) Increase is due to Link II Model 5 upgrade with associated testing and certification at Navy Tactical Interoperability Support Activity.	121	
2) Type Commander Headquarters Automated Information system (THAIS)	38	
3) Increase in Civilian personnel benefits in accordance with FERS participation.	104	
		-2,411
9. Program Decreases		
A. One-time cost	(-9)	
1) Foreign National Indirect Retroactive and Separation Liability.	-9	
B. Other Program Decreases in FY 1991	(-2,402)	
1) Decrease in contingency operations and Command Post Exercises at Military Sealift Command.	-690	
2) Decrease due to more efficient stocking of supplies and replacement of equipment at NAVCENT.	-83	
3) Decrease in the amount of AFRIS equipment purchased.	-36	
4) Decrease in purchase of materials, supplies equipment and contracts.	-551	
5) Reduction in Command & Control Operations, and savings from replacement of aged equipment.	-107	
6) Reduction of 20 Civilian end strength due to the DoD Inspector General initiative to reduce administrative oversight (Van Der Schaff Study).	-840	
7) Decrease of 4 Civilian end strength from other Fleet Units as administrative requirements become more efficient.	-95	
10. FY 1991 President's Budget Request		97,046

Activity Group: Fleet Commands and Staffs (cont'd)

III. Performance Criteria.

Fleet Commands & Staff	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	CIV E/S	\$	CIV E/S	\$	CIV E/S	\$	CIV E/S
CINCLANTFLT	7,339	141	6,639	146	6,429	142	6,068	140
CINCPACFLT	9,034	99	4,846	95	5,052	95	5,240	90
CINCUSNAVEUR	2,283	41	2,703	45	2,661	45	2,674	44
COMUSNAVCENT	1,284	5	702	5	896	5	817	5
TYPE COMMANDERS	31,762	643	25,290	645	26,842	636	27,287	626
Submarine Sqdn Staffs	4,081	7	3,542	0	3,477	0	3,543	0
Surface Sqdn Staffs	3,120	2	3,168	2	4,702	2	4,680	2
Other Fleet Staffs/Units	20,571	275	19,554	282	18,721	279	18,929	274
COMINSEWARCO	1,924	22	1,756	22	1,839	22	1,892	22
COMFAIRMED	1,276	15	1,085	13	991	12	558	11
Naval Imaging Command	7,778	109	6,846	121	7,495	133	7,714	133
Navy Broadcasting Service	4,960	25	4,822	27	4,848	27	5,058	27
Navy Tact Interoperability	4,767	16	4,641	16	5,154	16	5,427	16
Support Activity								
COMOPTEVFOR	521	0	536	0	544	0	550	0
COMM Second Fleet	500	0	529	0	516	0	532	0
COMM Third Fleet	0	0	0	0	0	0	0	0
COMM Sixth Fleet	453	0	298	0	298	0	297	0
COMM Seventh Fleet	156	0	160	0	163	0	165	0
AFRTS	2,502	0	2,616	0	2,387	0	2,422	0
Military Sealift Cmd Contingency	1,525	0	1,767	0	1,698	0	1,100	0
Navy Internal Relations Activity	1,405	16	1,575	17	1,646	17	1,693	17
TOTAL	107,205	1,416	93,075	1,436	96,359	1,431	97,046	1,407

IV. Personnel Summary.

End Strength E/S		FY 1988	FY 1989	FY 1990	FY 1991
A. Military	Officer	10,966	10,937	10,758	10,609
	Enlisted	3,504	3,590	3,533	3,496
		7,462	7,347	7,225	7,113
B. Civilian	USDH	1,416	1,436	1,431	1,407
	FNDH	1,383	1,406	1,401	1,377
	FNIH	19	15	15	15
		14	15	15	15

1-2-115

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Cruise Missile
Budget Activity: 2 - General Purpose Forces

I. Description of Operations Financed

The mission of the Cruise Missiles Project (CMP) is to develop, test, evaluate, acquire and support the Navy Cruise Missiles and to maximize subsystem, component and software commonality to derive maximum benefit from the management of the several Cruise Missile programs. Through this program, CMP provides for overall management and engineering support of the Sea Launched Cruise Missile.

Cruise Missile Support funds the Operations and Engineering effort required to maintain the TOMAHAWK Weapon System. This includes:

A. Operational Test Launch (OTL) Flight Test

OTL flight tests are the primary means for evaluating production missiles to determine and monitor operational readiness and aging effects of the deployed weapons system. Tests will also be used to support fleet training, tactics development and to provide diagnostic information which can be used to enhance weapon system effectiveness.

The OTL scenario encompasses returning a fleet "All-Up-Round" (AUR) to the TOMAHAWK Weapons Facility (TWF) for pre-flight preparation including installation of a Range Safety System or a Recovery Exercise Module. Detailed test planning in concert with appropriate fleet activities and the flight test is conducted using a realistic operational scenario.

Following an OTL flight test, the missile is recovered, refurbished at the TWF and returned to the operational inventory. Program costs include range support, flight test instrumentation, target support, data reduction, and labor performed during pre-flight preparation and post-flight refurbishment.

The OTL program is the only method for accurately monitoring flight reliability of production rounds to ensure product integrity.

B. Depot Maintenance

TOMAHAWK missiles will be returned to the TOMAHAWK Weapons Facilities (TWF) for examination and recertification (periodic maintenance). Any retrofits and/or modifications of the missile will be accomplished during the recertification process. In addition missiles are refurbished after an UTL or reworked if damaged during fleet handling at the TWF.

C. Nuclear Safety and Certification and SEARA Efforts

The Nuclear Safety and Certification effort includes Nuclear Safety Analysis (NSA) update to support changes to the baseline (IOC) systems, and for follow-on platforms and updates to the Independent Software Nuclear Safety Analysis (ISNSA) for changes to the software and firmware. Both Surface Ship and Submarine TOMAHAWK Weapon Systems are covered. The Stockpile Evaluation and Reliability Assessment (SEARA) program is joint DOE-Navy assessment of the Sea Launched Navy Nuclear Warheads (W80-0). The program includes Quality Assurance Stockpile Tests, Stockpile Laboratory Tests and Joint Integrated Laboratory Tests.

D. Maintenance/Technical Support

Maintenance/Technical Support includes software maintenance, platform maintenance requirements, logistics and technical support. Software upkeep is required separately for the anti-ship and land-attack cruise missile variants. Platform maintenance requirements include support of the Surface Ship Weapons Control Systems, the Armored Box Launchers, the Vertical Launch System, the Submarine Combat Control Systems MK 1 and Torpedo Tube Launchers. Logistics and technical support includes ILS management, training, technical manual updates, in-service engineering, and TOTEM support. The TOMAHAWK Test Missile (TOTEM) is an unboosted, launchable and recoverable encapsulated test missile for use in testing TOMAHAWK compatibility with the Submarine MK 1 Fire Control System and the Torpedo Tube Launcher.

E. Mission Planning Centers (MPC's)

The Mission Planning Centers develop and maintain the software programs which control independently the Land Attack Cruise Missiles. O&M,N costs associated with the MPC's are for software maintenance and upkeep of the centers.

Activity Group: Cruise Missile (cont'd)

11. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout:

	FY 1988	FY 1989	FY 1990	FY 1991
	Actual	Amended Budget Request	Appro- piation Estimate	Budget Request
Cruise Missile Support	104,582	119,208	116,439	131,950
Total	104,582	119,208	116,439	131,950

B. Reconciliation of Increases and Decreases

	Amount
1. FY 1989 Current Estimate	116,439
2. Price Growth	
a. Industrial Fund Rates	(4,119)
b. Other Pricing Adjustments	948
	3,171
3. Program Increases	
a. Other Program Growth in FY 1990	3,996
1) Increase in depot maintenance due to 5 additional recertifications and installations of MODS kits to achieve current missile configuration; increase in platform maintenance due to 16 additional TOMAHAWK platforms; and phased increase in software/hardware maintenance support due to Theater Mission Planning Center upgrades in the Digital Imagery Work Station and the Mission Planning Evaluation Team.	3,996
4. Program Decreases	
a. Other Program Decreases in FY 1990	-8,666
1) Decrease of 1 Operational Test Launch; reduced Nuclear Safety Analysis; reduced In Service Engineering Agent support, software support activity and technical manual updates; and reduced funding due to Depot Maintenance Competitive Savings.	-8,666

Activity Group: Cruise Missile (cont'd)

5. FY 1990 President's Budget Request	115,888	
6. Pricing Adjustments		
a. Industrial Fund Rates	(3,626)	3,626
b. Other Pricing Adjustments	891	
	2,735	
7. Program Increases		14,487
a. Other Program Growth in FY 1991		
1) Increase in depot and capsule launching system maintenance, due to 72 additional recertifications installations of MODS kits to achieve current missile configuration; increase in platform maintenance due to 16 additional TOMAHAWK Platforms in FY 1991 and phased increase in software/hardware maintenance support due to Theater Mission Planning Center upgrades in the Digital Imagery Work Station and the Mission Planning Evaluation Team.	14,487	
8. Program Decreases		-2,051
a. Other Program Decreases in FY 1991		
1) A decrease in In Service Engineering Agent support, software support activity and technical manual updates.	-2,051	
9. FY 1991 President's Budget Request		131,950

Activity Group: Cruise Missile (cont'd)

III. Performance Criteria

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Platform Maintenance	78	103	119	135
Operational Test Launch Flight Test	16	17	16	16
Missile Refurbishments	10	7	7	7
Recertifications	105	151	156	228
Theater Mission Planning Centers	3	3	3	3

IV. Personnel Summary-

Non Applicable

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Maintenance of Real Property
Budget Activity: II - General Purposes Forces

I. Description of Operations Financed.

This program provides maintenance, repair and minor construction of all buildings, structures, grounds and utility systems at major fleet bases and aviation activities to permit assigned forces and tenants to perform their missions.

The major elements of this program are:

- o Facilities Maintenance - finances scheduled, day-to-day recurring maintenance, and emergency service work needed to preserve facilities.
- o Major Repairs - provides major repairs necessary to bring existing facilities into adequate condition to support assigned missions.
- o Minor Construction - finances the erection, installation or assembly of real property facilities; the addition, extension alteration, conversion or replacement of existing real property facilities; the relocation of real property facilities; and the installation of equipment which becomes part of a facility.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1988	FY 1989		FY 1990	FY 1991
	Actual	Amended Pres. Budget	Appropriation	Budget Request	Budget Request
Facilities Maintenance	286,458	263,957	259,921	253,427	267,613
Major Repair Projects	153,925	85,336	85,336	70,764	71,549
Minor Construction	49,435	28,861	28,694	24,268	22,846
Total Activity Group	489,818	378,154	373,951	348,459	362,008

Activity Group:
Maintenance of Real Property (cont'd)

N. Reconciliation of Increases and Decreases:

	Amount
1. FY 1989 Current Estimate	391,655
2. Pricing Adjustments	
A. Annualization of FY 1989 Direct Pay Raises	26,302
1) Classified	(1,177)
2) Wage Board	69
3) Foreign National Direct Hires	731
B. FY 1990 Direct Pay Raises	377
1) Classified	(1,690)
2) Wage Board	87
3) Foreign National Direct Hires	162
C. Stock Fund	1,441
1) Fuel	(72)
2) Non-Fuel	-21
D. Industrial Fund Rates	93
E. Foreign National Indirect Hire	(3,955)
F. Foreign Currency Adjustments	(1,451)
G. Other Pricing Adjustments	(10,353)
	(7,604)
3. Functional Program Transfer	260
A. Transfer In	
1) Intra-Appropriation	
a) Operating and administrative support for the MK-48 Advanced Capability (ADCAP) function at Charleston from BA 7.	(73)
b) Facility Maintenance support for Boone Clinic Little Creek, VA from BA 8.	(187)
4. Program Increases	1,829
A. Other Increases in FY 1990	
1) Increase for Gulf Coast Strategic Homeporting, including 29 civilian personnel end strength.	(1,829)

**Activity Group:
Maintenance of Real Property (Cont'd)**

-71,337

5. Program Decreases

A. One-Time FY 1989 Decreases

1) FY 1989 Foreign National indirect separation liability.

B. Other Decreases in FY 1990

- 1) Savings associated with decisions to convert to contractor performance, or in-house efficiencies resulting from CA studies under OMB Circular A-76.
- 2) Deferral of recurring maintenance and repair efforts and reductions in materials, supplies, and equipment support for planned facility maintenance and repair.
- 3) Deferral of Major Repair Projects to reflect available program resources.
- 4) End strength and funding adjustments based on savings achieved through implementation of Most Efficient Organization (MEO) for those functions which remain in-house as a result of CA competition.
- 5) Deferral of Minor Construction and Physical Security Projects to reflect available program resources.

(-294)

-294

(-71,293)

-762

-35,933

-32,791

-215

-1,592

6. FY 1990 President's Budget Request

348,459

7. Pricing Adjustments

A. Annualization of FY 1990 Direct Pay Raises

1) Classified

2) Wage Board

3) Foreign National Direct Hires

B. FY 1991 Direct Pay Raises

1) Classified

2) Wage Board

3) Foreign National Direct Hires

C. Stock Fund

1) Fuel

2) Non-Fuel

D. Industrialization Fund Rates

E. Foreign National Indirect Hire

F. Foreign Currency Adjustments

G. Other Pricing Adjustments

(1,175)

33

411

731

(2,117)

139

239

1,739

(201)

6

195

(2,392)

(1,078)

(635)

(5,706)

13,304

Activity Group:
Maintenance of Real Property (cont'd)

8. Program Increases	2,389	
A. Annualization of FY 1990 Increases	(2,238)	
1) Continued expansion of Naval Stations on the Gulf Coast related to Strategic Homeporting.	2,238	
151	(151)	
B. One-Time FY 1991 Growth	151	
1) One additional Civilian Personnel work day in FY 1991.		
9. Program Decreases	-2,144	
A. One Time FY 1990 Costs	(-300)	
1) FY 1990 Foreign National indirect separation liability.	-300	
B. Other Program	(-1,844)	
1) Savings associated with decisions to convert to contractor performance, or in-house efficiencies resulting from CA studies under OMB Circular A-76.	-215	
2) Deferral of recurring maintenance and repair efforts and reductions in materials, supplies, and equipment support for planned facility maintenance.	-487	
3) End strength and funding adjustments based on savings achieved through implementation of Most Efficient Organization (MEO) for those functions which remain in-house as a result of CA competition.	-229	
4) Deferral of Minor Construction and Physical Security Projects to reflect available program resources.	-239	
4) Realignment of 21 End Strength to Base Operations.	-674	
10. FY 1991 President's Budget Request	362,008	

III. Performance Criteria.

FY 1988 FY 1989 FY 1990 FY 1991

Maintenance of Real Property

Backlog, Maintenance/Repair (\$000)	745,189	899,263	1,061,064	1,257,426
Total Building (KSF)	135,979	136,974	143,202	146,772

**Activity Group:
Maintenance of Real Property (cont'd)**

IV. Personnel Summary:

End Strength (E/S)

A. Military

Officer
Enlisted

B. Civilian

USDH
FNDH
FNTH

<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>477</u>	<u>538</u>	<u>540</u>	<u>547</u>
30	38	38	38
447	500	502	509
<u>2,305</u>	<u>2,171</u>	<u>1,964</u>	<u>1,893</u>
1,138	1,037	830	759
671	639	639	639
496	495	495	495

Department of the Navy
Operation & Maintenance, Navy

Activity Group: Base Operations
Budget Activity: II - General Purposes Forces

I. Description of Operations Financed.

This program provides the base support services and material required at major fleet bases and air stations to permit assigned forces and tenants to perform their missions.

The major elements of this program are:

C Utility Operations - Includes operating expenses for purchased electricity, electricity generating plants, purchased steam and hot water, heat plants, utility distribution systems, waste systems, air conditioning and refrigeration plants.

C Personnel Operations - Support required for personnel related functions include expenses for:

- Bachelor Housing Operations and Furnishings - provides support for the operation of barracks and the purchase and maintenance of personnel support equipment related to this housing.

- Other Personnel Support - provides for mess halls, sales activities, laundry and dry cleaning facilities. Also funds Station Hospitals, Medical and Dental Clinics, which include direct and indirect health care costs for Health Care Facilities not under the financial control of the Navy Medical Command. Also provides support for Human Goals programs which focus on improving organizational and individual effectiveness and the administrative support of the Alcohol and Drug programs.

- Morale, Welfare and Recreation - provides authorized appropriated fund support for shore based recreation activities.

C Base Operations - Mission - Support for those Base Operations functions which are required in direct support of the mission of the base. For example, Fleet Training Support, Logistics Support, etc. Expenses are included for the following functions:

Activity Group:
Base Operations (cont'd)

- Retail Supply Operations - In addition to standard supply functions, this item includes the procurement, receipt, storage and issue of bulk liquid fuel, including operating aircraft fuel servicing facilities. Additionally, waterfront operations such as handling incoming and outgoing cargo and loading/unloading live ammunition onto and from combatant vessels are included.
- Maintenance of Installation Equipment - provides for maintenance of major shore based equipment including: service and miscellaneous craft, construction equipment (non-deployable), weapons, electronics, electronic engineering, and fleet moorings.
- Other Base Services - provides for the maintenance and operation of vehicles/other transportation equipment, port services (includes navigational assistance to ships, operation of service craft, degaussing operations, and oil spillage cleanup).
- o Base Operations - Ownership - Support required at shore bases regardless of type of mission being performed which must be sustained to have a functioning base. Expenses are included for the following functions:
 - Other Engineering Support - Public Works Department Administration, engineering services, custodial services, refuse/garbage collection and disposal, snow removal, rental and leasing of real property, and fire protection and firefighting for Naval activities and their tenants. The sub-activity group Hazardous Waste Material Handling was consolidated into this sub-activity group and includes personnel, supplies and training associated with the identification and disposal of hazardous wastes.
 - Administration - provides support related to financial/resource management, civilian manpower management, and maintaining military personnel records. The Navy Claims function was transferred from RA 8 into administration in FY 1989.
- Automated Data Processing - provides analysis programming, equipment rental, operations and maintenance, contractual services and supplies.
- Audiovisual - provides supplies and services required for audiovisual support.
- Physical Security - provides shore base physical security.

Activity Group:
Base Operations (cont'd)

1. Financial Summary (Dollars in Thousands) -

A. Sub-Activity Group Breakout:

	FY 1989			FY 1990 Budget Request	FY 1991 Budget Request
	FY 1988 Actual	Amended Pres. Budget	Appro- piation	Current Estimate	
Base Communications	58,601	37,274	36,888	38,830	48,001
Utility Operations	197,112	225,027	222,670	215,653	239,332
Personnel Operations	127,073	127,800	126,968	119,988	136,232
Base Operations, Mission	405,723	442,220	424,168	443,532	497,251
Ownership Operations	552,501	522,669	508,669	590,399	643,535
Total Activity Group	1,341,016	1,354,990	1,319,363	1,408,402	1,564,351

Amount

B. Reconciliation of Increases and Decreases:

1. FY 1989 Current Estimate	1,408,402
2. Pricing Adjustments	97,042
a. Annualization of FY 1989 Direct Pay Raises	(6,731)
1) Classified	3,659
2) Wage Board	1,738
3) Foreign National Direct	1,334
b. FY 1990 Direct Pay Raises	(12,213)
1) Classified	4,818
2) Wage Board	497
3) Foreign National Direct	6,898
c. Stock Fund	(-3,908)
1) Fuel	-3,950
2) Non-Fuel	42
d. Industrial Fund Rates	(8,706)
e. FN Indirect Hire	(6,490)
f. Foreign Currency Adjustments	(46,736)
g. Other Pricing Adjustments	(20,074)

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14,681

3. Functional Program Transfer

a. Transfers In	(16,521)	
1) Intra-Appropriation	14,674	
a) Transfer various Authorized Accounting Activity (AAA) functions:	(2,520)	
(1) AAA function from Budget Activity 8.	137	
(2) AAA functions from Budget Activity 7.	2,383	
b) Transfer of hazardous waste disposal resources from Budget Activity 7, Field Operations, to individual activities to encourage savings by making generators directly responsible for disposal.	(11,443)	
c) Operating and administrative support for MK-48 Advanced Capability (ADCAP) function at Charleston from Budget Activity 7.	(236)	
d) Personal Excellence Program from Budget Activity 9.	(53)	
e) Family Housing Courtesy moves from Budget Activity 7.	(78)	
f) Transfer of Defense Data Network (DDN) resources from Budget Activity 3, Leased Communications to individual users to encourage savings by making users directly responsible for paying for their own DDN usage.	(309)	
2) Inter-Appropriation	1,847	
a) Transfer resources for several MWR activities located at the remote DOD Housing Facility, Novato, CA from the Family Housing Appropriation as recommended by the Naval Audit Service.	(1,847)	
b. Transfers Out	(-1,840)	
1) Intra-Appropriation	-1,655	
a) Supply Reimbursable to Budget Activity 7 Supply Operations.	(-1,129)	

Activity Group:
Base Operations (cont'd)

b) Naval Station Treasure Island Islemart to Budget Activity 7 Supply Operations.	(-152)	
c) NAS Alameda Payroll to Budget Activity 7.	(-264)	
d) Funds to rent commercially leased space realigned to Budget Activity 9, Base Operations Support, for direct payment to the General Services Administration Federal Building Fund.	(-110)	
2) Inter-Appropriation	-185	
a) Transfer to the O&M, Army appropriation to support the Defense Systems Management College, which will oversee the DOD education and training program for the acquisition workforce.	(-185)	
		19,638
4. Program Increases	(16,060)	
a. Annualization of FY 1989 Increases		
1) Increase for Gulf Coast Strategic Homeporting. Includes utilities, engineering services, port services, transportation, bachelor housing and personnel services, and MWR.	16,060 (3,578)	
b. Other Program Growth in FY 1990	838	
1) Increase to fully fund base operations for ROTH Detachment in Amchitka.		
2) Installation and conversion to the consolidated area telephone system (CATS).	1,558	
3) Telecommunication improvements, telex rental, and services, and two-way radio rentals and maintenance.	1,182	
		-26,815
5. Program Decreases	(-8,469)	
a. One-Time FY 1989 Costs	-5,288	
1) Reduction for payment of backlogged claims.		
2) FY 1989 Foreign National Indirect Hire separation liability and retroactive pay.	-3,181 (-18,346)	
b. Other Program Decreases in FY 1990		
1) Reduction in Base Operations programs at all bases, including administrative/ADP services, personnel support, MWR, logistic support to ships and aircraft squadrons, physical security activities, engineering services, custodial		1-2-130

Activity Group:
Base Operations (cont'd)

and refuse collection and disposal services, deferral of service craft overhauls and reduced transportation support.	-17,259	
2) Savings associated with decisions to convert contractor performance or in-house efficiencies resulting from CA studies under OMB circular A-76.	-310	
3) Decrease reflects reduction in energy utilization through energy conservation.	-777	
6. FY 1990 President's Budget Request		1,512,948
7. Pricing Adjustments		56,947
a. Annualization of FY 1990 Direct Pay Raises	(5,940)	
1) Classified	1,968	
2) Wage Board	836	
3) Foreign Nat'l Direct	3,136	
b. FY 1991 Direct Pay Raises	(16,457)	
1) Classified	7,539	
2) Wage Board	753	
3) Foreign Nat'l Direct	8,165	
c. Stock Fund	(2,901)	
1) Fuel	1,871	
2) Non-Fuel	1,030	
d. Industrial Fund Rates	(6,677)	
e. FN Indirect Hire	(6,700)	
f. Foreign Currency Adjustments	(502)	
g. Other Pricing Adjustments	(17,770)	
8. Program Increases		33,706
a. Annualization of FY 90 Increases	(30,572)	
1) Increase for strategic homeporting on the Gulf Coast.	30,572	
b. One-Time FY 1991 Costs	(1,754)	
1) One additional CIVPERS work day.	1,754	
b. Other Program Growth in FY 1991	(1,380)	
1) Increase Base Operations support for new ROTHF sites commencing operations in FY 1991, including Det 2 Chesapeake VA and Det 3 Guam/Tinian.	1,380	
		1-2-131

Activity Group:
Base Operations (cont'd)

-39,250

(-3,009)

9. Program Decreases
a. One-Time FY 1990 Costs

1) FY 1989 Foreign National Indirect Hire separation liability and retroactive pay.

-3,009

(-36,241)

-111

b. Other Program Decreases in FY 1991

-745

1) Reduction in number of claims paid.
2) Decrease reflects reduction in energy utilization through energy conservation.

3) Decrease reflects further general reductions to BOS programs, including administrative/ADP services,

personnel support, MWP, logistic support to ships and aircraft squadrons, physical security activities, engineering services, custodial and refuse collection and disposal services, deferral of service craft overhauls and reduced transportation support.

-18,310

4) Reduction of shore station civilian personnel end strength to reflect resource levels.

-5,677

5) Reduction in supply storage and warehousing operations, including decreased support of fuel facilities operation and maintenance contracts.

-2,505

6) Reduction in equipment maintenance contracts for waterfront and electronics equipment, port and harbor services, and waterfront support.

-7,945

7) End strength and funding adjustments based on savings achieved through implementation of Most Efficient Organization (MEO) for those functions which remain in-house as a result of CA competition.

-247

8) Savings associated with decisions to convert to contractor performance, or in-house efficiencies resulting from CA studies under OMB Circular A-76.

-701

1,564,351

10. FY 1991 Presidents Budget Request

1-2-132

Activity Group:
Base Operations (cont'd)

III. Performance Criteria.

Operations of Utilities

Total Energy Consumed (MBTU's)
Total Non-Energy Consumed (000 Gal)

	FY 1988	FY 1989	FY 1990	FY 1991
Total Energy Consumed (MBTU's)	23,591,450	23,763,668	24,833,033	25,453,858
Total Non-Energy Consumed (000 Gal)	19,734,430	20,282,424	21,440,344	22,122,132

Base Communications

Number of Instruments
Number of Mainlines
Daily Average Msg Traffic

	FY 1988	FY 1989	FY 1990	FY 1991
Number of Instruments	101,105	100,602	118,514	119,378
Number of Mainlines	67,544	68,184	80,610	81,039
Daily Average Msg Traffic	24,079	24,642	25,698	26,006

Personnel Operations

Bachelor Housing (\$000)
No. of Officer Quarters
No. of Enlisted Quarters
Other Personnel Support (\$000)
Population Served, Total
(Military, E/S)
(Civ/Dep, E/S)
Morale, Welfare & Recreation (\$000)
Population Served, Total
(Military, E/S)
(Civ/Dep, E/S)

	FY 1988	FY 1989	FY 1990	FY 1991
Bachelor Housing (\$000)	29,200	30,241	33,034	33,455
No. of Officer Quarters	10,209	10,329	10,746	10,874
No. of Enlisted Quarters	91,510	85,824	87,473	87,613
Other Personnel Support (\$000)	63,061	71,529	77,245	80,586
Population Served, Total	954,667	957,551	960,961	968,036
(Military, E/S)	500,024	501,686	504,524	510,429
(Civ/Dep, E/S)	454,643	455,865	456,437	457,607
Morale, Welfare & Recreation (\$000)	34,812	18,218	19,047	22,191
Population Served, Total	1,085,380	1,141,206	1,166,743	1,217,346
(Military, E/S)	442,394	474,008	489,492	519,237
(Civ/Dep, E/S)	642,986	667,198	677,251	698,109

Base Operations, Mission

Retail Supply Operations (\$000)
Line Items Carried
Receipts (000)
Issues (000)
Maintenance of Installation Equip (\$000)
Other Base Services (\$000)
No. of Motor Vehicles, Total
(Owned)
(Leased)

	FY 1988	FY 1989	FY 1990	FY 1991
Retail Supply Operations (\$000)	142,285	146,395	157,671	160,045
Line Items Carried	3,304	3,318	3,337	3,348
Receipts (000)	4,205	4,345	4,457	4,477
Issues (000)	6,459	6,662	6,762	6,801
Maintenance of Installation Equip (\$000)	66,212	72,557	85,960	86,622
Other Base Services (\$000)	197,232	224,580	238,461	250,584
No. of Motor Vehicles, Total	12,897	12,482	12,403	12,428
(Owned)	9,561	9,042	8,964	8,989
(Leased)	3,336	3,440	3,439	3,439

Ownership Operations

Other Engineering Support (\$000)
Administration (\$000)
Number of Bases, Total
(CONUS)
(Overseas)

	FY 1988	FY 1989	FY 1990	FY 1991
Other Engineering Support (\$000)	209,610	220,548	239,453	246,289
Administration (\$000)	269,466	283,379	291,449	294,162
Number of Bases, Total	91	91	96	96
(CONUS)	39	39	44	44
(Overseas)	52	52	52	52

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Activity Group:
Base Operations (cont'd)

FY 1988 FY 1989 FY 1990 FY 1991

III. Performance Criteria (Cont'd)

Navy Claims:

Personnel Claims

31,929 47,935 39,882 39,687

Tort Claims

3,102 4,462 3,782 3,782

Admiralty Claims

31 114 85 85

Other Miscellaneous Claims

14 22 18 18

IV. Personnel Summary:
End Strength (E/S)

A. Military

Officer
Enlisted

FY 1988 FY 1989 FY 1990 FY 1991

28,410 29,075 29,214 29,246

2,071 2,149 2,225 2,227

26,339 26,926 26,989 27,019

B. Civilian

21,937 21,465 21,801 21,274

USDH

14,654 14,646 15,027 14,521

FNDA

4,523 3,771 3,726 3,705

FNIA

2,760 3,048 3,048 3,048

Department of the Navy
Operation & Maintenance, Navy

Foreign Currency
2 - General Purpose Forces

Activity Group:
Budget Activity:

I. Description of Operations Financed.

This program provides resources for foreign currency exchange rate fluctuations. Operations financed include the cost of foreign currency gains or losses against the U.S. dollar. The use of this fund has been instrumental in permitting an orderly execution of the budgeted program and in preventing turbulence caused by unbudgeted increases in value of foreign currencies.

II. Financial Summary (Dollars in Thousands) -

A. Sub-Activity Group Breakout.

	FY 1989			FY 1990		FY 1991	
	FY 1988 Actual	Amended Budget Request	Appro- priation	Current Estimate	Budget Request	Budget Request	Budget Request
Foreign Currency	133,800	0	0	68,000	0	0	0
Total Activity Group	133,800	0	0	68,000	0	0	0
					<u>Amount</u>		
					68,000		

B. Reconciliation of Increases and Decreases:

1. FY 1989 Current Estimate

III. Performance Criteria

Non Applicable

IV. Personnel Summary

Non Applicable

Summary of Requirements by Activity Group

	FY 1988				FY 1989				FY 1990				FY 1991				B-A-A-	
	Personnel E/S		O&M,N		Personnel E/S		O&M,N		Personnel E/S		O&M,N		Personnel E/S		O&M,N		BA-	Fy/yr
	Mil	Civ	Funding		Mil	Civ	Funding		Mil	Civ	Funding		Mil	Civ	Funding			
Security Program	9,442	4,124	382,677		9,037	4,573	409,366		9,061	4,739	476,256		9,071	4,807	500,488		1-3-9	
Naval Communications	7,144	1,821	381,674		7,536	1,707	373,296		7,455	1,719	362,508		7,376	1,690	426,775			
Leased Communications	-	-	158,950		-	-	178,027		-	-	144,146		-	-	202,194		1-3-23	
Worldwide Military																		
Command & Control	414	117	20,500		438	124	20,633		408	125	22,149		398	125	24,261		1-3-22	
Night. Headquarters	81	162	7,003		77	165	7,436		76	165	7,299		76	165	7,523		1-3-29	
Other Communications	6,649	1,542	195,221		7,021	1,418	167,200		6,971	1,429	188,914		6,902	1,400	192,791		1-3-32	
Specialized Support	3,019	2,737	282,955		3,288	2,638	296,208		3,113	2,754	326,518		3,031	2,758	351,742			
Environmental																		
Prediction Support	1,791	1,054	152,331		1,933	1,018	166,276		1,852	1,150	190,483		1,841	1,171	214,177		1-3-55	
Naval Observatory	7	122	10,249		11	131	10,791		19	131	11,528		30	131	11,919		1-3-80	
Maintenance of																		
Real Property	55	314	24,718		63	284	25,686		58	265	27,785		58	248	28,252		1-3-88	
Base Operations	1,166	1,247	95,657		1,221	1,205	93,455		1,184	1,208	96,722		1,162	1,208	97,394		1-3-93	
TOTAL BA 3	18,605	8,682	1,047,296		19,861	8,918	1,078,870		19,629	9,212	1,165,282		19,538	9,255	1,279,005			

Department of the Navy
Operation & Maintenance, Navy

Budget Activity: III - Intelligence and Communications

I. Description of Operations Financed.

This budget activity provides support to the Strategic Forces and General Purpose Forces program in the area of cryptology, general defense intelligence, foreign counterintelligence, investigative service, communications, and other specialized support such as Navy oceanographic program and base operations. All available audit savings have been incorporated into the following budget estimates.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	Amended Pres. Budget	FY 1989 Appro- priation	Current Estimate	FY 1990 Budget Request	FY 1991 Budget Request
Security Program	382,667	405,858	403,948	409,366	476,256	500,488
Naval Communications	381,674	387,343	376,627	373,296	362,508	426,775
Specialized Support	282,955	294,726	285,138	296,208	326,518	351,742
Total, Budget Activity	1,047,296	1,087,927	1,065,713	1,078,870	1,165,282	1,279,005

Budget Activity: III - Intelligence and Communications (continued)

B. Reconciliation of Increases and Decreases.

1. FY 1989 President's Budget Request	\$1,087,911
2. Congressional Adjustments	-27,211
A. Inventory Management	(-1,282)
B. ADP Systems	(-2,831)
C. Morale, Welfare, Recreation Support	(-1,000)
D. Asset Capitalization	(-4,055)
E. ADP Systems Maintenance	(-1,665)
F. Command, Control, Communications	(-2,460)
G. Classified Programs	(-1,648)
H. Ship Operations	(-302)
I. Fleet Satellite Communications	(-1,500)
J. Fuel Savings	(-2,689)
K. A-76 Savings	(-2,000)
L. Outfitting	(-782)
3. FY 1989 Appropriation	\$1,065,713
4. Pricing Adjustments	6,600
A. Incremental 2.1% FY 1989 Pay Raise	(4,669)
(1) Classified	4,471
(2) Wage Board	198
B. Other	(1,936)

Budget Activity: III - Intelligence and Communications (continued)

R. Reconciliation of Increases and Decreases (continued)

24,536

5. Other Increases

(24,536)

- A. Program Increases
 - (1) Security Program
 - (2) Leased Communications
 - (3) Worldwide Military Command & Control System
 - (4) Management Headquarters
 - (5) Other Communications
 - (6) Environmental/Prediction Support
 - (7) Naval Observatory
 - (8) Base Operations
 - (9) Maintenance of Real Property

4,764
1,000
1,938
639
4,235
4,720
906
1,750
4,584

-17,984

6. Other Decreases

(-17,984)

- A. Program Decreases
 - (1) Security Program
 - (2) Worldwide Military Command & Control System
 - (3) Other Communications
 - (4) Environmental/Prediction Support
 - (5) Maintenance of Real Property
 - (6) Base Operations

-1,593
-2,845
-8,742
-3,088
-360
-1,356

\$1,078,870

7. FY 1989 Current Estimate

44,248

8. Pricing Adjustments

(3,092)

- A. Annualization of FY 1989 Direct Pay Raises
 - (1) Classified
 - (2) Wage Board
 - (3) Foreign National Direct

2,613
382
97

Budget Activity: III - Intelligence and Communications (continued)

B. Reconciliation of Increases and Decreases (continued)

B. FY 1990 Direct Pay Raise	
(1) Classified	(5,144)
(2) Wage Board	4,273
(3) Foreign National Direct	270
C. Stock Fund	601
(1) Fuel	(-1,227)
(2) Non-Fuel	-926
D. Industrial Fund Rates	-301
E. FN Indirect	(13,419)
F. Foreign Currency Adjustments	(549)
G. Other Pricing Adjustments	(8,043)
	(15,228)

-1,656

9. Functional Program Transfers

A. Transfers In	(17,385)
(1) Intra-Appropriation	16,885
(2) Inter-Appropriation	500
B. Transfers Out	(-19,011)
(1) Intra-Appropriation	-16,543
(2) Inter-Appropriation	-2,468

10. Program Increases

101,603

A. Annualization of FY 1989 Increases	(8,424)
(1) Security Program	5,007
(2) Environmental/Prediction Support	3,289
(3) Naval Observatory	128
B. One-Time FY 1990 Costs	(1,918)
(1) Worldwide Military Command & Control System	38
(2) Environmental/Prediction Support	1,838
(3) Naval Observatory	42

Budget Activity: III - Intelligence and Communications (continued)

B. Reconciliation of Increases and Decreases (continued)

C. Other Program Growth in FY 1990	
(1) Security Program	(91,261)
(2) Leased Communications	41,403
(3) Worldwide Military Command & Control System	7,439
(4) Other Communications	2,150
(5) Environmental/Prediction Support	24,325
(6) Naval Observatory	12,691
(7) Maintenance of Real Property	244
(8) Base Operations	1,970
	1,039
	-57,813
11. Program Decreases	
A. One-Time FY 1989 Costs	
(1) Leased Communications	(-3,375)
(2) Other Communications	-1,035
(3) Environmental/Prediction Support	-195
(4) Maintenance of Real Property	-1,525
(5) Other Program Decreases in FY 1990	-820
B. Security Program	(-54,238)
(1) Leased Communications	-10,285
(2) Worldwide Military Command & Control System	-29,556
(3) Management Headquarters	-1,346
(4) Other Communications	-304
(5) Environmental/Prediction Support	-7,655
(6) Maintenance of Real Property	-102
(7) Base Operations	-1,032
(8) Base Operations	-3,958
	\$1,165,282

12. FY 1990 President's Budget Estimate

Budget Activity: III - Intelligence and Communications (continued)

B. Reconciliation of Increases and Decreases (continued)

37,18

13. Pricing Adjustments

A. Annualization of FY 1990 Direct Pay Raises	
(1) Classified	(1,923)
(2) Wage Board	1,587
(3) Foreign National Direct	229
B. FY 1991 Direct Pay Raise	107
(1) Classified	(7,829)
(2) Wage Board	6,730
(3) Foreign National Direct	450
C. Stock Fund	649
(1) Fuel	(992)
(2) Non-Fuel	335
D. Industrial Fund Rates	657
E. FN Indirect	(11,388)
F. Other Pricing Adjustments	(606)
	(14,980)

100

14. Functional Program Transfers

A. Transfers In	(100)
(1) Inter-Appropriation	100

107,31

15. Program Increases

A. Annualization of FY 1990 Increases	(10,849)
(1) Security Program	1,620
(2) Leased Communications	414
(3) Worldwide Military Command & Control System	203
(4) Other Communications	1,592
(5) Environmental/Prediction Support	7,020
B. One-Time FY 1991 Costs	(326)
(1) Security Program	26
(2) Worldwide Military Command & Control System	21
(3) Environmental/Prediction Support	279

Budget Activity: III - Intelligence and Communications (continued)

B. Reconciliation of Increases and Decreases (continued)

C. Other Program Growth in FY 1991

- (1) Security Program
- (2) Leased Communications
- (3) Worldwide Military Command & Control System
- (4) Management Headquarters
- (5) Other Communications
- (6) Environmental/Prediction Support
- (7) Naval Observatory
- (8) Maintenance of Real Property
- (9) Base Operations

(96,556)
14,229
53,519
3,202
25
13,398
11,816
117
31
219

16. Program Decreases

-31,826

A. Annualization of FY 1990 Decreases

- (1) Security Program
- (2) Leased Communications

(-264)
-64
-200

B. One-Time FY 1990 Costs

- (1) Worldwide Military Command & Control System
- (2) Environmental/Prediction Support
- (3) Naval Observatory

(-1,986)
-39
-1,300
-47

C. Other Program Decreases in FY 1991

- (1) Security Program
- (2) Leased Communications
- (3) Worldwide Military Command & Control System
- (4) Other Communications
- (5) Environmental/Prediction Support
- (6) Maintenance of Real Property
- (7) Base Operations

(-29,576)
-4,674
-1,100
-1,980
-16,544
-1,616
-585
-3,077

\$1,279,005

17. FY 1991 President's Budget Estimate

OSM,N
3-8

Department of the Navy
Operation and Maintenance, Navy
Exhibit OP-5

Activity Group: Security Program
Budget Activity: III - Intelligence & Communications

I. Description of Operations Financed.

Details of this program are classified and provided separately.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	Amended Pres. Budget	FY 1989	FY 1990	FY 1991
	<u>Actual</u>	<u>Budget</u>	<u>Appro- priation</u>	<u>Budget Request</u>	<u>Budget Request</u>
Security Program	382,667	405,858	403,948	476,256	500,488
Total	382,667	405,858	403,948	476,256	500,488

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate

2. Pricing Adjustments

A. Annualization of FY 1989 Direct Pay Raises

(1) Classified

(2) Wage Board

(3) Foreign National Direct

\$409,316

14,833

(1,832)

1,727

104

1

O&M,N

3-9

Activity Group: Security Program (continued)

N. Reconciliation of Increases and Decreases (continued)

E. FY 1990 Direct Pay Raise		
(1) Classified	(2,681)	
(2) Wage Board	2,514	
(3) Foreign National Direct	134	
C. Stock Fund	33	
(1) Fuel	(-405)	
(2) Non-Fuel	-183	
D. Industrial Fund Rates	-222	
E. FW Indirect Hire	(570)	
F. Foreign Currency Adjustments	(-38)	
G. Other Pricing Adjustments	(2,854)	
	(7,389)	
3. Functional Program Transfers		15,882
A. Transfers In	(16,561)	
(1) Intra-Appropriation	16,061	
(2) Inter-Appropriation	500	
B. Transfers Out	(-679)	
(1) Inter-Appropriation	-679	
4. Program Increases		46,410
A. Annualization of FY 1989 Increases	(5,007)	
B. Other Program Growth in FY 1990	(41,403)	
5. Program Decreases		-10,285
A. Other Program Decreases in FY 1990	(-10,285)	
6. FY 1990 President's Budget Request		\$476,256

Activity Group: Security Program (continued)

B. Reconciliation of Increases and Decreases (continued)

7. Pricing Adjustments		13,055
A. Annualization of FY 1990 Direct Pay Raises		
(1) Classified	(961)	
(2) Wage Board	891	
(3) Foreign National Direct	64	
B. FY 1991 Direct Pay Raise	6	
(1) Classified	(4,203)	
(2) Wage Board	3,917	
(3) Foreign National Direct	261	
C. Stock Fund	25	
(1) Fuel	(362)	
(2) Non-Fuel	64	
D. Industrial Fund Rates	298	
E. FN Indirect Hire	(492)	
F. Other Pricing Adjustments	(-79)	
	(7,156)	
8. Program Increases		15,875
A. Annualization of FY 1990 Increases	(1,620)	
B. One-Time FY 1991 Costs	(26)	
C. Other Program Growth in FY 1991	(14,229)	
9. Program Decreases		-4,778
A. Annualization of FY 1990 Decreases	(-64)	
B. Other Program Decreases in FY 1991	(-4,674)	
10. FY 1991 President's Budget Request		\$500,448

Activity Group: Security Program (continued)

III. Performance Criteria.

Details of this program are classified and provided separately.

IV. Persornel Summary.

End Strength (E/S)

A. Military

Officer
Enlisted

B. Civilian

USDH
FNDH
FNIH

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>8,442</u>	<u>9,037</u>	<u>9,061</u>	<u>9,071</u>
	913	1,034	1,046	1,052
	7,529	8,003	8,015	8,019
	<u>4,124</u>	<u>4,573</u>	<u>4,739</u>	<u>4,807</u>
	4,014	4,457	4,629	4,697
	54	57	56	56
	56	59	54	54

Department of the Navy
Operation and Maintenance, Navy
Exhibit OP-5

Activity Group: Leased Communications
Budget Activity: III - Intelligence & Communications

I. Description of Operations Financed.

This activity group provides for the continuing financial support for leasing, acquisition and implementation of communications services and related systems and facilities. Approved telecommunications requirements are implemented in response to tasking from designated, validating authorities. With minor exceptions, all requirements are first reviewed by the Naval Telecommunications Command and then considered for approval by the appropriate authority. Implementation is accomplished in the most cost-effective manner possible. The submitted requirements are analyzed, evaluated and necessary amplifying information obtained as follows: ensure that requestor has properly stated the requirement; review Navy and DOD data bases and coordinate to determine the availability of uncommitted resources; ascertain status of any planned facilities which will become available within the required operational time frame; prepare recommendations, as necessary, leading to validation and subsequent programming and budgeting. All circuits, both leased and government-owned, are under periodic review with the requiring activities to determine continued need.

In FY 1990, responsibility for funding of the Defense Data Network (DDN) is transferred out of this program to individual users to encourage savings by making users directly responsible for paying for their own DDN usage. Funding provided for LEASAT through FY 1987 covers the cost of LEASAT service through FY 1990. An FY 1991 increase provides for continued LEASAT service per contract option.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	Amended Pres. Budget	FY 1989 Appropriation	Current Estimate	FY 1990 Budget Request	FY 1991 Budget Request
Leased Communications	158,950	177,040	177,027	178,027	144,146	202,194
Total	158,950	177,040	177,027	178,027	144,146	202,194

O&M,N
3-13

Activity Group: Leased Communications (continued)

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate	\$178,027
2. Pricing Adjustments	6,373
A. Industrial Fund	(5,749)
B. Other Pricing Adjustments	(624)
3. Functional Program Transfers	-17,102
A. Transfers Out	(-17,102)
(1) Intra-Appropriation	-16,531
(a) DDN Decentralization	(-16,531)
(2) Inter-Appropriation	-571
(b) DDN Decentralization	(-571)
4. Program Increases	7,439
A. Other Program Growth in FY 1990	(7,439)
(1) LDMX/NAVCOMPEAPS funding supports leased maintenance of 1100 FEP Upgrades at NAVCAMSLANT, and 1100 CSRF hardware at NAVCAMSMED.	1,142
(2) TRS Replacement funding supports Technical Assistance, Maintenance Support Management, and Depot Level Repair of AN/FSC-178(V) torn tape operations at NAVCOMSTAS Greece, Spain, Japan and Philippines.	149
(3) NAMRADS funding supports full maintenance of systems scheduled for installation at Crystal Plaza during FY 1989.	614

Activity Group: Leased Communications (continued)

C. Reconciliation of Increases and Decreases (continued)

213

(4) Strategic Homeporting (SHP) funding provides leased maintenance of SHP sites. SHP sites will make telecommunications available to ships to maintain communications guard while in port.

357

(5) Secure Terminal Unit (STU-III) is designed to protect all classified and sensitive communications within the government. The STU-III will replace all existing STU-II, AUTOSEVOCOM, wideband and narrowband systems.

9

(6) Increased leased line support of NMCCS until WIS comes on line.

355

(7) Defense System Network (DSN) funding supports expansion of present system to accommodate increased number of users and CINCPACNAV requirements.

4,600

(8) DCS Long Haul Communications increase supports pilot program to realign responsibility/administration of certain segments of the Defense Communications System (DCS) into the DCS Industrial Fund.

-30,591

5. Program Decreases

(-1,035)

A. One-Time FY 1989 Costs

1,035

(1) Decrease for Gapfiller Communications Satellite Support

O&M,N
3-15

Activity Group: Leased Communications (continued)

C. Reconciliation of Increases and Decreases (continued)

B. Other Program Decreases in FY 1990	(-29,556)
(1) AUTOVON fund reduction is due to the transfer of 626 two-way CONUS AUTOVON circuits and 314 in-only circuits to DCTN during FY 1989; the resizing of existing locations on DCTN Level 1, and the transfer of AUTOVON circuits in Oahu to the DSN/OTS Network.	-5,100
(2) Savings associated with Defense Data Network Decentralization.	-13,501
(3) HF REGENCY NET program phase out.	-4
(4) PROTO Connectivity program phase out.	-52
(5) Reduction to funding available for AUTOVON, AUTODIN and Other Leased Services as a result of PCM-90 decreases.	-1,577
(6) Disconnection of leased communications circuits identified as underutilized/duplicative by the Inspector General.	-3,300
(7) Decrease in scheduled payment for LEASAT contract services.	-22

Activity Group: Leased Communications (continued)

C. Reconciliation of Increases and Decreases (continued)

6. FY 1990 President's Budget Request		\$144,146
7. Pricing Adjustments		5,415
A. Industrial Fund Rates	(4,815)	
B. Other Pricing Adjustments	(600)	
8. Program Increases		53,933
A. Annualization of FY 1990 Program Increases	(414)	
(1) Strategic Homeporting leased maintenance.	127	
(2) LDMX/NAVCOMPARS leased maintenance support of 70/45 Upgrades; 1100 FEP Upgrade and 1100 CSRE hardware.	271	
(3) AN/FGC-178(V) torn tape operations at Greece, Spain, Japan, and Philippines.	16	
B. Other Program Growth in FY 1991	(53,519)	
(1) AUTOMATION (RATS) - Army intends to extend the current tri-service Remote Automated Terminals (RATS) acquisition contract with Astronautics Corp. The new Follow-on RATS maintenance contract will commence 1 Oct 1988.	342	
(2) Other Leased Services - Leased maintenance of additional Strategic Homeporting (SHP) sites.	684	

Activity Group: Leased Communications (continued)

C. Reconciliation of Increases and Decreases (continued)

(3) Washington Area Wideband System (WAWS) funding supports Navy WAWS-5C activation requirement.	300
(4) Funding provided in previous fiscal years covers cost of LEASAT service only through FY 1990. Increase provides for continued LEASAT service from 4 orbital positions in FY 1991 per contract option.	52,193
	-1,300
9. Program Decreases	
A. Annualization of FY 1990 Decreases	(-200)
(1) Disconnection of leased circuits identified as underutilized/duplicative by the IG.	-200
B. Other Program Decreases in FY 1991	(-1,100)
(1) Reduction to the DCS Long Haul Communications Pilot Program withdraws start-up funding applicable in FY 1990 only.	-1,100
	\$202,194

10. FY 1991 President's Budget Request

III. Performance Criteria:

1. AUTOVON

<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
64,526	77,798	71,960	75,007

Access to and use of the unsecure direct dialing service worldwide through the system of government-owned and leased automatic switching facilities of the DoD. Some of these facilities are used in support of the transmission media required by the Automatic Secure Voice Network (AUTOSEVOCOM).

Activity Group: Leased Communications (continued)

III. Performance Criteria (continued)

2. AUTODIN 18,385 19,205 17,098 17,679

Access to and use of the single, integrated, worldwide high speed, computer-controlled, general purpose secure communications network of the DoD.

3. AUTOSEVOCOM 2,437 2,514 2,605 2,694

Access to and use of the singly approved worldwide secure voice assets of DoD.

4. DEFENSE DATA NETWORK 27,210 29,540 0 0

Provides worldwide survivable and secure packet switching capability to services/agencies computer networks. The DDN provides subscribers with interactive query/response and bulk transfer capabilities, plus formal message service, electronic mail and teleconferencing services. The DDN will support the AUTODIN community and follow-on system.

5. CINCPAC VOICE ALERT NET 1,756 1,834 1,900 1,965

A dedicated voice alert network in support of the Commander in Chief Pacific (CINCPAC). The facilities are available for use by the component commands as common user voice circuits subject to preemption by CINCPAC.

6. NTS WIDEBAND LEASES 1,238 1,294 1,341 1,387

Leased wideband channels from which additional narrowband channels are derived in providing transmission media for the Defense Communications System and the Naval Telecommunications Systems.

Activity Group: Leased Communications (continued)

III. Performance Criteria (continued)

7. ENVIRONMENTAL DATA 4,097 4,279 4,426 4,576

These funds cover circuitry used to disseminate environmental data to the operating forces of the Navy and includes the following programs:

Navy Environmental Data Network
Geostationary Operational Environmental Satellite
Continental Meteorological Data Systems
Civil & National Oceanic & Atmospheric Administration Weather Services

8. VERDIN 833 870 901 932

Provides funds to finance interconnecting leased data facilities which permit Submarine Force Commander to use information from very low frequency (VLF) and low frequency (LF) transmitters.

9. ASWCCCS 826 862 893 923

Anti-Submarine Warfare Command, Control & Communications Systems (ASWCCCS) leased communications funds are used to finance a system of leased and government-owned circuits which permit ASW Force Commanders to command and control forces. ASWCCCS provides communications between the ASW Force Commanders and other commands.

10. AUTOMATION 15,886 16,565 19,036 20,239

These funds finance a series of automated message exchange terminals, their remote access equipment, supporting access lines and interface devices.

11. COMMERCIAL REFUEL 1,698 1,772 1,833 1,895

Funds are required to cover the cost of delivery of messages by domestic and inter-nation common carriers as required for the conduct of official government business.

Activity Group: Leased Communications (continued)

III. Performance Criteria (continued)

12. <u>OTHER LEASED SERVICES</u>	18,614	19,875	21,535	22,076

These funds are for other approved telecommunications circuitry and services such as: services for the Chief of Naval Operations and Commandant of the Marine Corps; circuitry necessary for the execution of station missions, tasks and functions; circuitry in support of personnel accounting functions of the Chief of Navy Personnel; communication system interfacing intelligence and operational components of the fleet; communication links between major commands and the National Command Authority; miscellaneous support programs not otherwise categorized.

13. <u>LEASAT COMMUNICATIONS</u>	1,474	1,619	618	52,821

LEASAT provides effective, reliable and survivable communications links among Navy Mobile forces and between these forces and command elements ashore.

IV. Personnel Summary

N/A

Department of the Navy
Operation and Maintenance, Navy
Exhibit OP-5

Activity Group: Worldwide Military Command and Control System (WMMCCS)
Budget Activity: III - Intelligence & Communications

I. Description of Operations Financed.

The Worldwide Military Command and Control System (WMMCCS) offers the means for command and control of U.S. Military Forces. The system provides rapid, reliable and secure Automatic Data Processing (ADP) systems at and between WMMCCS nodes throughout the world. Resources for this program support WMMCCS Engineering and Installation, WMMCCS Tactical Software Development and WMMCCS Station Operations. The WMMCCS Engineering and Installation program provides funds for engineering installation plans and installation of all WMMCCS ADP and associated communications support equipment. WMMCCS Tactical software Development provides for design, development, maintenance and technical support of standard WMMCCS applications systems computer programs. The major functions of WMMCCS Station Operations are directed toward operation and maintenance of Automatic Data Processing Equipment (ADPE) to support Navy command authorities and subordinate commanders in carrying out command and control functional tasks. Included are monitoring current situations including the status of U.S. and non-U.S. forces, responding to warning and threat assessments, employing forces and executing operations plans, performing attack strike damage assessment, reconstituting and redirecting forces, and terminating hostilities and active operations.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1988 Actual	FY 1989			FY 1990		FY 1991	
		Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request
Station Operations	17,604	17,492	16,466	16,659	18,141	18,896	18,896	18,896
Engineering & Installation	2,288	2,601	2,506	2,508	3,283	2,926	2,926	2,926
Tactical Software	608	2,531	2,475	1,466	725	2,445	2,445	2,445
Total	20,500	22,624	21,447	20,633	22,149	24,267	24,267	24,267

O&M,N
3-22

Activity Group: Worldwide Military Command and Control System (WMMCCS) (continued)

C. Reconciliation of Increases and Decreases.

\$20,633

1. FY 1989 Current Estimate

6.1

2. Pricing Adjustments

A. Annualization of FY 1989 Direct Pay Raise	(48)
(1) Classified	48
B. FY 1990 Direct Pay Raise	(90)
(1) Classified	89
(2) Wage Board	1
C. Stock Fund	(1)
(1) Non-fuel	1
D. Industrial Fund Rates	(6)
E. Foreign Currency Adjustments	(59)
F. Other Pricing Adjustments	(470)

2,103

3. Program Increases

(38)

A. One-time FY 1990 Costs

34

(1) Air conditioning unit replacement

4

(2) WIS supplies

(2,150)

B. Other Program Growth in FY 1990

431

(1) Station Operations Increase for DPS-8 mainframe hardware in support of the Navy Transaction Processing Executive (NTPE) and the Navy WMMCCS Software Standardization (NWSS) and software licensing fees.

Activity Group: Worldwide Military Command and Control System (WMCCS) (continued)

C. Reconciliation of Increases and Decreases (continued)

(2) Engineering and Installation increase for WIS engineering and associated costs for site preparation and installation of Block A equipment at USCINCLANT, USCINCPAC and CINCUSNAVEUR, CINCPACFLT and CINCUSNAVEUR.	697	
(3) Increase for hardware maintenance of existing WMCCS ADP equipment and new WIS workstations.	1,022	
4. Program Decreases		-1,346
A. Other Program Decreases in FY 1990		(-1,346)
(1) Decrease reflects eight less Permanent Change of Station moves in FY 1990.	-294	
(2) Decrease in Station Operations expenses as a result of delay in full implementation of WIS at CNO sites.	-193	
(3) Realignment of a portion of Tactical Software funding to the BA-2, Navy Command and Control (NCC) Program. Review of actual work efforts being performed indicates this portion of the effort is more appropriate to NCC funding.	-495	
(4) Decrease in Tactical Software contracted software maintenance support subsequent to delay in WIS implementation.	-293	
(5) Reduction of one work year to provide additional support for contract maintenance.	-58	

Activity Group: Worldwide Military Command and Control System (WMCSS) (continued)

C. Reconciliation of Increases and Decreases (continued)

(6) Reduction in rents due to equipment rental converting to ownership. incremental FY 1989 pay raise.	-13	
5. FY 1990 President's Budget Request		\$22,111
6. Pricing Adjustments		611
A. Annualization of FY 1990 Direct Pay Raise	(30)	
(1) Classified	30	
B. FY 1991 Direct Pay Raise	(129)	
(1) Classified	127	
(2) Wage Board	2	
C. Stock Fund	(6)	
(1) Non-Fuel	6	
D. Industrial Fund Rates	(3)	
E. Other Pricing Adjustments	(443)	
7. Functional Program Transfers		100
A. Transfers in	(100)	

- (1) Inter-Appropriation
- (a) Transfer of resources from other appropriations and accounts to reflect the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of compromise to the acquisition procurement process. Recent examinations by the Naval Investigative Service and by the Navy Inspector General have shown that excessive contractor involvement contains the potential for disclosure of sensitive information and improper preparation of specifications or processing of procurement documentation. Civilian personnel workyears and end strength are increased 1 and 1 respectively.

Activity Group: Worldwide Military Command and Control System (WMCCS) (continued)

C. Reconciliation of Increases and Decreases (continued)

3,426

8. Program Increases

(203)

A. Annualization of FY 1990 Increases

203

- (1) Increase to full year maintenance for WIS hardware.

(21)

B. One-time FY 1991 Costs

21

- (1) One additional workday of civilian employment in FY 1991.

(3,202)

C. Other Program Growth in FY 1991

1,706

- (1) WMCCS Tactical Software - Increased effort for WIS conversion, installation and maintenance Increase for modifications, coding, testing and documenting changes in Navy WMCCS and standardized releases. Software packages are required for WMCCS sites at USCINCPAC, USCINCLANT, CINCSNAVEUR and Navy Command Center.

1,380

(2) WIS Modernization Efforts:

Block A provides the local area network (LAN) with modern workstations in Block A1; and the Automated Message Handling (AMH) system in Block A2. These form the basic foundation for orderly future enhancements. Block B builds onto Block A by fielding a standard data base management system and a joint message processing environment which will eventually replace the current WMCCS standard ADPE. The final increment of JCPES will be implemented on Block B. Block C will fulfill the remaining WIS strategic requirements not accomplished by Blocks A and B.

Activity Group: Worldwide Military Command and Control System (WMMCCS) (continued)

C. Reconciliation of Increases and Decreases (continued)

(3) Increase for hardware maintenance of existing WMMCCS ADP equipment and new WIS workstations.	116	
		-2,019
9. Program Decreases		
A. One-time FY 1990 Costs	(-39)	
(1) Air conditioning unit replacement	-35	
(2) WIS Supplies	-4	
B. Other Program Decreases in FY 1991	(-1,980)	
(1) Reduction in licensing fees, maintenance/support of hardware and proprietary system software maintenance due to budget constraints.	-589	
(2) Reduction to WMMCCS ADP operations and maintenance as WIS becomes operational in FY 1991.	-836	
(3) Engineering and Installation - decrease in engineering and associated costs and site preparation and installation costs as WIS is implemented.	-555	
10. FY 1991 President's Budget Request		\$24,261

Activity Group: Worldwide Military Command and Control System (WMCCS) (continued)

III. Performance Criteria

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Number of Installation Sites	16	16	18	17
Number of Installations	16	16	18	17
Contractor Workyears	17	15	22	17
Number of Terminals Supported	887	1,129	1,268	1,428
Number of Remote Sites/				
Terminals at Remote Sites	121/389	126/388	137/423	139/596
Number of Jobs	1,759,843	1,814,139	1,859,241	1,992,777
Number of Exercises	63	69	69	69

IV. Personnel Summary.

End Strength (E/S)

A. Military

Officer
Enlisted

B. Civilian

USDK

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	414	438	408	398
	64	61	55	52
	350	377	353	346
	117	124	125	125
	117	124	125	125

DEPARTMENT OF THE NAVY
OPERATION AND MAINTENANCE, NAVY
EXHIBIT OP-05

Activity Group: Management Headquarters
Budget Activity: III - Intelligence & Communications

I. Description of Operations Financed:

The FY 1990 through FY 1991 funding level will provide necessary resources to support 165 civilians and 76 military personnel. Personnel ensure that funding, manpower, and communication systems are properly provided to accomplish assigned tasking from CNO, Fleet Commanders and other governmental bodies for whom the Navy provides communications services.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1989				FY 1990	FY 1991
	FY 1988	Amended	Pres.	Appropriation	Budget	Budget
	Actual	Budget			Request	Request
Telecommunications						
Headquarters	7,003	6,700		6,700	7,299	7,523
Total	7,003	6,700		6,700	7,299	7,523

Activity Group: Management Headquarters (continued)

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$7,436
2. Pricing Adjustments		167
A. Annualization of FY 1989 Direct Pay Raise	(118)	
(1) Classified	18	
B. FY 1990 Direct Pay Raise	(77)	
(1) Classified	77	
C. Stock Fund	(4)	
(1) Non-fuel	4	
D. Industrial Fund Rates	(3)	
E. Other Pricing Adjustments	(65)	
3. Program Decreases		-304
A. Other Program Decreases in FY 1990	(-304)	
(1) Decrease in travel associated with conducting safety inspections.	-50	
(2) Decrease of costs associated with the implementation of COPE.	-254	
4. FY 1990 Budget Request		\$7,299
5. Pricing Adjustments		199
A. Annualization of FY 1990 Direct Pay Raise	(26)	
(1) Classified	26	
B. FY 1991 Direct Pay Raise	(116)	
(a) Classified	116	
C. Stock Fund	(4)	
(1) Non-fuel	4	
D. Industrial Fund Rates	(3)	
E. Other Pricing Adjustments	(50)	

Activity Group: Management Headquarters (continued)

B. Reconciliation of Increases and Decreases (continued)

6. Program Increase	25
A. Other Program Growth in FY 1991	(25)
(1) Increase for one additional paid day.	25
7. FY 1991 Budget Request	\$7,523

III. Performance Criteria.

Cost factors are not reflective of the performance criteria for this program package. Operations performed are for the sole purpose of ensuring that funding, manpower and communications systems are properly provided to accomplish the assigned tasking from CNO, Fleet Commanders and other governmental bodies for whom the Navy provides communications.

IV. Personnel Summary.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>End Strength (E/S)</u>				
A. <u>Military</u>	81	77	76	76
Officer	59	59	58	58
Enlisted	22	18	18	18
B. <u>Civilian</u>	162	165	165	165
USDH	162	165	165	165

Department of the Navy
Operation and Maintenance, Navy
Exhibit OP-5

Activity Group: Other Communications
Budget Activity: III - Intelligence & Communications

I. Description of Operations Financed.

Station Operations

These funds support Naval Communications Area Master Stations, Naval Communications Stations, Naval Communications Units, and the ongoing efforts of the Naval Telecommunications Command Automation Software Program (ashore and afloat).

Equipment Installation

These installation projects provide operational commanders with reliable, secure, and rapid information transfer systems for effective command and control of the Navy. Supported in this program are Fleet Satellite Communications requirements and the Minimum Essential Emergency Communications Network (MEECN).

Communications Security

Communications Security (COMSEC) program functions include providing technical and engineering support in the development and operational evaluation of new equipment, subsystems and ancillary devices and performance of comprehensive instrumented tests (TEMPEST surveys) of shipboard and shore facilities handling classified information. COMSEC further includes maintenance, overhaul, repair and modification costs for Fleet cryptographic devices and systems. The Signals Security program encompasses six basic operations including surveillance, training, vulnerability assessment, engineering and technical services, installation and de-installation, and overhaul/refurbishment. Operations financed under Navy Communications Security Material System include management and operation of the office of the Director, management of COMSEC material, a Central Office of Record to account for all COMSEC material, and development of procedures to be used in situations where the physical security of COMSEC material has been violated.

Activity Group: Other Communications (continued)

II. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout.

	FY 1989			FY 1990 Budget Request	FY 1991 Budget Request
	FY 1988 Actual	Amended Pres. Budget	Appro- priation	Current Estimate	
Station Operations	96,098	97,720	90,181	96,173	98,259
Equipment Installation	58,899	50,995	49,657	52,352	55,112
Communications Security	40,224	32,264	31,615	40,389	39,420
Total	195,221	180,979	171,453	188,914	192,791

III. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate

2. Pricing Adjustments

A. Annualization of FY 1989 Direct Pay Raise

- (1) Classified
- (2) Wage Board
- (3) Foreign National Direct Hire

B. FY 1990 Direct Pay Raise

- (1) Classified
- (2) Wage Board
- (3) Foreign National Direct Hire

C. Stock Fund

- (1) Non-Fuel

D. Industrial Fund Rates

\$167,200

6,439

(350)
221
112
17
(805)
663
59
83
(-28)
-28
(742)

O&M,N
3-33

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

E. FN Indirect Hire
F. Foreign Currency Adjustments
G. Other Pricing Adjustments

(67)
(1,526)
(2,977)

-1,200

3. Functional Program Transfers

A. Transfers Out

(-1,200)

(1) Inter-Appropriation

-1,200

(-1,200)

(a) Transfer of resources to other appropriations and accounts to reflect the conversion of contracted advisory and assistance services to in-house performance to reduce the risk of compromise to the acquisition procurement process. Recent examinations by the Naval Investigative Service and by the Navy Inspector General have shown that excessive contractor involvement contains the potential for disclosure of sensitive information and improper preparation of specifications or processing of procurement documentation.

24,325

4. Program Increases

A. Other Program Growth in FY 1990

(24,325)

(1) Extremely High Frequency (EHF) Satellite Communications. Funds provide for preparation of Base Electronic System Engineering Plan (BESEPS), engineering and installation drawings, initial ISEA planning, depot and Software Support Activity (SSA) planning and installation; and management support of modest cost, widely deployable EHF terminals capable of providing reliable

O&M,N
3-34

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

wartime, covert, jam resistant communications under the projected threat environment. This program is transitioning from RDTSE to O&M.

1,145

- (2) Battle Group Satellite Communications (SATCOM). Funds provide for start of Tactical Receive Equipment (TRE) software integration; installation of Tactical Data Information Exchange Subsystem (TADIXS) shore facility upgrade; and increases in Software Support Activity support for Officer in Tactical Command Information Exchange Subsystem (OTCIXS) II.

454

- (3) Radio Direction Finding Communications (RDFCOMM). Funds provide for increased installations schedule for Tactical Intelligence (TACINTEL) and Combat DF Comms and start of TACINTEL controller software modification.

417

- (4) NAVSTAR Global Position System (GPS). Increase is a result of an increase in pre-installation test and checkout (PITCO) and program management/technical support in the area of In-Service Engineering Activity (ISEA) efforts. The purpose of the ISEA facility is to provide the capability of testing all GPS user equipment in a system configuration prior to installation on Navy platforms, to investigate fleet operational problems and to perform analysis of proposed hardware and software changes. FY 1990 reflects an increase in PITCO and ISEA support as a result of an increase in the delivery of production GPS user equipment.

1,991

O&M,N
3-35

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

- (5) Spacecraft Satellite Communications (SATCOM) Support. Increase reflects additional on-orbit anomaly analysis (spacecraft abnormalities corrected via a command uplink channel) in support of an expanded constellation of satellites and a modest increase in program management support for the UHF Follow-On Satellites. 927
- (6) Remote Automated Terminals (RATS). Installs Standard Remote Terminals (SRT) and Remote Interface Exchange Terminal (RIXT). This is an on-going project to standardize, modernize, upgrade capabilities, and/or replace AUTODIN terminals for message processing purposes. Increase due to 11 upgrades scheduled, site preparation, and installation. 754
- (7) Manual Relay Center Modernization Program (MARCEMP). Replaces the AN/FGC-73 and AN/FGC-178 with modernized ship-to-shore termination procedures for message processing. It increases the speed of message delivery, reliability, and accountability. Increase due to installation of two additional systems. 140
- (8) Navy Standard Teleprinter (NST). Provides a service approved teleprinter for ship and shore users to replace the Model 28 TTYS. Increase due to installation start at one fleet training center and site preparation for FY 1992 installations. 37
- (9) Antenna Replacement. Replaces antennas that provide HF send and receive capabilities at the communications stations. Existing antennas are inadequate due to design deficiencies, cost prohibitive maintenance problems or obsolescence. Increase due to multiple antenna installation at 1 established OCONUS and

O&M,N
J-36

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

2 CONUS locations.

244

- (10) Area Wideband Programs. Convert the DCS from analog to digital transmission and consolidate DCS communications into more coherent, efficient communications systems. Increase due to installation start at two new locations.

859

- (11) Digital Conversion Worldwide. Provides digital transmission systems at Navy locations in concert with other programs and military department efforts. This is part of an interlocking program to support the DCS and upgrade of transmission systems to digital. Increase due to installation at an additional location.

229

- (12) Low Speed Time Division Multiplex (LSTDM). Replaces obsolete analogous Voice-Frequency-Carrier Telecommunications (VFCT) in Navy communication systems with digital time division multiplex equipment and associated modems/line drivers. Increase due to installation at two new locations.

59

- (13) Technical Control Improvement (TCIP). Replaces existing aged, manpower intensive technical control equipment with upgraded equipment for quality monitoring, fault isolation, remote control, and automatic switching of technical control functions worldwide. This effort is part of interlocking programs to support the DCS and NTS transmission systems upgrade. Increase due to addition of a new location.

423

- (14) DCS Orderwire. Provides standardized terminal and intercommunications equipment as well as common control equipment to interconnect basic

O&M,N
3-37

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

orderwire circuits. Program has been held in abeyance due to funding levels available. FY 1990 will be first year the program will be available to resume worldwide installation.

385

- (15) DCS Quality Assurance/Technical Evaluation Program (QA/TAP). Provides support for three teams of experts that conduct evaluations of technical networks to ensure systems are operating at established performance standards. In addition to evaluation Navy systems, the teams conduct evaluations of Air Force and Army systems within assigned geographical locations to ensure intercommunication. Increase due to evaluations required in FY 1990.

16

- (16) Electromagnetic Protection (EMP) Spectrum Management. Provides survivability and connectivity for top priority communications circuits. This is part of an interlocking program to support the DCS and upgrade of transmission systems to digital. Increase will fund electronic design, purchase of installation/test of electronics equipment in shielded enclosures.

640

- (17) International Interoperability. Provides U.S. Navy technical representation to the AUSCANNZUKUS Technical Working Group (TWG) and Permanent Steering Group (PSG), ensuring that international Data Exchange Agreements, Information Exchange Programs and Memoranda of Understanding concerning C2 Tactical Data Systems and Naval Communication Systems receive appropriate technical review and U.S. positions are represented and defended. The program is also assuming an expanding role in providing direct support to fleet elements in

O&M,N
3-38

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

the identification and resolution of international interoperability problems through participation in support of joint exercises. Increases in:

a. AUSCANNZUKUS Technical Management Support. U.S. will assume chairmanship of AUSCANNZUKUS PSG technical committee, necessitating additional support due to the coordination and administrative tasks involved (planning the agenda, taking notes, minutes, etc.)

58

b. Fleet Interoperability Problem Solving. Enhanced capability to provide direct support during joint exercises to identify interoperability problems.

25

(18) Increase in MEECN due to several new Air Force and Navy Diversity Receive Equipment (DRE), E-4B Worldwide Airborne National Command Post Interim MPM (WIM) programs that will require MPM support, testing, and certification.

161

(19) Establish a five year cycle of overhaul, maintenance, painting and preservation for SATCOM antennas.

780

(20) Repair parts and maintenance support for support for new SATCOM equipment.

222

(21) Begin upgrade of SATCOM sites.

393

(22) Increase the level of funding available to accomplish SATCOM SHF E.T. transmitter overhauls.

440

(23) Increase the level of funding available to accomplish SATCOM HEMP maintenance.

22

O&M, N
3-39

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

(24) Increased level of funding required to accomplish required PCS moves.	238
(25) South Atlantic Upgrade: funds new requirement for the maintenance of increased electrical power (generator) and air conditioning capability.	131
(26) Forty-eight (48) obsolete AN/FRT 39/4C HF transmitters will be replaced in FY 1990 with AN/FRT-96 HF transmitters that will require unique items for self-help installation, site preparation and technical assistance. Replacement program will continue through FY 1994.	95
(27) Strategic Homeporting: New contractor-operated NTCC sites will be established to provide over-the-counter AUTODIN services for afloat and ashore activities.	50
(28) Secure Terminal Unit III (STU-III); will replace existing STU-II, AUTOSEVOCOM, wideband and narrowband systems. Funds will provide for installation and for maintenance service agreements.	139
(29) Kanto Plain microwave contract supports replacement of analog equipment with digital equipment.	673
(30) Quality Assurance/Technical Evaluation Program: NAVTELCOM will provide one of three MILDEP Technical Evaluation Teams to test, evaluate, and repair PCS government-owned transmission and the DCS Automatic Switchboard Networks (AUTOSEVOCOM and ATUOVON).	75

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

(31) Mediterranean Realignment. Funds for this classified project will support additional HF equipment at Sigonella and Greece.	530
(32) Manual Relay Center Modernization Program (MARCEMP). This project increases speed of message delivery, reliability and accountability for ship-to-shore terminations. Funds will provide software modification/maintenance and hardware modification/maintenance.	352
(33) Provide funds for additional cost of firmware maintenance of the Demand Assigned Multiple Access (DAMA)/TD1271 and increased cost of software maintenance of the Naval Modular Automated Communication System (NAVMACS) (V) 5.	789
(34) Increased support of DCMS for small equipments, warehouse storage and packaging products.	174
(35) Increase of 110 ANDVT equipment installations (55 shore sites).	1,067
(36) KG-84/KG-30 Replacement - The replacement of KG-30 with the KG-84 crypto equipment commences in FY 1990. This program includes increases for advance planning for an additional 73 racks (755) and 37 rack installations (762).	1,517
(37) KG-84 Phase II Installations - In FY 1990, installation of 105 KG-84 crypto racks (1,784) and advance planning for an additional 21 rack installations (143).	1,927
(38) TSEC/KY-57 (VINSON) - Increase of 109 installation sites to meet JCS/NSA's directed date for the KY-8 replacement cutoff. KY-58 replaces KY-8.	991

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

(39) TEMPEST - Represents an increase of 85 surveys to address high threat areas as directed by CNO and DoD.	1,284
(40) Cryptographic Repair RG-84/RW-7 Replacement - Increase of 63 circuit cutovers.	580
(41) Increase to support JCS requirements for systems documentation for the UHF follow-on constellation.	155
(42) Increase to fully fund Fleet EHF Package program.	413
(43) COMSEC Installations. Increase in training, installation and operations of Automated Emergency Action Message Processing and Dissemination System.	2,000
(44) COMSEC Technical Support. Increase in technical and engineering support from the Naval Electronics System Engineering Center.	324
	-7,850
5. Program Decreases	
A. One Time FY 1989 Costs	(-195)
(1) NAVCOMSTA H.E. Holt Australia Foreign currency rate variance. Presumes improvement in exchange rate.	-195
B. Other Program Decreases in FY 1990	(-7,655)
(1) Satellite Communication Support. Decrease ISEA support for AN/MSC-3 (i.e., technical assist visit, equipment conversions, field changes, configuration updates, technical manual reviews and revisions.)	-909

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

(2) Secure Voice Terminal (SVT). Decrease in installation efforts for SVT.	-548
(3) Submarine SATCOM. The decrease represents a reduction in the In-Service Engineering Agency (ISEA) and technical assistance for the submarine SATCOM program, fewer installations and reductions in engineering and management assist requirements.	-548
(4) NAVSTAR Global Position System (GPS). Reflects reductions in technical support for reliability/maintainability, configuration management and maintenance planning efforts.	-48
(5) Spacecraft Satellite Communications (SATCOM) Support. Reflects reductions in (ISEA) technical assist visits and program management support for verification/validation of UHF follow-on satellites.	-42
(6) SHF SATCOM. This decrease represents reduced installation support for the AN/WSC-6-OM55, the annual grooming for the AN/WSC-6 shipboard suites on fleet flagships and annual test and checkout for the High Altitude Electromagnetic Pulse (HEMP) hardening at the SATCOM SHF shore sites.	-1,428
(7) Local Digital Message Exchange (LDMX). Decrease due to FY 1989 completion of three systems.	-357
(8) AN/FRT-80 Series Field Change. Decrease due to three less installations in FY 1990.	-208
(9) AN/FRT-96 Transmitter. Decrease due to	

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

CONUS vice OCONUS locations. FY 1989 installations are at Whidbey Island, WA, Iceland, and Adak, Alaska, and site preparation is accomplished with installation. FY 1990 installations are at Key West, Puget Sound, and Jacksonville. Decrease due to one less installation in FY 1989.

-454

- (10) HF SURTASS. Decrease due to FY 1989 project completion.

-70

- (11) Ashore Mobile Contingency Communications (AMCC) Vans. Provided to Fleet CINCS with a mobile tactical communications ability for emergency deployment and as a shelter for current vans. Major effort on vans completed in FY 1989. FY 1990 funds minor effort on two vans and engineering support for center of expertise. Decrease due to FY 1989 completion of installations.

-117

- (12) Regency Net. Decrease due to FY 1989 completion of program.

-189

- (13) Upgrades/Expansions/Relocations. Decrease due to completion of four sites in FY 1989.

-649

- (14) Defense Data Network (DDN). Decrease due to procurement slip and delayed delivery.

-72

- (15) Autovon/Defense Switch Network (DSN). Decrease due to procurement slip and delayed delivery.

-59

- (16) FY 1989 Efficiency Review (ER) workyear decreases

-444

- (17) Net savings for FY 1989 CA studies

-10

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

EHF Package Program (FEP).

(18) KG-84/KW-7 Replacement - Decrease of 15 rack installations, decrease in advance planning for 119 rack installations and decreased site certification costs.

-1,331

(19) Reduce maintenance and repair support for SVIP (STU III), SCP and SAS.

-22

(20) Reduced cryptographic repair depot maintenance at Naval Shipyard

-50

6. FY 1990 President's Budget Request

\$188,914

7. Pricing Adjustments

5,431

A. Annualization of FY 1990 Direct Pay Raise

(1) Classified

(342)

(2) Wage Board

248

(3) Foreign National Direct Hire

74

B. FY 1991 Direct Pay Raise

(1,257)

(1) Classified

1,073

(2) Wage Board

83

(3) Foreign National Direct Hire

181

C. Stock Fund

(190)

(1) Non-fuel

190

D. Industrial Fund Rates

(453)

E. FN Indirect Hire

(78)

F. Other Pricing Adjustments

(3,111)

14,990

8. Program Increases

(1,592)

A. Annualization of FY 1990 Increases

1,592

(1) Strategic Homeporting

OGM, N
3-45

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

(13,398)

B. Other Program Growth

- (1) Extremely High Frequency (EHF) Satellite Communications:
Funds provide for modifications of power, cooling and physical structure at shore sites in preparation of EHF terminal installations which are modest cost, widely deployable EHF terminals capable of providing reliable wartime, covert, jam resistant communications under the projected threat environment.
- Preparation of plans for transition from contractor to government support at ISEA, depot and SSA.
- Modification of power, cooling and physical structures to support maintenance equipment at the ISEA and depot.
- Prime contractor engineering field/plant services to support site preparation/modification, terminal installation and organic maintenance planning.
- Additional level of effort in O&M,N due to transition from RDT&E for headquarters support and travel.
- (2) Satellite Communications Support. Start installation of AN/WSC-3 vulnerability modifications.
- (3) NAVSTAR Global Position System (GPS). Provides continuous worldwide three-dimensional positioning capability to the

1,070

296

290

110

20

1,289

O&M,N
3-46

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

operational forces. User equipment will be installed on more than 7,000 platforms (aircraft, ships, submarines and land based platforms.) FY 1991 reflects an increase in PITCO and ISEA efforts as a result of an increase in the delivery of production user equipment. FY 1991 reflects an increase in program management and technical support as the following efforts transition from R&D to O&M,N: maintaining and updating the Central Engineering Activity Library, user equipment software/hardware failure tracking and reporting, configuration management, technical manual printing and distribution, database management, inventory management and logistic support.

2,657

- (4) Spacecraft Satellite Communications (SATCOM) Support. Provides logistic support of Leased Satellite (LEASAT) GFE, analyzing Fleet Satellite Communications (FLRSATCOM) on-orbit anomalies and support of the qualification model spacecraft used as a diagnostic tool for emulating orbital problems; and planning, preparation and documentation in support of the Ultra High Frequency (UHF) Follow-on program for contract award, contract monitoring and program oversight. Increase reflects additional on-orbit anomaly analysis in support of an expanded constellation of satellites and an increase in program management support for the UHF Follow-on satellites. Also provides for planning and documentation in support of the Ultra High Frequency (UHF) Follow-on program for contract monitoring and program oversight.

455

O&M,N
3-47

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

(5) Manual Relay Center Modernization Program (MARCEMP). Replaces the AN/FGC-73 and AN/FGC-178 with modernization ship-to-shore termination procedures for message processing. It increases the speed of message delivery, reliability, and accountability. Increase due to OCONUS installations.

74

(6) AN/FRT-80 Series Field Change. Extends service life of the AN/FRT-80 series transmitters until the mid 1990s when new HF equipment is anticipated. Increase due to the mix of equipments to be installed at each location.

59

(7) Chirpsounder. Provides more reliable communications by satisfying the requirement of real time determination of which frequencies in the HF range are optimum for transmission between two points. Increase is for Base Electronics System Engineering Plans (BESEPs), site surveys and engineering design. FY 1991 continues design and begins installation.

507

(8) Upgrades/Expansions/Relocations. Provides engineering design, technical support and as-built drawings for relocation and installation of equipment to ensure efficient and effective communication capability at the Navy shore telecommunications sites. Increase due to expanded efforts in Mediterranean realignment and Strategic Home Porting.

2,038

(9) Area Wideband Programs. Increase is to convert the DCS from analog to digital transmission and consolidate DCS communications into more coherent, efficient communications systems. This increase is due to expanded

O&M,N
3-48

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

efforts in the Washington Area Wideband. 708

(10) Electromagnetic Protection (EMP) Spectrum Management. Provides survivability and connectivity for top priority communications circuits. This is part of an interlocking program to support the DCS and upgrade of transmission systems to digital. Increase is for the completion of the second phase of an installation. 186

(11) MEECN increase due to several new Air Force and Navy Diversity Receive Equipment (DRE), E-4B Worldwide Airborne National Command Post Interim WPM (WIM) programs that will require WPM support, testing and certification. 256

(12) One additional CIVERS workday 133

(13) Increase for additional LCMS material and supplies 14

(14) KG-84/KG-30 Replacement - Increase to replace KG-30 equipment with KG-84 with installation of an additional 73 racks of equipment (1,554) and circuit cutover/certifications at 21 sites (212). 1,766

(15) KG-84 Phase II Installation - Increase to install an additional 21 racks of KG-84 equipment (369) and perform 68 circuit cutover/certifications at 68 sites (680). 1,049

(16) Cryptographic Repair Training. Increase to provide for adequate training for repair personnel to meet new requirements and equipments to be repaired. 332

(17) Depot Maintenance. 89

O&M, N
3-49

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

Increased Naval Shipyard support depot repair.

-16,544

9. Program Decreases

A. Other Program Decreases in FY 1991

(-16,544)

- (1) Demand Assigned Multiple Access (DAMA). Provides for the installation of multiplexer systems and phased integration of baseband systems. TD 1271 B/U multiplexer and associated rack installations are near completion. Decrease reflects reduction in software support activity efforts.
- (2) Battle Group Satellite Communications (SATCOM). Decrease reflects reduction in integration and test efforts due to deployment of Officer in Tactical Command Information Exchange Subsystems (OTCIXS II); completion of Tactical Digital Information Exchange Subsystems (TADIXS) Phase IV installation; and reduction in OTCIXS installation planning.
- (3) Submarine Satellite Communications (SATCOM). Decrease reflects reduction in engineering and management support functions.
- (4) Radio Direction Finding (RDF) Communications. Decrease reflects further reduction in Tactical Intelligence Information Exchange Systems (TACINTEL) controller software modifications.
- (5) SHF SATCOM. Decrease reduces installations costs and management support requirements.
- (6) Local Digital Message Exchange (LDMX).

-1,271

-2,260

-417

-56

-1,396

O&M, N
3-50

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

Decrease due to FY 1990 completion of one system.	-187
(7) Antenna Replacement. Decrease due to two less sites scheduled for installation.	-219
(8) AN/FRT-96 Transmitter. Decrease due to installation at one less location.	-49
(9) Digital Conversion Worldwide. Decrease due to completion of five locations and partial FY 1990 completion of four locations.	-1,066
(10) Low Speed Time Division Multiplex (LSTDM). Decrease due to lesser amounts of equipment to be installed at the FY 1991 sites.	-53
(11) Technical Control Improvement Program (TCIP). Decrease due to level of FY 1990 program completion.	-1,366
(12) DCS Orderwire. Decrease due to two less installations in FY 1991.	-164
(13) Defense Data Network (DDN). Decrease due to installation at one less location.	-46
(14) Autovon/Defense Switch Network (DSN). Decrease due to reduced effort planned in FY 1991.	-99
(15) DCS Quality Assurance/Technical Evaluation program (QA/TEP). Decrease due to level of FY 1990 program accomplishments.	-124
(16) Completion of NAVMACS conversion to V1 and V2, completion of CUDIXS/NAVMACS NET DANA and	-1,791

O&M, N
3-51

Activity Group: Other Communications (continued)

III. Reconciliation of Increases and Decreases (continued)

decrease of hardware acceptance test (HAT) and test and acceptance (T4A) in NAVCOMPARS.

(17) Net savings for FY 1990 CA Studies -84

(18) FY 1990 Efficiency Review (ER) work -218

(19) Decreased cost associated with Kanto Plain Microwave Contract let out-over. -293

(20) Reduction in equipment maintenance costs due to disposal of antiquated equipment. -11

(21) KG-84/KW-7 Replacement - Decrease in installation of 119 racks (-1,934), 128 less circuit cutovers (1,384) and 196 less site certifications (-329). -3,612

(22) TEMPEST - Decrease of 2 surveys. -5

(23) KG-30 Replacement - Reduction in the advance planning for 23 less racks for installation. -240

(24) KG-84 Phase II - Reduction in advance planning for 1 less rack installation. -9

(25) Completion of augmentation kits for temporary installation into deploying ships to ensure compatibility of secure communications. -1,195

(26) Reduced maintenance and repair support for SVIF (STU III), SCP and SAS. -313

10. FY 1991 Budget Estimate

\$192,791

Activity Group: Other Communications (continued)

III. Performance Criteria.

FY 1988 FY 1989 FY 1990 FY 1991

Station Operations (\$000)

Naval Communications Area Master Stations	29,146	26,220	28,784	29,387
Naval Communications Stations	30,740	27,655	30,359	30,997
Naval Communications Units	10,284	9,251	10,155	10,368
Naval Communications Supporting Program	20,415	18,365	20,161	20,583
Satellite Tracking, Telemetry and Control	5,513	5,945	6,714	6,924
Total	96,098	87,436	96,173	98,259

Equipment Installation (\$000)

Satellite Communications	41,708	35,098	36,377	38,340
Naval and Long-Haul Communications	15,611	13,346	15,243	15,756
Minimum Essential Emergency Communications Network	506	546	732	1,016
Outfitting	1,074	0	0	0
Total	58,899	48,990	52,352	55,112

Communications Security (COMSEC) (\$000)

Security Standards and Assessment (TEMPEST Survey & Non-Survey)	3,800	2,275	3,567	3,643
COMSEC Tech. Support (COMSEC Engineering)	3,600	2,458	2,837	3,261
COMSEC Engineering and Installation	20,504	15,144	22,368	20,528
Cryptographic Repair Depot Maintenance	9,800	8,312	8,787	9,080
Total Primary COMSEC	37,704	28,189	37,559	36,512
Total Signal Security	2,520	2,585	2,830	2,908

O&M,N
3-53

Activity Group: Other Communications (continued)

III. Performance Criteria (continued)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>No. of Surveys</u>			
Number of Surveys requested	325	255	255	255
Number of Surveys accomplished	-295	-147	-232	-230
Number of Surveys deleted*	712	642	650	573
Net backlog at year end	-100	-100	-100	-100
	642	650	573	498

TEMPEST Field Survey Program

Number of Surveys requested
 Number of Surveys accomplished
 Previous FY year end backlog
 Number of Surveys deleted*
 Net backlog at year end

*Surveys deleted are due to facility closures, equipment reconfigurations or relocations, charges in classification of information being processed, etc., resulting in the surveys no longer being required and therefore purged from the backlog.

IV. Personnel Summary

End Strength (E/S)

A. Military

Officer:
 Enlisted

B. Civilian

USDH
 FNDH
 FNIH

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	6,649	7,021	6,971	6,902
	248	248	257	257
	6,401	6,773	6,714	6,645
	1,542	1,418	1,429	1,400
	1,424	1,318	1,314	1,285
	82	63	79	79
	36	37	36	36

DEPARTMENT OF THE NAVY
OPERATION & MAINTENANCE, NAVY
EXHIBIT OP-05

Activity Group: Environmental/Prediction Support
Budget Activity: III - Intelligence and Communications

I. Description of Operations Financed.

Funding within this activity group supports a broad range of operational oceanographic products and services which are provided to Navy/DOD operating forces and activities, both afloat and ashore. This support requires the collection and processing of ocean environmental data and the provision of specific products to address: (a) Chief of Naval Operations (CNO) and Defense Mapping Agency (DMA) requirements; (b) CNO, Fleet and Systems Command requirements for Navy air, surface and sub-surface operations; (c) DMA requirements for Unified and Specified Command nautical chart deficiencies; and (d) to provide general meteorological and oceanographic services to the Navy.

Oceanographic surveys are conducted from 12 ships operated by the Military Sealift Command and : aircraft operated by Oceanographic Development Squadron EIGHT.

A. Operations in Support of Strategic Systems. Details are classified.

B. Operations in Support of Tactical and Surveillance Systems. Oceanographic and geophysical data which influence the performance of active and passive sensor and weapon systems are collected over broad ocean areas to: (1) assist in placement and installation of acoustic arrays and cables for the underwater surveillance network; (2) optimize the Anti-Submarine Warfare (ASW) sea control mission (including offensive and defensive mining and mine countermeasures); and (3) identify the effects that discontinuity areas (fronts and eddies) have on fixed and mobile ASW systems in regard to ASW/Undersea Warfare tactics. Products include computer assisted ASW prediction products, Planning Guides, Area Environmental Assessments, Mine Warfare Pilots and inputs to Fleet tactical manuals and sonar operating doctrine.

C. Operations in Support of Navigation and Charting. (1) Hydrography. Hydrographic data are collected in nearshore areas to support the production of coastal, combat, approach, harbor and special purpose nautical charts to address DMA requirements. The data are principally collected from two (being three in FY 1990 and four in FY 1991) coastal survey ships. Additional data are collected through international cooperative surveys and the Hydrographic Cooperative Program (HYCOOP). (2) Magnetism. specially configured aircraft is used to measure the earth's magnetic field. The collected magnetic data is the primary input for development of the United States World Magnetic Model and is incorporated by DMA onto world charts.

Activity Group: Environmental/Prediction Support (continued)

I. Description of Operations Financed (continued)

D. Operations in Support of Command and Control. Resources fund the operation of 71 activities at various locations throughout the world. These include: the Fleet Numerical Oceanography Center, Monterey, CA with over 200 employees - it provides general and tailored acoustic and meteorological forecasts to Fleet Commands and individual operating units - serves as the major processing center for all meteorological data collected worldwide - provides this processed data and data fields to regional centers; five major regional centers with Areas of Responsibility (AOR) for the Arctic, Pacific, Atlantic; Eastern Pacific/Indian Ocean and Mediterranean, respectively; one Facility responsible for centralized meteorological equipment management and management of supporting Reserve units; and 63 smaller activities which provide daily on-scene meteorological and oceanographic forecast support. Included also are resources for major computer operations, communications, expendable oceanographic and meteorological sensors, etc., all of which support Navy's worldwide oceanographic/meteorological forecast requirements.

E. Aircraft Support Operations. Aircraft Operations for Environmental/Prediction Support are provided by (1) Oceanographic Development Squadron Eight (VXN-8) for collection of Tactical and Surveillance data and by (2) two helicopters assigned to two large coastal survey ships (AGS's) for collection of Navigation and Charting data. Operations financed in this program include costs for aircraft fuel, maintenance, and TAD in support of aircraft assigned.

II. Financial Summary (Dollars in Thousands).

A. Subactivity Group Breakout.

	FY 1988			FY 1989		FY 1990		FY 1991	
	FY 1988 Actual	Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request	Budget Request
Strategic Systems	44,690	55,293	55,054	53,411	51,117	51,117	58,566	58,566	58,566
Tactical and Surveillance	55,673	59,718	55,452	57,819	73,814	73,814	79,631	79,631	79,631
Command and Control	25,964	23,443	23,032	25,677	33,135	33,135	33,876	33,876	33,876
Navigation and Charting	21,474	25,818	25,818	25,261	28,550	28,550	38,846	38,846	38,846
Aircraft Support	4,530	4,267	4,231	4,108	3,867	3,867	3,258	3,258	3,258
Total	152,331	168,539	163,587	166,276	190,483	190,483	214,177	214,177	214,177

Activity Group: Environmental/Prediction Support (continued)

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate	166,216
2. Pricing Adjustments	
A. Annualization of FY 1989 Direct Pay Raises	
(1) Classified	(450)
B. FY 1990 Direct Pay Raises	450
(1) Classified	(625)
(2) Wage Board	624
C. Stock Fund	1
(1) Fuel	(-195)
(2) Non-Fuel	-122
D. Industrial Fund Rates	-73
E. Other Pricing Adjustments	(5,452)
	(1,684)
3. Program Increases	17,810
A. Annualization of FY 1989 increases	(3,289)
	2,384

(1) USNS MAURY and USNS TANNER, two new construction deep ocean bathymetric and gravity survey vessels which support Navy's high priority Ocean Survey Program, will be delivered for operational service in FY 1989. FY 1990 funding reflects full-year contractor operation of these two ships, offset by the retirement of USNS DUTTON (which will be replaced by USNS TANNER) as well as full-year costs for survey operations.

Activity Group: Environmental/Prediction Support (continued)

R. Reconciliation of Increases and Decreases (continued)

905

- (2) A Large Scale (Class VII) super computer, procured within the FY 1989 Computer Acquisition Program for installation at the Naval Oceanographic Office, Stennis Space Center, MS, will be used for dynamic ocean and ice modelling to support worldwide Naval Operations. Contractor operations costs represent an increase in partial year FY 1989 costs which were associated with initial establishment of a contractor operations force, and other pre-installation prerequisites. FY 1990 costs will cover partial year contractor operations and hardware maintenance.

(1,838)

B. One-Time FY 1990 Costs

400

- (1) In response to DMA requirements for enhancing hydrographic data collection rates and capabilities, a specially configured RP-3D aircraft will be modified to carry a suite of hydrographic sensors which will be used to conduct airborne coastal hydrographic surveys. One time costs associated with this initiative include installation of airborne sensing systems, training, spares, OPEVAL and other related items.

420

- (2) The capabilities of the Bathymetric Data Editing and Analysis System at the Naval Oceanographic Office will be upgraded to improve the accuracy by which bathymetric data (collected during surveys carried out on-board four deep Ocean Survey Program vessels) is analyzed, processed and converted to the level and degree of quality required for production of chart products by the Defense Mapping Agency.

Activity Group: Environmental/Prediction Support (continued)

B. Reconciliation of Increases and Decreases (continued)

(3) Costs associated with magnetic data compilation and processing to update the World Magnetic Model for EPOCH Year 1990 and 1995 requirements. Data sources for the EPOCH 1990 update include the Polar Orbiting Geomagnetic Survey satellite (which is scheduled for launch in FY 1989) as well as available vector magnetic data from other sources.	206
(4) The Naval Environmental Data Network (NEDN) Oceanographic Data Distribution and Expansion System (NODES) will provide Regional Oceanography Centers with the capability to access the large volume of data which is resident at the Fleet Numerical Oceanography Center. This data and the NODES system will be used to prepare oceanography support products which address the specific needs of forces in each respective Area of Responsibility. Additional resources will address an expansion of the system's capability to process oceanographic and atmospheric data, as well as interconnectivity with other tactical support systems which will become operational at Anti-Submarine Warfare Operations Centers.	642
(5) Extended yard period overhauls are scheduled for USNS BENT and USNS KANE during FY 1990.	170

Activity Group: Environmental/Prediction Support (continued)

R. Reconciliation of Increases and Decreases (continued)

C. Other Program Growth in FY 1990

(12,691)

(1) In an effort to improve the effective utilization of limited Navy officer and enlisted manpower, a plan has been developed to reduce military staffing in "shore intensive" areas by substituting civilian manpower where possible. This plan includes the replacement of enlisted Data Processing (DP) and Data Systems (DS) Technicians with civilian computer operators at the Fleet Numerical Oceanography Center, Monterey, CA, as well as the replacement of enlisted Aerographer's Mates with civilian Meteorological Forecasters at COMUS Oceanography Detachments.

2,189

(2) Additional costs associated with the annual software (operating system) license for the Hydrographic/Oceanographic Data Acquisition System.

104

(3) Increasing emphasis and effort continues to be placed on addressing fleet needs for ocean acoustic information, data and prediction capabilities/products which will enhance the effectiveness and safety of Anti-Submarine Warfare (ASW) operations, systems and sensors. This emphasis is driven by changes in active and passive ASW sensor technology as well as tactics and procedures which are required for successful execution of surface and subsurface ASW efforts. FY90 acoustic prediction and support initiatives will include additional oceanographic surveys, an expansion of oceanographic, bathymetric, hydrographic and acoustic data bases with emphasis on data sparse fleet operating areas of high interest, and specific detailed analyses of the effects of

3,313

Activity Group: Environmental/Prediction Support (continued)

B. Reconciliation of Increases and Decreases (continued)

shallow water acoustic propagation characteristics on a broad (frequency) range of active and passive systems and sensors. Products include special charts and publications for use by the submarine and surface forces such as Shallow Water Environmental Guides, port and coastal charts and Submarine Tactical Oceanographic Reference manuals.

- 1,187
- (4) Operations associated with two classified CMO-sponsored cooperative Anti-Submarine Warfare survey and support programs which will begin in FY 1990. This effort will provide a cost effective method for collection of oceanographic and acoustic data, will support the production of additional environmental support products, and will enhance the transition of emerging ASW capabilities to operational use.

- 451
- (5) Additional hardware maintenance costs associated with the additional shipboard data collection and oceanographic sensing systems as well as oceanographic data processing and analysis systems and components at the Naval Oceanographic Office, the Fleet Numerical Oceanography Center, and Regional Oceanography Centers.

- 23
- (6) Increased flying hours reflect aircraft out of service in FY 1989 for sensor system upgrade being returned to full service.

Activity Group: Environmental/Prediction Support (continued)

P. Reconciliation of Increases and Decreases (continued)

- (7) Expansion/Improvement of the capabilities of the Primary Environmental Processing System. This effort is directed at enhancing Navy capabilities to: expeditionally analyze and process meteorological and oceanographic data to describe the total Navy operating environment, predict environmental conditions to the level of accuracy required by weapons/sensor systems, and prepare, disseminate and display platform and weapons system performance prediction based upon forecast environmental conditions. It also includes the review, standardization and documentation of applications programs so as to improve their operational efficiency and ease of transition to planned replacement systems.

1,099

- (8) USNS MCDONNELL will be delivered as an operational hydrographic survey vessels in FY 1990. At-sea data collection and in-house data processing/reduction will be carried out by civilian scientists and technicians. FY 1990 costs support operating costs for USNS MCDONNELL, as well as an increase to the civilian scientific staff that will be required to carry out at-sea survey operations/in-house data processing.

3,486

- (9) Expansion of oceanographic and meteorological support activities at Oceanography support centers, and within the Mobile Environmental Support Teams that deploy in non-aviation surface combatants and submarines. This support includes additional atmospheric soundings to address the requirements of numerous warfare operations, as well as on-scene forecasting and prediction activities based on available climatology and actual oceanographic conditions.

371

Activity Group: Environmental/Prediction Support (continued)

B. Reconciliation of Increases and Decreases (continued)

293

- (10) Additional ship overhaul requirements associated with the addition of USNS MAURY to the Ocean Survey Program fleet. Yard period overhauls include repairs and maintenance to survey suites, equipments and spaces on-board Ocean Survey Program vessels.

175

- (11) In response to the continuing needs of forces operating in the Arctic and other remote areas, an integrated program has been established to purchase, deploy and monitor Arctic, Air-Sea Interaction Drifting, and sonobuoy size mini-drifting buoys. Drifting buoys are being deployed to provide sustained data collection capabilities in areas in which it is otherwise expensive to operate ship and aircraft survey platforms (e.g. the Arctic and Western Pacific). Drifting buoys are also being deployed to fill a critical data deficiency created by the elimination of typhoon reconnaissance aircraft. Mini-drifting buoys are being deployed to support routine generation of local scale (high resolution) oceanographic analyses and forecasts in areas of high ocean variability. An initial expense is associated with the purchase of an additional inventory to support program expansion based on validated fleet requirements for expanded oceanographic prediction data.

-1,6 }

4. Program Decreases

(-1,525)

A. One-Time FY 1989 Costs

-146

- (1) Engineering design costs associated with the modification of a uniquely configured RP-30 Aircraft to include the Airborne Hydrographic Survey System in its survey suite.

-960

- (2) Costs of installing an upgraded Sonar Array Survey System on the USNS WYMAN.

O&M,N
3-63

Activity Group: Environmental/Prediction Support (continued)

R. Reconciliation of Increases and Decreases (continued)

(3) Costs associated with the installation of an Uninterruptible Power Supply at the Naval Western Oceanography Center.	-234	
(4) Installation of GPS receivers on-board six oceanographic survey vessels.	-185	
B. Other Program Decreases in FY 1990	(-102)	
(1) Decrease of flying hours in support of USNS Harkness ocean exercises.	-102	
		190,483
5. FY 1990 President's Budget Request		8,095
6. Pricing Adjustments		
A. Annualization of FY 1990 Direct Pay Raises	(276)	
(1) Classified	275	
(2) Wage Board	1	
B. FY 1991 Direct Pay Raises	(1,021)	
(1) Classified	1,019	
(2) Wage Board	2	
C. Stock Fund	(159)	
(1) Fuel	60	
(2) Non-fuel	99	
D. Industrial Fund Rates	(4,855)	
E. Other Pricing Adjustments	(1,784)	
7. Program Increases		19,115
A. Annualization of FY 1990 Increases	(7,020)	
(1) Civilian substitution of meteorological technicians and computer operators for Navy enlisted Aerographer's Mates, Data Processing and Data Systems Technicians.	2,041	

Activity Group: Environmental/Prediction Support (continued)

B. Reconciliation of Increases and Decreases (continued)

4,979

- (2) Full year operations and civilian staffing of USNS MCDONNELL for at-sea data collection and in-house data processing of coastal hydrographic data.

(279)

B. FY 1991 One Time Increases

279

- (1) A major dry-dock overhaul of the USNS HESS is scheduled to be performed in FY 1991. During this overhaul, specific repairs, modifications and improvements to survey systems and associated components will be accomplished.

(11,816)

C. Other Program Growth in FY 1991

181

- (1) One additional compensable workday.

230

- (2) Increase in ship overhaul requirements due to the addition of the USNS TANNER in late FY 1989.

1,589

- (3) Full year operations and maintenance of the Large Scale Computer which was procured and installed at the Naval Oceanographic Office, Stennis Space Center, MS, for dynamic ocean and ice modelling to support worldwide Naval Operations.

7,895

- (4) An expansion of coastal hydrographic data collection in politically accessible areas of the world through the addition of USNS LITTLEHALES to the coastal hydrographic survey fleet. Costs include partial year ship operations and additional civilian scientific staffing to support at-sea surveys and in-house data processing.

Activity Group: Environmental/Prediction Support (continued)

B. Reconciliation of Increases and Decreases (continued)

(5) An investment of additional resources is programmed in FY 1990 for modifications to gravity, bathymetric, oceanographic, acoustic, and magnetic data analysis programs in preparation for the delivery of a replacement to the UNIVAC 1100/83 computer which is scheduled for FY 1992.	606
(6) Further expansion of Space Oceanography Program efforts. New users (SURFANT/SUBPAC) are driving Space Oceanography to new spatial resolutions (the tactical scale). Real-time fronts and eddies, previously characterized at 50-100 km resolutions, will be routinely produced at 5-10 km resolutions. Ice edge, now characterized to 50 km, will be identifiable to 10-25 km. Ice motion will be derived from automatic data ingest via image display techniques. Satellite derived rain rate (and areas), water vapor, and liquid cloud water will replace the discontinued typhoon (storm) reconnaissance flights. Satellite ocean data will automatically initialize an entirely new family of tactical/local scale numerical ocean prediction models. Data distribution to Navy, DOD, and civilian sector (NOAA/NASA) interests will be put in place, thereby putting the satellite image, data, and model output directly at the users' location, whether routine support or high tempo operations, in near real-time (less than 4 hours).	1,315
8. Program Decreases	-3,516
A. One-Time FY 1990 Costs	(-3,900)
(1) Installation of Airborne Bathymetric System (ABS) accomplished in FY 1990.	-412
(2) Upgrades to the Bathymetric Edit Analysis and Matrix System.	-433

Activity Group: Environmental/Prediction Support (continued)

B. Reconciliation of Increases and Decreases (continued)

(3) Costs associated with magnetic data compilation and processing to update the World Magnetic Model for EPOCH Year 1990 and 1995 requirements.	-214
(4) Expansion of NODDES capabilities accomplished in FY 1990.	-664
(5) Extended yard period overhauls to USNS BENT and USNS KANE which were performed in FY 1990.	-177
B. Other Program Decreases in FY 1991	(-1,616)
(1) With the implementation of the Global Positioning System (GPS) reduced travel and logistical resources are programmed for the Navigational Aids (NAVALDS) detachment supporting hydrographic surveys.	-269
(2) Reduced effort directed at Arctic Warfare Support requirements.	-637
(3) Global Positioning Satellite will come on line in FY 1991 and provide land based positioning eliminating the requirement for H-2 associated flying hours heretofore used in transporting equipment in support of triangulation.	-710

9. FY 1991 President's Budget Request

\$210,913

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria

ENVIRONMENTAL PREDICTION SUPPORT TO STRATEGIC SYSTEMS

PROJECT: BATHYMETRIC SURVEYS

REQUIREMENT/OBJECTIVE: Collect bathymetric (ocean depth, bottom topography) data in Fleet operating areas. Conduct data processing activities ashore. Provide chart quality data to DMA for inclusion in surface, sub-surface navigation and planning chart products. Develop/maintain digital bathymetric data bases.

PROJECT EFFORTS:

- o Shipboard surveys

PERFORMANCE CRITERIA:

PRECISE BATHYMETRIC NAVIGATION ZONE CHARTS (PBNZC)	FY 88	FY 89	FY 90	FY 91
LINEAR NAUTICAL MILES OF SURVEY DATA COLLECTED	240	240	240	240
NUMBER OF BATHYMETRIC NAVIG. PLANNING CHART (BNPC)	310000	395000	429000	429000
	48	31	31	31

PROJECT: GRAVITY SURVEYS

REQUIREMENT/OBJECTIVE: Collect gravity data in Fleet operating areas, conduct data processing activities ashore to characterize variations in the earth's gravitational force (gravitational deflection, anomalies, deviations from spherical values, etc.).

PROJECT EFFORTS:

- o Shipboard surveys
- o Satellite data processing

PERFORMANCE CRITERIA:

VERTICAL DEFLECTION DATA POINTS	FY 88	FY 89	FY 90	FY 91
NUMBER OF GRAVITY PRODUCTS	134000	85800	98100	98100
VERTICAL DEFLECTION SQUARE MILES	9	12	12	12
LINEAR NAUTICAL MILES OF SURVEY DATA COLLECTED	2110000	1532000	1752000	1752000
	312300	361900	423200	423200

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

PROJECT: ASW BOTTOM MAPPING

REQUIREMENT/OBJECTIVE: Collect, analyze and process bathymetric data at sea in support of COMUSPAWASV: OM project requirements. Maintain digital bathymetric data bases for the compilation of maps worldwide.

PROJECT EFFORTS:

- o Shipboard surveys

PERFORMANCE CRITERIA:

SURVEY MANUSCRIPTS	FY 88	FY 89	FY 90	FY 91
SURVEY NAUTICAL MILES	36	36	36	36
NUMBER OF SHIP MONTHS OF SURVEY EFFORT	22000	25000	25000	25000
	14	14	16	16

ENVIRONMENTAL PREDICTION SUPPORT TO NAVIGATION AND CHARTING

PROJECT: HYDROGRAPHIC SURVEYS

REQUIREMENT/OBJECTIVE: Collect hydrographic data in politically accessible coastal areas for the production of port, harbor, coastal combat and mine warfare charts.

PROJECT EFFORTS:

- o Shipboard surveys with Navy assets
- o Airborne surveys - a new initiative
- o Alternate survey sources (cooperative efforts with other agencies)
- o Cooperative Programs - assist foreign government in establishing a survey capability
- o Foreign Governments Assisted: Indonesia (FY85-FY89), Somalia (FY85-87 and FY89), East Africa (FY87/88), North Africa (FY89), Bahamas (FY85/86), Honduras (FY85-FY87), Diego Garcia (FY88), Mid East (FY89), North Atlantic (FY88), Korea (FY85-FY89), Latin America (FY85-FY89)

PERFORMANCE CRITERIA:

LINEAR NAUTICAL SURVEY MILES	FY 88	FY 89	FY 90	FY 91
LINEAR NAUTICAL SURVEY MILES - HYCOOP	35000	30000	50000	85000
	22000	24000	26000	28000

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

FACTORS WHICH INFLUENCE PRODUCTIVITY:

- o Poughness/complexity of survey area
- o Nishaps (groundings, equipment malfunctions)

PROJECT: MAGNETIC SURVEYS

REQUIREMENT/OBJECTIVE: Collect, analyze and process magnetic data for inclusion in marine, air and land navigation chart products of the Defense Mapping Agency. Maintain the World Magnetic Model, and provide an EPOC (time referenced) update to the World Model every five years. Maintain and operate the DoD Geomagnetic Data Library, to include a digital geomagnetic data base.

PROJECT EFFORTS:

- o Shipboard Surveys
- o Airborne Surveys (PROJECT MAGNET)
- o Data Collection via an Autonomous Space Probe

PERFORMANCE CRITERIA:

	FY 88	FY 89	FY 90	FY 91
LINEAR NAUTICAL MILES OF AEROMAGNETIC DATA COLLECT	240000	120000	120000	120000
AEROMAGNETIC DATA PROCESSED (LINE MILES)	120000	60000	80000	180000
SATELLITE DATA PROCESSED (LNM)	0	37100000	40000000	15000000
SATELLITE MILES OF SURVEY DATA COLLECTED	0	74200000	98000000	0

ENVIRONMENTAL PREDICTION SUPPORT TO TACTICAL AND SURVEILLANCE

PROJECT: ACOUSTICS

REQUIREMENT/OBJECTIVE: Address Fleet needs for ocean acoustic data and products which enhance the effectiveness of ASW systems and sensors.

- o Support Navy's Acoustic Performance Prediction Program.
- o Characterize underwater sound transmission, ambient noise, bottom sound reverberation.
- o Support active/passive surveillance sensors; ASW systems.

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

PERFORMANCE CRITERIA:	FY 88	FY 89	FY 90	FY 91
ACOUSTIC STUDIES	3	3	3	3
ADVANCED LIGHTWEIGHT TORPEDO (ALWT) AREA SURVEYS	3	4	4	4
ASW PREDICTION CHARTS	3	4	4	4
ASW PREDICTION REPORTS	1	2	0	0
ADVANCED LIGHTWEIGHT TORPEDO (ALWT) AREA REPORTS	3	3	3	3
BOTTOM LOSS UPGRADE (BLUG) PRODUCTS	40	44	3	3
AMBIENT NOISE UPGRADE (ANUG) PRODUCTS	12	12	0	0
APP DATA BASE UPDATES	1	1	4	4
FRONTAL STUDIES	3	3	3	3
SONAR ACUSTIC RESPONSE (SOAR) GRIDS	3	3	3	3
NUMBER OF LOW FREQUENCY ARRAY DATA BASE UPDATES	0	0	1	1
SONAR ARRAY CHARACTERIZATION CHARTS	22	0	0	0
SUBMARINE REFERENCE MANUALS	0	4	4	4
SONAR ARRAY CHARACTERIZATION REPORTS	2	0	0	0
STRAITS STUDIES	4	4	4	4
SPECIAL PROBLEM SUPPORT TO SUBMARINES	1	1	1	1
SHALLOW WATER ENVIRONMENTAL GUIDES	0	0	1	1

PROJECT: ENVIRONMENTAL DESCRIPTIONS

REQUIREMENT/OBJECTIVE: Collect oceanographic, geologic and geophysical data for inclusion in data base and other Fleet support products. Manage "Navy Standard" digital data bases such as the Generalized Digital Environmental Model (GDEM) and the Master Oceanographic Observation Data Set (MOODS). Manage the Air/Sea Interaction Drifting Buoy Program. Prepare special reports and products (such as Environmental Guides, and Oceanographic inputs to Special Operations Intelligence Folders (SOIFs)).

PROJECT EFFORTS:

- o Shipboard Surveys
- o Airborne Surveys
- o Drifting Buoy Data Collection

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

PERFORMANCE CRITERIA:	FY 88	FY 89	FY 90	FY 91
NUMBER OF GEOPHYSICAL SHIP SURVEYS	2	2	2	2
NUMBER OF AIRCRAFT OPERATIONS	2	2	2	2
NUMBER OF SPECIAL REPORTS	2	2	2	2
NUMBER OF SPECIAL SHIP/AIRCRAFT OPERATIONS	2	2	2	2
NUMBER OF MOODS UPDATES	0	3	1	1
NUMBER OF GDEM'S BUILT/UPDATES	0	1	1	1
NUMBER OF GEOACOUSTICS PRODUCTS	7	7	7	7
NUMBER OF DATA REPORTS	2	2	2	2
NUMBER OF ENVIRONMENTAL GUIDES	4	0	0	0
NUMBER OF ASID BUOY DEPLOYMENTS	1	2	2	2
NUMBER OF ALLIED ASW SURVEYS	1	1	3	3

ENVIRONMENTAL PREDICTION SUPPORT TO TACTICAL AND SURVEILLANCE

PROJECT: MINE WARFARE

REQUIREMENT/OBJECTIVE: Provide various Navy commands with a wide range of oceanographic information used to support Mine Warfare and mine countermeasures. Support Mine Warfare planning and operations in both deep and shallow water areas worldwide. Prepare specialized products to support Mine Warfare objectives, including:

- Mine Warfare Pilots
- CAPTOR Guides
- Planning Charts

PROJECT EFFORTS:

- o Shipboard Surveys (both Navy and Coast Guard)
- o Aircraft Surveys

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

PERFORMANCE CRITERIA:

NUMBER OF SOF STUDIES
NUMBER OF MINE WARFARE SUPPLEMENTS
NUMBER OF CAPTOR GUIDES
NUMBER OF MINE WARFARE REPORTS
NUMBER OF MINE WARFARE PILOTS

	FY 88	FY 89	FY 90	FY 91
NUMBER OF SOF STUDIES	8	16	16	16
NUMBER OF MINE WARFARE SUPPLEMENTS	0	4	4	4
NUMBER OF CAPTOR GUIDES	1	2	1	1
NUMBER OF MINE WARFARE REPORTS	9	9	9	9
NUMBER OF MINE WARFARE PILOTS	6	7	4	4

PROJECT: OCEANOGRAPHIC SUPPORT TO NAVAL EXERCISE AREAS (NEA)
OCEANOGRAPHIC DATA IN SUBMARINE TRIAL AREAS (ODISTA)

REQUIREMENT/OBJECTIVE: Collect Oceanographic, bathymetric and other environmental data in Submarine Test/Trial areas. Prepare charts, reports and other products to support test/trial programs.

PERFORMANCE CRITERIA:

WEAPONS RANGES CHARTS
SUBTRIAL AREA SITES SURVEYED
WEAPONS RANGES REPORTS
ODISTA CHARTS
SUBTRIAL AREA REPORTS
ODISTA SITES SURVEYED
WEAPONS RANGES SITES SURVEYED
ODISTA REPORTS
NUMBER OF TRIDENT/PK REPORTS
TRIDENT/PK REPORTS
SUBTRIAL AREA CHARTS

	FY 88	FY 89	FY 90	FY 91
WEAPONS RANGES CHARTS	0	4	0	0
SUBTRIAL AREA SITES SURVEYED	1	3	4	4
WEAPONS RANGES REPORTS	0	4	0	0
ODISTA CHARTS	2	1	1	1
SUBTRIAL AREA REPORTS	1	3	3	3
ODISTA SITES SURVEYED	2	1	1	1
WEAPONS RANGES SITES SURVEYED	1	0	0	0
ODISTA REPORTS	10	8	8	8
NUMBER OF TRIDENT/PK REPORTS	2	2	0	0
TRIDENT/PK REPORTS	1	8	5	5
SUBTRIAL AREA CHARTS	3	1	3	3

PROJECT: OCEAN MEASUREMENTS PROGRAM

REQUIREMENT/OBJECTIVE: Address the oceanographic/environmental data requirements of the SSBN Security Program. Determine data measurement and processing accuracy standards, develop survey techniques, identify instrumentation needs. Prepare reports, manuals and products to support SSN/SSBN operations.

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

PROJECT EFFORTS:

- o Shipboard Surveys
- o Airborne Surveys

PERFORMANCE CRITERIA:

	FY 88	FY 89	FY 90	FY 91
NUMBER OF SURVEY AIRCRAFT HOURS	400	400	400	400
NUMBER OF PHYSICAL OCEANOGRAPHY AND BIOLOGY REPORT	8	8	8	8
NUMBER OF SURVEY SHIP MONTHS	4	4	4	4
NUMBER OF SUBMARINE TACTICAL OCEAN REFERENCE MANUAL	5	3	3	3

PROJECT: ON-SCENE OCEANOGRAPHIC SYSTEMS SUPPORT

REQUIREMENT/OBJECTIVE: Provide Afloat Aviation forces, other at-sea combatants and ashore oceanographic/ASW support centers with a "stand-alone", real-time oceanographic and acoustic prediction capability. Support upgrades to deployed systems. Maintain the Fleet Geophysics Mission Program Library and the Oceanographic/Atmospheric Mission Library.

SYSTEMS SUPPORTED

- Tactical Environmental Support System (TESS)
- Integrated Carrier Acoustic Prediction System (ICAPS)
- Desk-Top/Hand Held Tactical Computers

PERFORMANCE CRITERIA:

	FY 88	FY 89	FY 90	FY 91
NUMBER OF ON-SCENE SYSTEM DOCUMENTS	45	50	50	50
NUMBER OF PREDICTION PRODUCTS	220	220	220	220
NUMBER OF ON-SCENE DATA BASES	30	30	30	30
NUMBER OF ON-SCENE SYSTEM SITE USERS	460	465	470	470

PROJECT: SURVEILLANCE SYSTEM SUPPORT

REQUIREMENT/OBJECTIVE: Conduct exploratory bathymetric/broad area oceanographic surveys; site and reconnaissance bathymetric, oceanographic and acoustic surveys. Prepare studies, analyses, chart, reports.

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

PERFORMANCE CRITERIA:

NUMBER OF SHIP SURVEY MONTHS
NUMBER OF ENVIRONMENTAL DATA REPORTS
NUMBER OF AREAS SURVEYED

FY 88	FY 89	FY 90	FY 91
4	4	4	4
2	2	2	2
2	2	2	2

PROJECT: TACTICAL ANALYSIS

REQUIREMENT/OBJECTIVE: Provide assistance to at-sea forces in planning and executing ASW exercises, with the goal of improving tactics based on full consideration of environmental factors. Analyze and predict environmental conditions. Define environmental effects on weapons systems and sensors. Provide on-site training to sensor operators and tacticians. Provide post-exercise reconstruction analysis and "lessons learned" for improvement of tactics.

PERFORMANCE CRITERIA:

NUMBER OF FLEET EXERCISES SUPPORTED
NUMBER OF CONTRIBUTIONS TO NAVAL TACTICAL PUBLICATIONS
NUMBER OF RECONSTRUCTION REPORTS

FY 88	FY 89	FY 90	FY 91
5	5	5	5
3	3	3	3
4	4	4	4

ENVIRONMENTAL PREDICTION SUPPORT TO TACTICAL AND SURVEILLANCE

PROJECT: SPACE OCEANOGRAPHY

REQUIREMENT/OBJECTIVE: Automate satellite data analysis procedures. Define oceanographic characteristics (surface/subsurface temperature, location of ocean fronts and eddies, Atmospheric Water Vapor Content, Surface wind speed, Ice edge and age, cloud location, density and movement) through the use of satellite data. Provide near-real-time oceanographic analysis products to operational forces at sea.

PERFORMANCE CRITERIA:

NUMBER OF MULTI-CHANNEL SEA SURFACE TEMP MSGS
NUMBER OF SEA SURFACE TEMP OBSERVA. (SAT IMAGES)
NUMBER OF OCEAN FRONTAL MSGS

FY 88	FY 89	FY 90	FY 91
0	120	120	1200
1700	2200	2200	2200
650	900	900	900

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

PROJECT: ARCTIC WARFARE

REQUIREMENT/OBJECTIVE: The Arctic program resources support the improved knowledge of environmental/acoustic conditions in the Arctic Region. The program includes data collection from ships, submarines, aircraft, and remote sensing of data from satellites. The goal of the program is to build and maintain high resolution environmental/acoustic data bases to support high quality acoustic performance predictions for Fleet operations. Data will be included in on-board tactical weapon and sensor systems and in on-board environmental publications such as Submarine Tactical Oceanographic Reference Manuals.

PERFORMANCE CRITERIA:

	FY 88	FY 89	FY 90	FY 91
NUMBER OF ACOUSTIC DATA PROCESSING/MODELS DEVELOPED	0	0	2	1
NUMBER OF LOGISTICS ICE CAMPS SUPPORTED	0	0	1	1
NUMBER OF OCEAN BUOYS	10	11	18	10
NUMBER OF AMBIENT NOISE/METEOROLOGICAL BUOYS	10	2	0	0
NUMBER OF ARCTIC GUIDES PRODUCED	1	1	2	1
NUMBER OF SUBMARINE TRACKS PROCESSED	0	10	10	10

ENVIRONMENTAL PREDICTION SUPPORT TO COMMAND AND CONTROL

PROJECT: ENVIRONMENTAL PREDICTION (SUPPORT TO SAFETY OF AVIATION/TACTICAL AVIATION)

REQUIREMENT/OBJECTIVE: Conduct necessary data collection and processing to identify current and predict future meteorological and oceanographic conditions on a local, regional, and global scale to the degree of accuracy required by strategic, tactical and support aircraft forces.

PERFORMANCE CRITERIA:

	FY 88	FY 89	FY 90	FY 91
NUMBER OF SURFACE WEATHER OBSERVATIONS	479,896	501,277	520,081	540,751
NUMBER OF UPPER AIR OBSERVATIONS	9,585	10,302	11,296	11,988

OBSERVATIONS:

NUMBER OF SURFACE WEATHER OBSERVATIONS
NUMBER OF UPPER AIR OBSERVATIONS

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

	FY 88	FY 89	FY 90	FY 91
ANALYSES AND FORECASTS:				
NUMBER OF LOCAL FORECASTS/WARNINGS	143,235	147,816	152,854	158,396
NUMBER OF TERMINAL AVIATION FORECASTS	74,839	79,950	82,829	87,063
NUMBER OF SATELLITE DATA ANALYSES	3,000	3,000	3,000	3,000
NUMBER OF OCEAN ACOUSTICS REPORTS	99,518	103,875	107,675	110,875
NUMBER OF SOUND FOCUSING PREDICTIONS	18,634	18,919	19,100	19,300
NUMBER OF COMPUTER FLIGHT PLANS	166,902	180,294	181,300	181,300
NUMBER OF FLIGHT WEATHER BRIEFINGS ISSUED (DD-175-1)	278,514	287,526	290,046	296,196
NUMBER OF FLIGHT PACKETS ISSUED	60,654	65,081	71,702	75,651
NUMBER OF VFR FLIGHT BRIEFINGS	1,800	1,800	1,800	1,800

PROJECT: ENVIRONMENTAL DATA PROCESSING AND DISSEMINATION

REQUIREMENT/OBJECTIVE: Provide, on an operational basis, numerical oceanographic products which address the day-to-day needs of Naval combatants at-sea. Test numerical techniques to solve oceanographic analytical and forecasting problems. Distribute oceanographic and meteorological data and products to ashore units within the Oceanography Command, to other DoD agencies and to Fleet units at-sea.

PERFORMANCE CRITERIA:

	FY 88	FY 89	FY 90	FY 91
NUMBER OF RADIOLOGICAL FALLOUT FORECASTS ISSUED	2,486	2,588	2,600	2,600
NUMBER OCEAN AREA WIND/SEA FORECASTS/WARNINGS ISSUED	29,854	32,175	32,875	33,375
NUMBER OF SATELLITE OCEAN THERMAL STRUCTURE ANALYSES ISSUED	787	787	787	787
NUMBER OF TROPICAL ALERTS/BULLETINS	585	685	685	685
NUMBER OF OPTIMUM TRACK SHIP ROUTING DAYS OF SUPPORT	20,537	21,310	22,133	23,133
NUMBER OF ELECTRO-OPTICS FORECASTS/ANALYSES ISSUED	20,591	21,403	21,931	22,066
NUMBER OF BALLISTIC WIND FORECAST/ATMOSPHERIC DENSITY FORECASTS	5,623	6,042	6,100	6,100
NUMBER OF CLIMATOLOGY/ASTRONOMICAL DATA PACKETS ISSUED	51,800	57,800	59,000	59,000
NUMBER OF SHIP WEATHER PACKETS ISSUED	1,800	1,800	1,800	1,800

Activity Group: Environmental/Prediction Support (continued)

III. Performance Criteria (continued)

PROJECT: POLAR OCEANOGRAPHY

REQUIREMENT/OBJECTIVE: Support Arctic Resupply efforts with accurate predictions of meteorological and ice conditions in the Arctic region. Support Strategic and Tactical surface/subsurface forces with accurate predictions of oceanographic and acoustic conditions. Identify/predict polar ice conditions for safety of navigation and tactical effectiveness.

PERFORMANCE CRITERIA:

	FY 88	FY 89	FY 90	FY 91
ICE ANALYSES	750	800	875	925
ICE & WEATHER FORECASTS	405	407	407	407
ICE ROUTING SERVICES	15	15	20	20
SEA ICE GRAPHICS	96	96	96	96
FLEET EXERCISES SUPPORTED	7	9	12	14
SAT DATA INTERPRETATIONS	771	890	1200	1200
WARNINGS	740	695	750	750
CLIMATOLOGY REPORTS	76	83	87	87
CNO COMMAND CENTER BRIEFS	117	156	156	156
SPECIAL PROJECTS ICE MSGS	254	295	254	254
SPECIAL PROJECTS RECONST.	2	4	4	4
SPECIAL PROJECTS BUOY PRED.	26	36	36	36
SPECIAL DRIFT FORECASTS	3	3	3	3
ANNUAL ICE PUBLICATION	3	4	4	4

AIRCRAFT SUPPORT:

	Avg. No. Operating Aircraft	No. Flying Hours	Avg. No. Operating Aircraft	No. Flying Hours
H-2 Operations	2	2	2	-
H-2 Operations	767	1,193	1,046	-
P-3 Operations	5	5	5	5
P-3 Operations	3,191	2,746	2,771	2,811

Activity Group: Environmental/Prediction Support (continued)

IV. Personnel Summary.

<u>End Strength (E/S)</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
A. <u>Military</u>				
Officer	299	318	334	334
Enlisted	1,492	1,615	1,518	1,507
B. <u>Civilian</u>				
	1,054	1,018	1,150	1,171
USDH	1,054	1,018	1,150	1,171

DEPARTMENT OF THE NAVY
OPERATION & MAINTENANCE, NAVY
EXHIBIT OP-5

Activity Group: U.S. NAVAL OBSERVATORY
Budget Activity: III - Intelligence and Communications

I. Description of Operations Financed

This budget request covers operating costs for the Naval Observatory (NAVOBSY) which is located in Washington, DC. The mission of the Naval Observatory is to make observations of and predict the positions of the sun, moon, planets and stars and to provide precise time, for use in navigation and positioning. Typical star and planet observing programs last between seven and ten years. The only two countries doing fundamental positional astronomy are the United States (NAVOBSY) and the Soviet Union observatories.

This effort has many applications, both military and civilian. Some of the Department of Defense (DoD) applications are: calibration of satellite navigation systems, orbit calculations and predictions, precise guidance in space, precise positioning using time synchronized systems, secure communications, sun and moon phenomena (rise and set, azimuths and altitudes) and earth rotation. Observations are taken at permanent sites in Washington, DC, Richmond, FL, Flagstaff, AZ and the Black Birch Astronomical Observatory, New Zealand. The NAVOBSY also uses the Radio Astronomical Facilities at Green Bank, WV and Fairbanks, AK under memorandums of understanding with the National Science Foundation and NASA for the real-time determination of Universal Time and polar motion.

The NAVOBSY sets the Time Standard for DoD and the United States. As single manager of Time for DoD, the establishment, maintenance and improvement of a clock system of high stability, reliability, and precision is required. NAVOBSY developed the Precise Time and Time Interval (PTTI) program to disseminate, distribute and transfer continuous time synchronization on a worldwide basis. This time synchronization is accomplished by portable clocks, by the Global Positioning System Satellites (which carry NAVOBSY time), by communications satellites, and by LASER. The NAVOBSY maintains Precise Time Reference stations around the world and monitors all radio navigation systems.

Activity Group: U.S. Naval Observatory (continued)

I. Description of Operations Financed (continued)

The NAVOBSY calculates and publishes various astronomical and navigational almanacs as well as special data required by the Navy, Defense Department, other Governmental agencies and the general public. Strategic organizations of DoD are routinely supported. NAVOBSY is the sole source of certified astronomical and timing data for legal and civil use. The NAVOBSY is the only observatory in the U.S. providing fundamental astronomical data and serves as the central source of such data for the government.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	FY 1989		FY 1990 Budget Request	FY 1991 Budget Request
		Amended Pres. Budget	Appro- priation		
Naval Observatory	10,249	9,907	9,807	11,528	11,919
Total	10,249	9,907	9,807	11,528	11,919

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate

10,791

2. Pricing Adjustments

321

A. Annualization of FY 1989 Direct Pay Raises

(54)

(1) Classified

49

(2) Wage Board

5

B. FY 1990 Direct Pay Raises

(62)

(1) Classified

61

(2) Wage Board

1

C. Stock Fund

(1)

(1) Non-fuel

1

D. Industrial Fund Rates

(29)

E. Other Pricing Adjustments

(177)

Activity Group: U.S. Naval Observatory (continued)

P. Reconciliation of Increases and Decreases (continued)

3. Program Increases	414
A. Annualization of FY 1989 Increases	(128)
(1) The cost of five additional civilian positions were assumed in FY 1989 for almanac functions formerly performed by Her Majesty's Nautical Almanac Office. U.S. Code requires publication of these almanacs.	128
B. One-Time FY 1990 Costs	(42)
(1) Procurement of non-OPM items in support of the scheduled FY 1990 construction of a large VLBI telescope in Hawaii.	42
C. Other Program Growth in FY 1990	(244)
(1) NAVOBSY is tasked to provide rapid service Earth Orientation Data in support of the DOD Global Positioning System (GPS), other guidance systems, navigation and positioning. The main source of data is the Very Long Baseline Interferometry System (VLBI) allowing 40-180 day predictions as required for autonomous operation. Until FY 1989 NAVOBSY relied on research telescopes belonging to universities, NASA and NOAA. FY 1990 plans call for a Navy-controlled VLBI network consisting of telescopes in West Virginia, Alaska, Hawaii and Florida. Additional funding in FY 1990 pays for operation and maintenance for existing radio telescopes and maintenance of communications links.	162

Activity Group: U.S. Naval Observatory (continued)

B. Reconciliation of Increases and Decreases (continued)

- (2) The Master Clock is being upgraded in response to real-time operational requirements for improved PTTI data from the Global Positioning System (GPS), other systems, and Navy and DOD labs. This upgrade replaces measuring systems, puts in fiber optics links, and interconnects Hydrogen-Masers, Mercury stored-ion frequency standards and Cesium clocks. The one nanosecond real-time capability requires continuing replacement of highly sensitive equipment by state-of-the-art systems as they become available. Since this (and the backup Master Clock in Florida) is the only DOD calibration facility for precise time and frequency, the requirements for continued precision are much more stringent than in any other system and the system requires the use of the most modern equipment on the market.

82

4. FY 1990 President's Budget Request

11,558

5. Pricing Adjustments

31

A. Annualization of FY 1990 Direct Pay Raises

(1) Classified

(32)

(2) Wage Board

29

B. FY 1991 Direct Pay Raises

3

(1) Classified

(107)

(2) Wage Board

104

(3) Foreign National Direct Hires

2

C. Industrial Fund Rates

1

D. Other Pricing Adjustments

(13)

(169)

Activity Group: U.S. Naval Observatory (continued)

B. Reconciliation of Increases and Decreases (continued)

6. Program Increases 117

A. Other Program Growth in FY 1991 (117)

(1) One additional compensable workday. 20

(2) Site surveys (astronomical measurements to determine the optimum permanent location) will be conducted in FY 1991 to support the permanent installation of an optical interferometer on a remote mountain top in the Western U.S. The optical interferometer will improve the positional accuracy of the brighter navigation stars by a factor of ten or more, as needed by space guidance systems and autonomous systems operations throughout DoD. This telescope is planned to be operational in late 1993. 97

7. Program Decreases -47

A. One-time FY 1990 costs (-47)

(1) FY 1990 purchase of materials to support construction of a VLBI telescope. -47

8. FY 1991 President's Budget Request 11,919

Activity Group: U.S. Naval Observatory (continued)

III. Performance Criteria.

PROJECT: TIME SERVICE

REQUIREMENT/OBJECTIVE: Provide precise time and time interval (PTI), earth rotation data and time synchronization services. Maintain DOD Master Clock. Act as DOL PTI manager (DOD Directive 5160.51). Satisfy short and long term accuracy requirements from Navy and other DOD components.

PROJECT EFFORTS: Monitor all DOD timed systems around the world. Disseminate timing data via satellite computer and by mail. Maintain and upgrade DOD Master Clock and time monitoring systems. Develop capability for 180 day predictions of earth rotation parameters. Provide calibration and operator training for DOD timed systems. Establish DOD PTI.

PERFORMANCE CRITERIA:

- Real-time Master Clock access capability of 1 nanosecond (ns) per day.
- Reference data on earth rotation with required accuracy and timeliness.
- Number of customers serviced with calibration and training.
- New Services introduced.
- Florida Master Clock back-up facility fully operational.
- Earth rotation VLBI facility fully operational.

PROJECT: ASTROMETRY

REQUIREMENTS/OBJECTIVE: Measure with appropriate telescopes, analyze and tabulate positions of stars, sun, moon and planets to required accuracy. Provide needed star position data and inertial reference frame to Navy and other DOD labs and systems. Improve accuracy and timeliness of data in response to system designer's requirements.

PROJECT EFFORTS: Observations with six telescopes in Washington, DC, Flagstaff, AZ and Black Birch, NZ. Improve accuracy and automation of telescopes. Conduct 10-year long observing series. Train data users in DOD in use of stellar references.

Activity Group: U.S. Naval Observatory (continued)

III. Performance Criteria (continued)

PROJECT: NAUTICAL ALMANAC

REQUIREMENT/OBJECTIVE: Calculate, tabulate, and publish positions of sun, moon, planets and navigation stars. Publish Astronomical, Nautical and Air Almanacs, Almanac for Computers, Floppy Almanac, sunrise/sunset, solar and lunar illustration tables, circulars, bulletins, and other publications on improve accuracy of calculations and tabular data in response to requirements. Make calculations on request for Navy and other DOD units. Advise DOD and other government agencies of astronomical phenomena.

PROJECT EFFORTS: Annual calculation, preparation, proofing and distribution of Almanacs. Calculation of background theories and tabular material. Daily circulation of special tables.

PERFORMANCE CRITERIA:

- Timely publication and distribution of Almanacs.
- Number of special tables in support of DOD operations.
- Number of customer queries answered.
- Number of planetary data collected.
- Number of new theoretical and calculational developments.

PROJECT: FLAGSTAFF STATION

REQUIREMENT/OBJECTIVE: Perform research in application of new technology to astronomic accuracy improvement. Observe faint objects for calibration. Maintain and improve expensive station telescopes, buildings, hardware and software.

PROJECT EFFORTS: Remain in forefront of scientific endeavor to enable NAVOBSY operations to satisfy modern technology requirements.

PERFORMANCE CRITERIA:

- Number of faint star observations.
- Accuracy of star and planetary satellite data.
- Number of new equipment brought on line.

Activity Group: U.S. Naval Observatory (continued)

III. Performance Criteria (continued)

PROJECT: ADMINISTRATION

REQUIREMENT/OBJECTIVE: Perform support services including control of classified material, records management and files, personnel, planning and direction of fiscal functions, operation of library.

PROJECT EFFORTS: Keep NAVOBSY in good operating condition.

PERFORMANCE CRITERIA:

-Satisfy Navy regulations and requirements.

IV. Personnel Summary.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
End Strength (E/S)				
A. <u>Military</u>				
Officer	7	11	19	30
Enlisted	7	8	8	8
	0	3	11	22
B. <u>Civilian</u>				
	122	131	131	141
USDH	120	129	129	129
FNDH	2	2	2	2

Department of the Navy
Operation and Maintenance, Navy
Exhibit OP-5

Activity Group: Maintenance of Real Property
Budget Activity: III - Intelligence and Communications

1. Description of Operations Financed.

This program provides maintenance, repair and minor construction of all buildings, structures, grounds and utility systems required at Naval Oceanography Command facilities, Naval Security and Investigative Command activities, Naval Telecommunications Command facilities, the Naval Observatory and other ancillary activities to permit assigned forces and tenants to perform their mission.

The major elements of this program are:

- o Facilities Maintenance - finances scheduled, day-to-day recurring maintenance, and emergency service work needed to preserve facilities.
- o Major Repairs - provides major repairs necessary to bring existing facilities into adequate condition to support assigned missions.
- o Minor Construction - finances the erection, installation or assembly of real property facilities; the addition, extension alteration, conversion or replacement of existing real property facilities; the relocation of real property facilities; and the installation of equipment which becomes part of a facility.

Activity Group: Maintenance of Real Property (continued)

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1989			FY 1990		FY 1991	
	FY 1988 Actual	Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request	Budget Request	
Facilities Maintenance	17,966	16,994	16,988	19,200	20,852	21,164	
Major Repair Projects	3,365	3,471	3,471	3,293	3,822	3,879	
Minor Construction	3,387	3,984	3,191	3,193	3,111	3,209	
Total	24,718	24,499	23,650	25,686	27,785	28,252	

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate

\$25,036

2. Pricing Adjustments

1,117

A. Annualization of FY 1989 Direct Pay Raises

- (1) Classified
- (2) Wage Board
- (3) Foreign National Direct

B. FY 1990 Direct Pay Raises

- (1) Classified
- (2) Wage Board
- (3) Foreign National Direct

C. Stock Fund

- (1) Non-Fuel

D. Industrial Fund Rates

E. FN Indirect Hire

F. Foreign Currency Adjustments

G. Other Pricing Adjustments

(92)
1
81
10
(149)
5
37
107
(15)
13
(313)
(138)
(708)
(33)

Activity Group: Maintenance of Real Property (continued)

R. Reconciliation of Increases and Decreases (continued)

3. Functional Program Transfers	234	
A. Transfers In	(234)	
(1) Intra-Appropriation	234	
(a) Decentralize the payment for hazardous waste disposal from BA-7 Field Operations, because DLA can now track charges at the activity level.		
4. Program Increases		1,970
A. Other Program Growth in FY 1990	(1,970)	
(1) Increase for facility projects deferred from FY 1989.	1,970	
5. Program Decreases		-1,852
A. One-Time FY 1989 Costs	(-820)	
(1) Large Scale Computer installation and site preparation at the Naval Oceanographic Office.	-200	
(2) Decrease for FY 1989 foreign currency increase for Australia.	-620	
B. Other Program Decreases in FY 1990	(-1,032)	
(1) Decreases in materials, supplies and equipment purchased in support of facilities maintenance.	-57	
(2) Estimated net savings from CA studies and Efficiency Reviews.	-720	
(3) Reduction in Physical Security Projects to meet funding levels.	-255	
6. FY 1990 President's Budget Request		\$27,785

Activity Group: Maintenance of Real Property (continued)

B. Reconciliation of Increases and Decreases (continued)

7. Pricing Adjustments		1,21
A. Annualization of FY 1990 Direct Pay Raises		
(1) Classified	(55)	
(2) Wage Board	1	
(3) Foreign National Direct	51	
B. FY 1991 Direct Pay Raises	3	
(1) Classified	(197)	
(2) Wage Board	8	
(3) Foreign National Direct	51	
C. Stock Fund	138	
(1) Non-Fuel	(21)	
D. Industrial Fund Rates	27	
E. FN Indirect Hire	(284)	
G. Other Pricing Adjustments	(158)	
	(300)	
8. Program Increases		31
A. Other Program Growth in FY 1991	(31)	
(1) One additional CIVPERS workday.	31	
9. Program Decreases		- 85
A. Other Program Growth in FY 1991	(-585)	
(1) Net savings estimated from scheduled CA studies and implementation of MEOs.	-80	
(2) Deferral of major repair projects.	-325	
(3) Reduction in physical security projects to meet funding levels.	-180	
10. FY 1991 President's Budget Request		\$28, 52

Activity Group: Maintenance of Real Property (continued)

III. Performance Criteria.

Maintenance of Real Property
Backlog, Maint/Repair (\$000)
Total Buildings (KSF)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	12,077	14,273	17,196	20,379
	12,702	12,702	12,705	12,705

IV. Personnel Summary.

A. Military

Officer
Enlisted

	<u>56</u>	<u>63</u>	<u>58</u>	<u>58</u>
	1	1	-	-
	55	62	58	58

B. Civilian

USDH
FNDH
FNTH

	<u>314</u>	<u>284</u>	<u>265</u>	<u>248</u>
	146	116	104	87
	96	93	89	89
	72	75	72	72

Department of the Navy
Operation and Maintenance, Navy
Exhibit OP-5

Activity Group: Base Operations
Budget Activity: III -- Intelligence and Communications

I. Description of Operations Financed.

This program group provides the base support services and material required for Naval Oceanography Command facilities, Naval Security and Investigative Command activities, Naval Telecommunications Command facilities, the Naval Observatory, and other ancillary activities to permit assigned forces and tenants to perform their mission.

The major elements of this program are:

- o Base Communications - Includes costs for administrative telephones, telecommunications centers, industrial security networks, and paging networks.
- o Utility Operations - Includes operating expenses for purchased electricity, electricity generating plants, purchased steam and hot water, heat plants, utility distribution systems, waste systems, air conditioning and refrigeration plants.
- o Personnel Operations - Support required for personnel related functions including expenses for:
 - Bachelor Housing Operations and Furnishings - provides support for the operation of barracks and the purchase and maintenance of personnel support equipment related to this housing.
 - Other Personnel Support - provides for mess halls, sales activities, laundry and dry cleaning facilities.
 - Morale Welfare and Recreation - provides authorized appropriated fund support for shore based recreation activities.
 - Station Hospitals, Medical and Dental Clinics - direct and indirect health care costs for Health Care facilities not under the financial control of the Navy Medical Command.
 - Human Goals - provides support for programs which focus on improving organizational and individual effectiveness and the administrative support of the Alcohol and Drug programs.

Activity Group: Base Operations (continued)

1. Description of Operations Financed (continued)

- c Base Operations - Mission - Support for those Base Operations functions which are required in direct support of the mission of the base. For example, Fleet Training Support, Logistics Support, etc. Expenses are included for the following functions:
 - Retail Supply Operations - In addition to standard supply functions, this item includes the procurement, receipt, storage and issue of bulk liquid fuel, including operating aircraft fuel servicing facilities. Additionally, waterfront operations such as handling incoming and outgoing cargo and loading/unloading live ammunition onto and from combatant vessels are included.
 - Maintenance - Installation Equipment - provides for maintenance of major shore based equipment including service and miscellaneous craft, construction equipment (non-deployable), weapons, electronic engineering, and fleet moorings.
 - Other Base Services - provides for the maintenance and operation of vehicles/other transportation equipment, port services (includes navigational assistance to ships, operation of service craft, degaussing operations, and oil spillage cleanup).
 - Base Operations - Ownership - Support required at shore bases regardless of type of mission being performed which must be sustained to have a functioning base. Expenses are included for the following functions:
 - Other Engineering Support - Public Works Department Administration, engineering services, custodial services, refuse/garbage collection and disposal, snow removal, rental and leasing of real property, and fire protection and firefighting for Naval activities and their tenants.
 - Administration - provides support related to financial/resource management, civilian manpower management, and maintaining military personnel records.
 - Automated Data Processing - provides analysis, programming, equipment rental, operations and maintenance, contractual services and supplies.
 - Hazardous Waste Material Handling - includes personnel, supplies and training associated with the identification and disposal of hazardous wastes.
 - Audiovisual - provides supplies and services required for audiovisual support.

Activity Group: Base Operations (continued)

I. Description of Operations Financed (continued)

- Physical Security - provides shore base physical security.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	FY 1989			FY 1990 Budget Request	FY 1991 Budget Request
		Amended Pres. Budget	Appro- priation	Current Estimate		
Base Communications	7,520	6,426	6,386	7,120	7,860	8,107
Utility Operations	39,395	37,634	37,617	38,600	40,355	38,932
Personnel Operations	5,197	5,068	4,068	4,474	4,755	4,964
Base Ops, Mission	12,406	12,190	11,937	11,698	11,801	12,252
Ownership Operations	31,139	30,513	30,498	31,563	31,951	33,139
Total, Base Operations	95,657	91,831	90,566	93,455	96,722	97,394

2. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate

\$93,405

2. Pricing Adjustments

5,606

A. Annualization of FY 1988 Direct Pay Raises

(1) Classified

(2) Wage Board

(3) Foreign National Direct

(248)

99

80

69

O&M, N

3-95

Activity Group: Base Operations (continued)

R. Reconciliation of Increases and Decreases (continued)

B. FY 1989 Direct Pay Raise	(655)
(1) Classified	240
(2) Wage Board	37
(3) Foreign National Direct	378
C. Stock Fund	(-620)
(1) Fuel	-621
(2) Non-Fuel	1
D. Industrial Fund Rates	(555)
E. FN Indirect	(382)
F. Foreign Currency Adjustments	(2,896)
G. Other Pricing Adjustments	(1,510)
 3. Functional Program Transfers	 560
A. Transfers In	(590)
(1) Intra-Appropriation	590
(a) Transfer of Defense Data Network (DDN) resources from BA-3, Leased Communications to individual users to encourage savings by making users directly responsible for paying for their own DDN usage.	(590)
B. Transfers Out	(-30)
(1) Intra-Appropriation	-12
(a) SLUC funds to rent commercially leased space realigned to BA-9, Base Operations Support, for direct payment to General Services Administration Federal Building Fund.	(-12)
(2) Inter-Appropriation	-18
(a) Transfer to the O&M, Army appropriation to support the Defense Systems Management College, which will oversee the DoD education and training program for the acquisition workforce.	(-18)

Activity Group: Base Operations (continued)

B. Reconciliation of Increases and Decreases (continued)

4. Program Increases		1,039
A. Other Program Growth in FY 1989	(1,039)	
(1) Increase in utilities due to new facilities and computers.	191	
(2) Increased maintenance support for new computers.	61	
(3) Increase for MWR support at remote installations.	361	
(4) Increase for an information system computer security risk assessment and to eliminate vulnerabilities.	426	
5. Program Decreases		-3,333
A. Other Program Decreases in FY 1990	(-3,958)	
(1) Decrease reflects reduction in energy utilization through energy conservation.	-1,021	
(2) Net savings estimated from CA studies and Efficiency Reviews	-616	
(3) Reduction in purchased equipment, supplies and services.	-2,315	
6. FY 1990 President's Budget Request		\$96,712
7. Pricing Adjustments		3,530
A. Annualization of FY 1990 Direct Pay Raises	(201)	
(1) Classified	87	
(2) Wage Board	36	
(3) Foreign National Direct	78	

Activity Group: Base Operations (continued)

R. Reconciliation of Increases and Decreases (continued)

B. FY 1991 Direct Pay Paise	(799)	219
(1) Classified	366	
(2) Wage Board	49	
(3) Foreign National Direct	384	
C. Stock Fund	(244)	
(1) Fuel	211	
(2) Non-fuel	33	
D. Industrial Fund Rates	(470)	
E. FN Indirect	(449)	
G. Other Pricing Adjustments	(1,367)	
8. Program Increases		219
A. Other Program Growth in FY 1991	(219)	
(1) Increases in utilities due to new facilities and new computers.	83	
(2) Increased maintenance support for new computers.	17	
(3) One extra CIVFERS workday in FY 1991.	119	
9. Program Decreases		-3,077
A. Other Program Decreases in FY 1991	(-3,077)	
(1) Decrease reflects reduction in energy utilization through energy conservation.	-2,538	
(2) Reduction in purchased material, supplies and services.	-375	
(3) Net savings estimated for CA studies and Efficiency Reviews.	-164	
10. FY 1991 President's Budget Request		\$97,394

Activity Group: Base Operations (continued)

III. Performance Criteria.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Operations of Utilities</u>				
Total Energy Consumed (MBTU's)	5,288,947	5,252,308	5,277,940	5,302,445
Total Non-Energy Consumed (000 Gals)	883,904	899,346	899,364	898,994
<u>Base Communications</u>				
Number of Instruments	15,868	15,866	15,886	15,866
Number of Mainlines	8,011	7,839	7,841	8,021
Daily Average Message Traffic	155,495	155,501	155,479	155,479
<u>Personnel Operations</u>				
Bachelor Housing (\$000)	393	386	405	415
No. of Officer Quarters	84	84	84	84
No. of Enlisted Quarters	1,315	1,315	1,315	1,315
<u>Other Personnel Support (\$000)</u>				
Population Served, Total	3,570	3,253	3,154	3,278
(Military, E/S)	11,461	11,340	11,246	11,157
(Civilian, E/S)	8,433	8,312	8,218	8,129
	3,028	3,028	3,028	3,028
<u>Morale, Welfare & Rec (\$000)</u>				
Population Served (Total)	1,234	835	1,196	1,271
(Military, E/S)	20,697	20,576	20,482	20,393
(Civ/Dep, E/S)	8,433	8,312	8,218	8,129
	12,264	12,264	12,264	12,264

Activity Group: Base Operations (continued)

III. Performance Criteria (continued)

<u>Base Operations--Mission</u>				
Retail Supply Oper (\$000)	4,422	4,334	4,321	4,466
Line Items Carried (000)	148	148	148	148
Receipts (000)	183	213	213	213
Issues (000)	228	226	226	226
Maint of Instal Equip (\$000)	562	461	569	599
Other Base Services (\$000)	7,422	6,903	6,911	7,187
No. of Motor Vehicles, Total	1,758	1,756	1,756	1,756
(Owned)	1,032	1,009	1,009	1,009
(Leased)	726	747	747	747
<u>Ownership Operations</u>				
Other Engineering Sup (\$000)	13,970	14,264	13,779	14,224
Administration (\$000)	14,881	14,507	15,314	15,936
Number of Bases, Total	85	85	85	85
(CONUS)	49	49	49	49
(O/S)	36	36	36	36
Physical Security (\$000)	2,288	2,792	2,858	2,979

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>

IV. Personnel Summary.

<u>A. Military</u>				
Officer	1,166	1,221	1,184	1,162
Enlisted	163	151	154	154
	1,003	1,070	1,030	1,008
<u>B. Civilian</u>				
	1,247	1,205	1,208	1,208
USDR	732	724	702	702
FNDH	320	298	318	318
FNTH	195	183	188	188

SUMMARY OF REQUIREMENTS BY ACTIVITY GROUP

Budget Activity 4: Airlift and Sealift

	FY 1988				FY 1989				FY 1990				FY 1991			
	Personnel E/S		O&M,N		Personnel E/S		O&M,N		Personnel E/S		O&M,N		Personnel E/S		O&M,N	
	Mil	Civ	Funding		Mil	Civ	Funding		Mil	Civ	Funding		Mil	Civ	Funding	
Sealift Prepositioning/Surge	152	425	520,859		154	426	546,523		114	404	458,121		114	395	478,570	
TOTAL	152	425	520,859		154	426	546,523		114	404	458,121		114	395	478,570	

Department of the Navy
Operation and Maintenance, Navy

Budget Activity: IV Airlift and Sealift (SUMMARY)

1. Description of Operations Financed.

The Sealift Prepositioning and Surge program provides the worldwide sealift capability to deploy combat forces and supporting material and cargo that may be required to meet national contingency objectives. The program is defined in two major categories, Sealift Prepositioning and Sealift Surge. Sealift Prepositioning includes forward deployed Prepositioning Ships (PREPOS), which carry selected equipment, munitions and supplies for all U.S. Armed Services. In FY 1990, 9 of the 12 total PREPO ships previously funded by the Navy within this Budget Activity will be transferred to the cognizant user service (Army-6, Air Force-3). The 13 Maritime Prepositioning Ships (MPS) are divided into 3 operating squadrons, each of which carries equipment, POL, and all other cargo required to support a Marine Amphibious Brigade (MAB) for 30 days of combat operations.

The Sealift Surge program includes several efforts which collectively provide the sealift capability to onload, transport and discharge troops, equipment, POL, and cargo from the U.S. to worldwide combat operations locations. Movement of the pre-designated Army divisions will be accomplished by Fast Sealift Ships (FSS/TAKR). Two hospital ships (TAH), delivered during FY 1987, provide the ability to conduct casualty medical treatment in areas immediately adjacent to combat operations.

The Military Sealift Command (MSC), an integral part of the sealift program, moved from industrial funding to direct funding in FY 1988. Operations funded include engineering and technical support for the sealift mission. MSC also serves as the contracting agent for ship charters for the Department of Defense.

In FY 1989 funding responsibility for maintaining the Ready Reserve Fleet (RRF) was transferred to the Maritime Administration (MARAD) in the Department of Transportation. This responsibility includes the acquiring of additional ships, as well as all ancillary costs associated with the management of the Ready Reserve Fleet. Funds needed to accomplish these functions are appropriated to the Maritime Administration. All available audit savings have been incorporated into the following budget estimates.

II. Financial Summary (Dollars in Thousands) -

A. Activity Group Breakout:

	FY 1989			FY 1990 Budget Request	FY 1991 Budget Request
	FY 1988 Actual	Amended Pres. Budget	Appro- piation	Current Estimate	
TOTAL-Activity Group	520,859	546,629	546,198	549,523	478,570

Amount
\$546,629

B. Reconciliation of Increases and Decreases.

1. FY 1989 Amended President's Budget Request

-431

2. Congressional Adjustments

A. ADP Systems

-306

B. A-76 Savings

-125

3. FY 1988 Appropriated

546,198

1,194

4. Pricing Adjustments

A. FY 1989 2.1% Pay Raise

(291)

1) Classified

291

B. Industrial Fund Rates

903

13,212

5. Program Increases

A. Sealift Prepositioning/Surge

13,212

6. Program Decreases

A. Sealift Prepositioning/Surge

-14,081

-14,081

Budget Activity: 4 (Summary)

6. FY 1989 Current Estimate		\$547,117
7. Pricing Adjustments		
A. Annualization of FY 1989 Pay Raise	(51)	-10,615
1) Classified	51	
B. FY 1990 Direct Pay Raise	(430)	
1) Classified	430	
C. Stock Fund	(-24)	
1) Non-Fuel	-24	
D. Industrial Fund Rates	-12,731	
E. Other Pricing Adjustments	1,659	
8. Functional Program Transfers		
A. Sealift Prepositioning/Surge	-79,602	-79,602
9. Program Increases		
A. Sealift Prepositioning/Surge	12,683	12,683
10. Program Decreases		
A. Sealift Prepositioning/Surge	-10,868	-10,868
11. FY 1990 President's Budget Request		458,121
12. Pricing Adjustments		
A. Annualization of FY 1990 Pay Raise	(104)	20,281
1) Classified	104	
B. FY 1991 Direct Pay Raise	(450)	
1) Classified	450	
C. Stock Fund	(31)	
1) Non-Fuel	31	
D. Industrial Fund Rates	18,296	

Budget Activity: 4 (Summary)

E. Other Pricing Adjustments	1,380	
13. Functional Program Transfers		83
A. Sealift Prepositioning/Surge		8,552
14. Program Increases	6,552	
A. Sealift Prepositioning/Surge		-8,447
15. Program Decreases	-8,447	
A. Sealift Prepositioning/Surge		\$478,570
16. FY 1990 President's Budget Request		

Department of the Navy
Operation and Maintenance, Navy

Activity Group: Sealift Prepositioning and Surge
Budget Activity: IV Airlift and Sealift

1. Description of Operations Financed.

The Sealift Prepositioning and Surge program provides the worldwide sealift capability to deploy combat forces and supporting material and cargo that may be required to meet national contingency objectives. The program is defined in two major categories, Sealift Prepositioning and Sealift Surge. Sealift Prepositioning includes forward deployed Prepositioning Ships (PREPS), which carry selected equipment, munitions and supplies for all U.S. Armed Services. In FY 1990, 9 of the 12 total PREPS ships previously funded by the Navy within this Budget Activity will be transferred to the cognizant user service (Army-6, Air Force-3). The 13 Maritime Prepositioning Ships (MPS) are divided into 3 operating squadrons, each of which carries equipment, POL, and all other cargo required to support a Marine Amphibious Brigade (MAB) for 30 days of combat operations.

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IV. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout:

	FY 1989			FY 1990	FY 1991
	Amended	Appropriation	Current	Budget	Budget
	Pres.	Estimate	Estimate	Request	Request
	Budget				
	443,789	443,789	451,489	357,303	370,119
Prepositioning Forces	52,948	52,760	56,702	62,841	69,221
Sealift Surge	49,892	49,649	38,332	37,977	39,230
MSC Headquarters					
<u>TOTAL-Activity Group</u>	<u>520,859</u>	<u>546,198</u>	<u>546,523</u>	<u>458,121</u>	<u>478,570</u>

B. Reconciliation of Increases and Decreases:

	Amount
1. FY 1989 Current Estimate	546,523
2. Pricing Adjustments	-10,615
A. Annualization of the FY 1989 4.1% Pay Raise	(51)
1) Classified FY 1990 Pay Raise	51
B. FY 1990 Direct Pay Raise	(430)
1) Classified	430
C. Stock Fund	(-24)
1) Non-Fuel	-24
D. Industrial Fund Rates	(-12,731)
E. Other Pricing Adjustments	(1,659)
3. Functional Program Transfers	
A. Transfers-Out	(-79,602)
1) Intra-Appropriation	-102
a) Transfer of Standard Level User Charges (SLUC)	-102
	-79,602

Activity Group:
Sealift Prepositioning/Surge (cont'd)

To the Federal Building Fund (Budget Activity		
9) for occupation of leased spaces.		
2) Inter-Appropriation	(-79,500)	
b) Transfer of nine (9) Prepositioning Force	-79,500	
ships to the cognizant user service (Army-6,		
Air Force-3).		
4. Program Increases In FY 1990		12,683
A. One-Time FY 1990 Costs	(100)	
1) Increase for modifications to MPS ships not	100	
recoverable through ship per diem rates.		
B. Other Program Growth	(12,583)	
1) Increase in per diem days for Prepositioning	5,173	
Force Ships by 16 days and the annualization of		
increased fixed operating costs of the Fast		
Sealift Ships (FSS).	246	
2) Increase provides for the maintenance and storage		
of the portion of the seasheds received in FY 1990		
which were procured in FY 1989. The delivery of		
the seasheds will be phased over two years (FY		
1990 and FY 1991).	3,095	
3) Increase provides for the required engineering		
modifications and installation of an Offshore		
Petroleum Discharge System (OPDS) on an RRF ship.		
4) Increase in NSF Supplies/Materials and Equipment	3,174	
support for the MPS Navy Support Equipment and		
Afloat Prepositioning Force (APF) Basic		
Maintenance Cycle.		
5) Increase in contract costs associated with engineering	895	
efforts geared to improving overall sealift		
operations and integration with other services.		

Activity Group:
Sealift Prepositioning/Surge (cont'd)

5. Program Decreases in FY 1990		-10,868
A. One-Time FY 1989 Costs		
1) Decrease in design, development and experimental expenses associated with the MSC RDT&E ship programs.	(-1,366) -1,366	
B. Other Program Decreases		
1) Reduction of 22 civilian end strength due to the DoD Inspector General initiative to reduce administrative oversight (Van Der Schaaf Study).	(-9,502) -770	
2) MSC Headquarters revises and reprints its major directives and instructions every two years. Decrease reflects completion of the printing effort started in FY 1988.	-138	
3) Reduction in travel due to management efforts to reduce travel costs.	-3	
4) Decrease reflects no installation of any modular fuel/cargo delivery systems and a reduction in the associated marine architecture engineering support.	-2,711	
5) Reduction in the material support required for MPS exercises	-225	
6) Decrease in Medical Treatment Facility inventory requirements.	-2,500	
7) Reduction in the contractor support required during the MPS Basic Maintenance Cycle.	-1,392	
8) Decrease in the funding required for the Mobility Planning Execution System (MOPEX).	-1,344	
9) Travel requirements based on decrease in the number of exercises conducted on the MPS ships.	-419	
6. FY 1990 President's Budget Request		458,121
7. Pricing Adjustments		
A. Annualization of the FY 1990 Pay Raise	(104) 104	20,261
B. FY 1991 Direct Pay Raise	(450)	

Activity Group:
Sealift Prepositioning/Surge (cont'd)

1) Classified	450	
C. Stock Fund	(31)	
1) Non-Fuel	31	
D. Industrial Fund Rates	(18,296)	
E. Other Pricing Adjustments	(1,380)	
8. Functional Transfers		83
A. Transfers-In	(83)	
1) Realignment from NAVTELCOM, Budget Activity 3 of funds for installation/subscriber costs associated with Defense Data Network.	93	
9. Program Increases in FY 1991		8,552
A. One-Time Program Growth in FY 1991	(1,519)	
1) Increase provides for one additional paid day.	73	
2) Increase provides for the exercise activation of the two T-AVBs.	1,545	
B. Other Program Growth	(6,933)	
1) Increase provides additional maintenance of seasheds procured in FY 1989 and delivered in FY 1990.	867	
2) Increase provides for the printing of MSC Headquarters major instructions and directives.	76	
3) Increase reflects installation of a modular fuel unit and a cargo delivery system on an RRF vessel and the required marine architecture support for the installations on the vessel.	3,564	
4) Biennial Maintenance Cycle contract on MSE equipment	1,330	
5) Increase in NSF Supplies/Materials and Equipment support for MPS Navy Support Equipment and APF Basic Maintenance Cycle related efforts and Exercises.	976	

Activity Group:
Sealift Repositioning/Surge (cont'd)

-8,447

10. Program Decreases in FY 1991

A. One-Time FY 1990 Costs

- 1) Decrease for modifications to MPS ships not recoverable through ship per diem rates.

(-103)
-103

B. Other Program Decreases

- 1) Decrease reflects reduced level of effort for cyclical retrofitting of the MPS equipment and support services.
- 2) Decrease in the cost of cyclical replacement of shelf-life dated supplies carried in the Medical Treatment Facilities on board the Hospital Ships.
- 3) Reduction in material and other support services required for MPS ship exercises based on a decrease in the scope of the exercises.
- 4) Reduction of 9 civilian end strength due to the DoD Inspector General initiative to reduce administrative oversight (Van Der Schaaf Study).

(-8,344)
-7,112

-295

-514

-423

\$478,570

11. FY 1991 Current Estimate

Activity Group:
Sealift Prepositioning/Surge (cont'd)

III. Performance Criteria.	FY 1988	FY 1989	FY 1990	FY 1991
(# of ships/\$000)				
1. Prepositioning Forces (PREPO)	12/92,561	12/120,095	3/21,955	3/21,937
2. Maritime Prepositioning Ships (MPS)	13/252,174	13/311,960	13/321,474	13/332,625
3. Ready Reserve Fleet (RRF)	91/76,280	RRF transferred to MARAD in FY 1989		
4. Fast Sealift Ships (FSS/TAKR)	8/19,524	8/30,183	8/33,872	8/40,588
5. T-AVB	2/2,900	2/2,363	2/2,445	2/4,067
6. Hospital Ships (TAH)	2/6,785	2/9,231	2/10,369	2/10,509

IV. Personnel Summary:

End Strength (E/S)	FY 1988	FY 1989	FY 1990	FY 1991
A. Military	152	154	161	158
Officer	41	48	47	44
Enlisted	111	106	114	114
B. Civilian	425	426	404	395
USDH	425	426	404	395