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



AD-A205 526

SUBMITTED TO CONGRESS JANUARY 1989

OPERATION & MAINTENANCE, NAVY

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BOOK 2 OF 4

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This report is to be distributed as follows:

BUDGET ACTIVITY 7
CENTRAL SUPPLY AND MAINTENANCE

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Budget Activity 7: Central Supply & Maintenance

Department of the Navy
Operation and Maintenance, Navy
Summary of Requirements by Activity Group

	FY 1988				FY 1989				FY 1990				FY 1991				Book-
	E/S Mil	E/S Civ	O&M,N Funding	E/S Mil	E/S Civ	O&M,N Funding	E/S Mil	E/S Civ	O&M,N Funding	E/S Mil	E/S Civ	O&M,N Funding	E/S Mil	E/S Civ	O&M,N Funding	BA- Page	
Naval Air Systems Command	807	5,375	2,187,010	954	5,302	2,061,993	983	5,089	2,112,267	991	5,275	2,171,387					2-7008
Aircraft Rework & Maintenance			1,032,705			1,032,204			1,058,723			1,066,595					2-7019
Air-Launched Weapons			106,786			95,402			96,716			107,158					2-7031
Rework and Maintenance			226,699			219,470			229,943			233,427					2-7044
Other Aviation Systems Maint			25,000			17,777			19,556			19,366					2-7052
Maintenance Support			66,378	388	1,585	66,377	418	1,726	69,810	426	1,831	79,382					2-7059
Procurement Operations	348	1,616	22,622	31	495	22,386	31	495	23,334	31	495	23,873					2-7064
Command and Administration	27	503	300,509	533	3,242	268,037	532	2,868	239,179	532	2,949	250,754					2-7075
Field Operations	430	3,256	161,647	2		132,738	2		157,918	2		167,456					2-7104
Logistics Support Activities	2		783			606			606			404					2-7108
Industrial Preparedness			99,149			75,339			93,137			100,688					2-7123
Engineering & Support Servs			79,401			75,382			66,402			71,452					2-7130
Contractor Technical and			2,758			1,715			1,624			2,549					2-7135
Maintenance Support			18,275			13,024			15,403			16,271					2-7139
ASW Systems Support			44,298			43,536			40,118			41,986					
Maintenance of Real Property																	
Base Operations																	
Naval Sea Systems Command	1,488	10,175	1,974,257	2,199	10,255	1,816,207	2,202	10,587	2,088,933	2,201	11,059	2,174,530					
Ship-Launched Weapons			140,633			136,792			167,949			176,137					2-7144
Rework and Maintenance			140,267			149,677			185,013			196,240					2-7156
ASW System Maintenance			271		238	211,057		236	252,595		236	267,348					2-7178
Other Ship Systems Maint			3,012			2,268			6,570			5,638					2-7214
Intermediate Maintenance			145,919	304	61	133,591	304	72	181,606	304	72	181,494					2-7219
Maintenance Support	2	53	243,970	609	5,684	242,438	605	6,095	280,887	604	6,333	306,302					2-7261
Procurement Operations	667	5,522	30,357	44	500	25,101	43	500	25,396	43	500	26,275					2-7274
Command and Administration	37	500	200,882	648	3,665	202,984	649	3,577	193,022	649	3,811	211,516					2-7279
Field Operations	645	3,714	340,537	75	107	283,656	75	107	298,144	75	107	296,787					2-7294
Logistics Support Activities	65	115	8,883			676			1,529			1,530					2-7328
Industrial Preparedness			291,958	103		257,376	110		319,003	110		329,765					2-7336
Engineering & Support Servs	72		45,914			14,591			58,530			74,165					2-7381
Contractor Technical and			72,528			19,634			22,617			24,258					2-7391
Maintenance Support			21,184			77,823	416		79,087	416		77,075					2-7404
ASW Systems Support			74,572														2-7411
Maintenance of Real Property																	
Base Operations																	
Naval Supply Systems Command	2,042	20,299	1,273,407	1,843	20,386	1,274,732	1,852	20,918	1,373,087	1,857	21,010	1,381,363					
Supply Operations	312	7,294	271,437	312	7,372	286,515	310	7,529	319,657	310	7,557	298,722					2-7422
Inventory Control Operations	239	5,701	247,104	249	5,529	226,682	255	5,905	228,107	255	5,905	239,855					2-7430
Procurement Operations	128	739	57,114	145	749	53,091	152	759	59,557	153	759	53,579					2-7438
Command and Administration	67	301	44,852	69	301	45,439	69	301	67,767	69	301	79,010					2-7444
Field Operations	17	357	12,556	21	357	12,016	21	361	14,781	21	361	15,195					2-7449
Servicewide Transportation			374,371			375,120			390,369			406,123					2-7453
Retail Sales Operations	1,276	3,026	92,410	1,042	3,084	97,895	1,040	3,100	102,910	1,044	3,164	106,413					2-7462
Maintenance of Real Property	211		28,344		237	22,818		237	30,570		237	28,597					2-7471
Base Operations	3	2,670	142,319	5	2,767	155,156	5	2,726	159,369	5	2,726	163,869					2-7477

Department of the Navy
Operation and Maintenance, Navy

Summary of Requirements by Activity Group

Budget Activity 7: Central Supply & Maintenance

	FY 1988				FY 1989				FY 1990				FY 1991				Book-- BA- Page
	E/S Mil	E/S Clv	OSM,N Funding	E/S Mil	E/S Clv	OSM,N Funding	E/S Mil	E/S Clv	OSM,N Funding	E/S Mil	E/S Clv	OSM,N Funding	E/S Mil	E/S Clv	OSM,N Funding	OSM,N Funding	
Naval Facilities Engineering Command	1,113	4,757	442,786	1,136	4,489	408,374	1,149	4,517	328,489	1,159	4,508	331,792					
Command and Administration	40	303	18,903	43	306	16,797	42	306	17,458	42	306	17,710					2-7485
Field Operations	139	1,449	168,885	139	1,139	160,200	139	1,254	56,497	139	1,239	57,146					2-7489
Logistics Support Activities			77,923			48,099			79,725			73,068					2-7502
Maintenance of Real Property	58	1,415	87,588	57	1,441	95,102	57	1,349	86,115	57	1,360	89,993					2-7516
Base Operations	876	1,590	89,499	899	1,603	88,176	911	1,608	88,694	921	1,603	93,875					2-7521
Space Warfare Systems Command	657	1,999	402,961	692	2,219	231,622	686	2,320	255,843	686	2,394	262,440					
Electronic Systems																	
Network & Maintenance			9,225			11,459			13,272			13,612					2-7528
Maintenance Support			4,695			3,240			7,951			7,603					2-7537
Other Aviation Systems Maint			3,358			3,414			5,452			5,654					2-7547
Procurement Operations	313	724	44,614	311	858	44,159	310	954	53,757	310	1,029	59,336					2-7553
Command and Administration	15	179	12,539	15	175	11,305	15	175	10,254	15	175	12,123					2-7560
Field Operations	328	1,096	77,510	366	1,186	80,329	361	1,191	88,926	361	1,190	86,435					2-7564
Logistics Support Activities			13,674			11,833			8,844			8,799					2-7573
Industrial Preparedness			25			95			114			121					2-7583
Engineering & Support Servs			31,254			32,856			34,864			35,599					2-7586
Contractor Technical and																	
Maintenance Support			2,834			2,475			6,749			7,405					2-7621
ASW Systems Support	1		178,078			6,234			6,379			6,734					2-7631
Maintenance of Real Property			7,832			6,571			19,281			19,029					2-7636
Base Operations			17,323			17,632											
Chief of Naval Operations (OP-098)	5	91	28,952	71	131	34,791	71	131	32,884	71	131	30,062					
Field Operations	5	91	26,745	71	131	32,207	71	131	30,471	71	131	27,546					2-7646
Base Operations			2,207			2,584			2,413			2,516					2-7665
Assistant for Administration to the Deputy Under Secretary of the Navy	8	32	10,944	9	37	11,712	9	37	12,711	9	37	13,152					
Command and Administration			8,430			8,680			9,899			10,356					2-7670
Field Operations	8	32	2,514	9	37	3,032	9	37	2,812	9	37	2,796					2-7677
Chief of Naval Operations (OP-82)																	
Industrial & Stock Fund						472,315			450,000			638,935					2-7680
Grand Total	6,120	42,728	6,320,329	6,906,42,829	6,313,746	6,952,43,599	6,654,214	6,974	44,414	7,003,661							

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

Budget Activity: 7-Central Supply and Maintenance

I. Description of Operations Financed.

These programs provide supply, maintenance, technical, and other logistic and acquisition management support to the operating forces. This support is primarily provided by five Naval Systems Commands; the Naval Data Automation Command (NAVDAC) which operates under the direct command of the Chief of Naval Operations; and the Assistant for Administration to the Under Secretary of the Navy (AAUSN). Additionally, there have been some realignments of responsibilities and funding between the Space and Naval Warfare Systems Command, the Naval Air Systems Command, the Naval Supply Systems Command, and the Naval Sea Systems Command to more properly align mission areas.

The FY 1989 budget estimate reflects significant reductions in engineering and logistics support programs from FY 1988 to meet budget reduction goals and to protect direct readiness programs of flying and steaming. Central Supply and Maintenance Activity programs provide direct fleet engineering and technical efforts to identify problem areas and to develop corrective measures for weapon systems and equipment deficiencies. The FY 1989 reductions were made in engineering and logistics with the knowledge that the Navy would incur a risk in its ability to maintain weapon systems.

The FY 1990 budget request reflects increased funding from the FY 1989 estimate primarily for AEGIS hardware and software maintenance and support as additional systems deliver. The increases in FY 1990 and FY 1991 reflect the rapidly growing AEGIS fleet and the increasing complexity of AEGIS combat system baselines. The introduction of cruiser and destroyer baseline 4 computer programs to the fleet during FY 1991 will require the capability to maintain combat system computer programs which are three times as complex as those currently maintained for baseline 1 cruisers. The budget also reflects funding increases in FY 1990 for depot maintenance for items such as airframes, missile systems, guns, ASW weapons, and other weapon systems and equipment to maintain backlogs at manageable levels and to maintain acceptable asset readiness to perform additional MK-46 depot overhauls to meet fleet requirements; for increased aircraft modification installations to install necessary modification kits previously procured; and to provide interim logistic support for new MK-48 ADCAP torpedoes entering the fleet. Increased funding also reflects the 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

Activity: 7-Central Supply and Maintenance (continued)

I. Description of Operations Financed (continued)

compromise to the acquisition procurement process. Additionally, the budget request includes increased funding for the continuation of supply system ADP modernization efforts, such as Stock Point ADP Replacement (SPAR) and the Inventory Control Point (ICP) Resolicitation Project. Increases are partially offset by the buy-out of uneconomically leased hardware at the ICPs, the transfer of Contractor Engineering Technical Services (CETS) and Navy Engineering Technical Services (NETS) funding to General Purpose Forces, and the transfer of hazardous waste disposal funding from a central budget account to the hazardous waste generating activities in FY 1990 and out in order to encourage reduction of waste generation.

The net FY 1991 budget request for programs is lower than the FY 1990 budgeted level when the impact of inflation and the passthroughs to the Navy Industrial Fund (NIF) are considered. Requested NIF passthroughs increase by \$189 million to reflect a zero profit/loss position in the NIF by the end of FY 1991. However, the budget request reflects program decreases in aviation depot maintenance primarily for engine rework and other aviation systems maintenance and program decreases for supply operations to reflect completion of systems development and training development for Stock Point ADP modernization.

Detailed budget justification by activity group is provided separately for each major claimant in budget activity 7. All available audit savings have been incorporated into these budget estimates.

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Budget Activity: 7-Central Supply and Maintenance (continued)

II. Financial Summary (Dollars in Thousands).

A. Claimant Breakout.

		FY 1989							
				Amended					
		FY 1988		Pres.	Appro-	Current		FY 1990	FY 1991
		Actual		Budget	priation	Estimate		Budget	Budget
								Request	Request
Naval Air Systems		2,187,010		2,080,869	2,059,183	2,063,993		2,112,267	2,171,387
Command									
Naval Sea Systems		1,974,257		1,790,356	1,770,612	1,816,207		2,088,933	2,174,530
Command									
Naval Supply		1,273,407		1,242,142	1,208,950	1,274,732		1,373,087	1,381,363
Systems Command									
Naval Facilities		442,798		337,425	322,116	408,374		328,489	331,792
Engineering									
Command									
Space and Naval		402,961		229,255	223,250	231,622		255,843	262,440
Warfare Systems									
Command									
Chief of Naval		28,952		35,170	35,026	34,791		32,884	30,062
Operations									
(OP-09B)									
Assistant for		10,944		11,797	11,688	11,712		12,711	13,152
Administration to									
the UNSECNAV									
Chief of Naval		-0-		397,900	397,900	472,315		450,000	638,935
Operations									
(OP-82)									
Total Budget		6,320,329		6,124,914	6,028,725	6,313,746		6,654,214	7,003,661
Activity									

7 0003

Budget Activity: 7-Central Supply and Maintenance (continued)

B. Reconciliation of Increases and Decreases

1. FY 1989 Amended President's Budget Request	6,124,914
2. Congressional Adjustments	-96,189
A. Inventory Management	(-12,193)
B. ADP Systems	(-56,391)
C. C3	(-1,150)
D. Asset Capitalization	(-23,920)
E. Reversal of De-NIFing	(-74,454)
F. Goldwater-Nichols	(-460)
G. Fuel Savings	(-121)
H. A-76 Savings	(-10,500)
I. AVDLRs	(20,000)
J. Aviation Depot Maintenance	(63,000)
3. FY 1989 Appropriated	6,028,725
4. Pricing Adjustments	102,997
A. Incremental 2.1% FY 1989 Pay Raise	(102,997)
(1) Classified	72,723
(2) Wageboard	25,941
(3) Special, Clerical & Engineers	4,333
5. Other Increases	486,725
A. Program Increases	(486,725)
6. Other Decreases	-304,701
A. Program Decreases	-304,701
7. FY 1989 Current Estimate	6,313,746

Budget Activity: 7-Central Supply and Maintenance (continued)

B. Reconciliation of Increases and Decreases (continued)	
8. Pricing Adjustments	188,299
A. Annualization of FY 1989 Direct Pay Raises (17,026)	
1) Classified	12,447
2) Wage Board	4,514
3) Foreign National Direct Hires	65
B. FY 1990 Direct Pay Raises (20,625)	
1) Classified	18,177
2) Wage Board	1,640
3) Foreign National Direct Hires	808
C. Stock Fund (-851)	
1) Fuel	-420
2) Non-Fuel	-431
D. Industrial Fund Rates (60,841)	
E. FN Indirect Hire Pay Raises (3,209)	
F. Foreign Currency Adjustments (11,866)	
G. Other Pricing Adjustments (75,583)	
9. Functional Program Transfers	-76,288
A. Transfers in (104,067)	
1) Intra-Appropriation	67,021
2) Inter-Appropriation	37,046
B. Transfers out (-180,355)	
1) Intra-Appropriation	-178,759
2) Inter-Appropriation	-1,596
10. Program Increases	619,357
A. Annualization of FY 1989 Increases (4,142)	
B. One-Time FY 1990 Costs (3,371)	
C. Other Program Growth in FY 1990 (611,844)	
11. Program Decreases	-390,900
A. Annualization of FY 1989 Decreases (-1,633)	
B. One-Time FY 1989 Costs (-408)	
C. Other Program Decreases in FY 1990 (-388,859)	

Budget Activity: 7-Central Supply and Maintenance (continued)

B. Reconciliation of Increases and Decreases (continued)

12. FY 1990 President's Budget Request		6,654,214
13. Pricing Adjustments		368,685
A. Annualization of FY 1990 Direct Pay Raises	(9,239)	
1) Classified	6,974	
2) Wage Board	2,187	
3) Foreign National Direct Hires	78	
B. FY 1991 Direct Pay Raises	(30,337)	
1) Classified	27,661	
2) Wage Board	2,410	
3) Foreign National Direct Hires	266	
C. Stock Fund	(2,047)	
1) Fuel	248	
2) Non-Fuel	1,799	
D. Industrial Fund Rates	(245,181)	
E. FN Indirect Hire Pay Raises	(727)	
F. Other Pricing Adjustments	(81,154)	
14. Program Increases		224,947
A. Annualization of FY 1990 Increases	(13,028)	
B. One-Time FY 1991 Costs	(14,387)	
C. Other Program Growth in FY 1991	(197,532)	
15. Program Decreases		\$-244,185
A. Annualization of FY 1990 Decreases	(-1,345)	
B. One-Time FY 1990 Costs	(-1,260)	
C. Other Program Decreases in FY 1991	(-241,580)	
16. FY 1991 President's Budget Request		7,003,661

Budget Activity: 7-Central Supply and Maintenance (continued)

III. Performance Criteria

Detailed performance criteria are reflected by major claimant and activity group in the applicable sections of the budget submission.

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>				
<u>Officer</u>	6,120	6,906	6,952	6,974
<u>Enlisted</u>	2,936	3,026	3,031	3,032
	3,184	3,880	3,921	3,942
B. <u>Civilian</u>	42,728	42,829	43,599	44,414
<u>USDH</u>	42,079	42,129	42,899	43,714
<u>FNDH</u>	253	280	280	280
<u>FNIH</u>	396	420	420	420

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

Activity Group: Aircraft Rework and Maintenance - M1
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Air Systems Command

I. Description of Operations Financed.

A. Airframe Rework - This program provides inspection, repair, reconfiguration and conversion of fleet aircraft. Through periodic return to depot level maintenance activities, aircraft major structures and airframe systems are maintained in a safe flyable condition. The Aircraft Service Period Adjustment (ASPA) Program adjusts individual aircraft period end dates for selected aircraft when material condition warrants. Under ASPA guidelines, only aircraft that upon inspection cannot safely be extended for another 12-month tour are inducted in the depot for Standard Depot Level Maintenance (SDLM). Depot maintenance is conducted under the SDLM concept in which maintenance is performed only to the level that is technically justified and cost effective. Operational Service Period (OSP) initiatives related to increasing OSPs on selected aircraft are reflected in this submission, as are Maintenance Requirements Review Board man-hour reductions. The Navy has implemented a strategy that includes competition for depot maintenance workload between the Naval Aviation Depots and commercial activities. It is NAVAIR's policy to promote competition between the Naval Aviation Depots and private industry as a means of improving performance and reducing total costs. Selected competition will be conducted above the essential base for the alteration, overhaul and repair of aircraft. These selected aircraft are reflected in this submission.

B. Engine Rework - The engine rework program accomplishes the repair, modification and overhaul of aircraft engines, gearboxes, and torque meters. The program objective is to return depot-repairable engines to ready-for-issue status to support fleet engine pool requirements. Under the Engine Analytical Maintenance Program (EAMP), engines are repaired at the lowest echelon of maintenance. Only engines that are beyond the repair capability of intermediate maintenance activities are scheduled for induction in the depots. Depot-level maintenance may also be performed concurrent with aircraft SDLM if such maintenance is operationally necessary and cost effective. Engine field team assistance is included in this budget submission to provide on-site depot level maintenance on an as-needed basis.

Activity Group: Aircraft Rework and Maintenance (continued)
Claimant: Naval Air Systems Command

I. Description of Operations Financed (continued).

C. Component Rework - The primary purpose of the Component Rework Program is to provide optimum Fleet readiness during the interim support period by ensuring an adequate supply of components is available to support the fleet. The program objective is to accomplish depot level repair of components during interim support in quantities consistent with fleet usage for support of aircraft operational readiness objectives. The interim support phase is that period of time prior to material support date (MSD). MSD is the point in time when support, material and repair transition from the contractor to the Navy Aviation Supply Office (ASO). In addition to interim support repairs, the Repair of Repairables (ROR) funds the 4R and 6K cognizance component repair programs. These programs remained under NAVAIRSYSCOM management, due to specialized supply categories which were not included in the Aviation Depot Level Repairables (AVDLR) transfer. ROR also funds Microcircuit Obsolescence Management program which supports a microcircuit application base and assists NAVAIR program/equipment managers in resolving microcircuit obsolescence problems related to components operating in the fleet and possibly still under production. Component rework funds the cost of labor and material needed for repairs.

D. Modification Installation - This program provides installation of modifications to improve safety, reliability, maintainability and/or readiness of in-service aircraft, and special modifications that extend their useful service life beyond that which was originally engineered. These modifications reduce the need to procure new aircraft systems by providing an updated, serviceable weapon system to meet operational commitments. Requirements for the aircraft modification program are generated by the Operational Safety Improvement Program (OSIP). The Aircraft Procurement, Navy (APN) appropriation procures the modification kits identified by the OSIP, which are then installed to produce the necessary improvements in the aircraft system. The D&M modification program funds the cost of labor and incidental material needed for the installation of these kits. The objective is a coordinated and balanced program between kit procurement and kit installation. Modifications are installed concurrent with SDLM, on a "drive-in" basis, and by field modification teams for aircraft not scheduled for rework. This ensures similar configuration of aircraft within a given unit, and updates flight and maintenance systems of trainer aircraft to a configuration compatible with the fleet. Modification requirements include the cost of requisitioning aviation depot level repairable (AVDLR) components from the Navy Stock Fund for commercially supported SDLM modification aircraft. The Navy has implemented a strategy that includes competition for depot maintenance workload between the Naval Aviation Depots and commercial activities. It is NAVAIR's policy to promote competition between the Naval Aviation Depots and private industry as a means of improving performance and reducing total costs. Selected competition will be conducted above the essential base for modification installation of these aircraft. These selected aircraft modification installations are reflected in this submission.

Activity Group: Aircraft Rework and Maintenance (continued)
Claimant: Naval Air Systems Command

I. Description of Operations Financed (continued).

E. Aircraft Support Services - This program provides unscheduled services to the fleet. The services are budgeted on the basis of historical levels of effort and projected emergent requirements. This program enhances fleet readiness by providing expeditious solutions for the correction of unplanned maintenance problems incurred during fleet operations. Services include salvage of material, fleet maintenance training, customer service, preservation and depreservation, aircraft recovery, and support of depot maintenance operations.

Activity Group: Aircraft Rework and Maintenance (continued)
Claimant: Naval Air Systems Command

II. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout

		<u>FY 1989</u>			<u>FY 1990</u>	<u>FY 1991</u>
	<u>FY 1988</u>	<u>Amended</u>	<u>Appro-</u>	<u>Current</u>	<u>Budget</u>	<u>Budget</u>
	<u>Actual</u>	<u>Budget</u>	<u>priation</u>	<u>Estimate</u>	<u>Request</u>	<u>Request</u>
Airframes	392,065	457,092	463,947	388,047	442,941	442,260
Engine Rework	216,033	242,684	259,826	259,826	218,189	206,058
Component Repair	53,610	64,551	63,766	63,766	65,859	66,017
Mod Installation	344,381	196,300	216,020	291,920	307,214	327,672
Safety	(21,300)			(48,203)	(55,802)	(57,995)
Replacement	(106,793)	*	*	(130,609)	(124,706)	(132,689)
Improvement	(216,288)			(113,108)	(126,706)	(136,988)
Support Services	<u>26,616</u>	<u>22,905</u>	<u>28,645</u>	<u>28,645</u>	<u>24,520</u>	<u>24,588</u>
Total Aircraft Rework and Maintenance	1,032,705	983,532	1,032,204	1,032,204	1,058,723	1,066,595

*The breakout of the modification program into these categories was not done prior to the current submission.

Activity Group: Aircraft Rework and Maintenance (continued).
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		1,032,204
2. Pricing Adjustments		
A. Stock Fund	(-714)	40,447
1) Non-Fuel	-714	
B. Industrial Fund Rates	(22,648)	
C. Foreign Currency Adjustments	(7,553)	
D. Other Pricing Adjustments	(10,960)	
3. Functional Program Transfers		
A. Transfers Out		
1) Intra-Appropriation	(-1,564)	-1,564
a) Transfer of Supply Reimbursable Funding	-1,564	
This adjustment reflects the transfer of resources to correct improperly aligned reimbursable workload at the Inventory Control Points (ICPs). Efforts within the mission responsibilities of the ICPs were being financed reimbursably. This adjustment reflects the transfer from reimbursable to direct mission funding for this effort.		
4. Program Increases		83,742
A. Other Program Growth in FY 1990		
1) Increase for Aircraft Rework SDLM's, SDLM/Mods and ASPA inspections.	(68,987)	
2) Increase in Engine Overhauls and Field Teams.	(2,363)	
3) Increase in Modification Installation for Concurrent, Drive-In Mods, Trainers and Commercial Mod Installs.	(12,167)	
4) Increase in Aircraft Support Services relative to Aircraft Recovery.	(225)	
5. Program Decreases		-96,106
A. Other Program Decreases in FY 1990		
1) Decrease in Aircraft Rework for SDLM/Crash Damages, Mid-Term Inspections, SDLM/Repair, Air-Worthiness Inspections, Emergency Repairs and Field Inspections.	(-32,700)	
2) Decrease of 311 engine reworks and decreased Special Repair. (260 engine repairs and 51 Gear Boxes/T.M. O/H and repairs).	(-52,785)	

Activity Group: Aircraft Rework and Maintenance (continued).
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (Continued)

3) Decrease in Repair of Repairables for Weapon Systems Components, Common Avionics and Support Equipment.	(-137)	
4) Decrease in Modification Installation Field Mod Teams and Verification Installation.	(-5,401)	
5) Decrease in Aircraft Support Services relative to Preservation, Salvage, Acceptance/Transfer, Customer/Fleet Training, Customer Service and Other Support Items.	(-5,083)	
6. FY 1990 President's Budget Request		1,058,723
7. Pricing Adjustments		25,212
A. Stock Fund	(699)	
1) Non-Fuel	699	
B. Industrial Fund Rates	(12,768)	
C. Other Pricing Adjustments	(11,745)	
8. Program Increases		19,878
A. Other Program Growth in FY 1991		
1) Increase in higher priced Airframe Rework SDLM's, Mid-Term and Air Worthiness Inspections, Emergency Repairs and Field Inspections.	(3,839)	
2) Increase in Modification Installation Concurrent with Aircraft Rework, Field Mod Teams and Commercial Installs.	(15,996)	
3) Increase in Aircraft Support Services relative to Preservation, Acceptance/Transfer and Aircraft Recovery.	(43)	
9. Program Decreases		-37,218
A. Other Program Decreases in FY 1991		
1) Decrease in Aircraft Rework of 14 SDLM/Mod, 1 Crash Damage and ASPA Inspections.	(-14,416)	
2) Decrease of 143 engine reworks and decreased Field Teams.	(-16,740)	
3) Decrease in Repair of Repairables for Weapon Systems Components, Common Avionics and Support Equipment.	(-1,834)	
4) Decrease in Modification Installation Drive-in Mods and Trainers.	(-3,645)	
5) Decrease in Aircraft Support Services relative to Customer/Fleet Training, Customer Service and Other Support.	(-583)	
10. FY 1991 President's Budget Request		1,066,595

Activity Group: Aircraft Rework and Maintenance (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria

A. Airframe Rework

Stand. Depot Level Maintenance	Units Cost	298 171,218	FY 1988 237,112	FY 1989 441 276,317	FY 1990 455 285,109	FY 1991 426 86,025
SDLW/Modifications	Units Cost	171 129,641	112 54,442	163 97,521	149 86,025	
SDLW/Conversion	Unit Cost	18 5,592	0 0	0 0	0 0	
SDLW/Crash Damage	Units Cost	7 7,240	15 11,395	4 3,979	3 3,814	
Age Exploration Program, Depot	Units Cost	15 4,513	23 6,137	23 6,108	23 6,230	
SUBTOTAL SDLW	Unit Cost	509 318,204	591 309,086	645 383,925	601 381,178	

Activity Group: Aircraft Rework and Maintenance (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)	FY 1988	FY 1989	FY 1990	FY 1991
Mid-Term Inspection	Units Cost	8 3,189	1 155	2 318
SDLW/Repair	Units Cost	1 8,185	0 0	0 0
Air Worthiness	Units Cost	164 3,266	75 1,667	79 1,823
Emergency Repairs	Cost	56,753	48,700	50,278
Aircraft Service Period Adjustment Inspections	Cost	7,876	8,437	8,153
Field Inspection	Units Cost	3 170	1 57	9 510
SUBTOTAL Other	Units Cost	176 78,961	77 59,016	90 61,082
Total Airframe Rework	Cost	392,065	442,941	442,260

Activity Group: Aircraft Rework and Maintenance (continued)
Claimant: Naval Air Systems Command

III. Performance Criteria (continued)	FY 1988	FY 1989	FY 1990	FY 1991	
B. Engine Reworks.					
Engine Overhaul	Units Cost	147 15,267	143 14,780	148 17,310	114 14,014
Engine Repair	Units Cost	1,692 191,618	1,816 237,115	1,556 194,260	1,505 188,271
SUBTOTAL O/H & Repair	Units Cost	1,839 206,885	1,959 251,895	1,704 211,570	1,619 202,285
Gear Boxes/T.M. (O/H)	Units Cost	306 4,567	306 4,514	256 4,421	203 3,458
Gear Boxes/T.M. (Repair)	Units Cost	50 668	29 376	28 375	23 315
Special Repair	Units Cost	0 2,919	0 1,600	0 0	0 0
Field Team	Cost	994	1,441	1,823	0

Activity Group: Aircraft Rework and Maintenance (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued).		FY 1988	FY 1989	FY 1990	FY 1991
SUBTOTAL Gear Boxes Field Team & Special	Units Cost	356 9,148	335 7,931	284 6,619	226 3,773
	TOTAL Engine Rework	216,033	259,826	218,189	206,058
C. <u>Component Repair.</u>					
Augmented Support (ROR)					
Total Component Repair		53,610	63,766	65,859	66,017
		53,610	63,766	65,859	66,017
D. <u>Modification Installation.</u>					
Concurrent with Aircraft Rework					
Drive-In Mod		63,772	48,035	50,146	54,077
Field Mod Team		11,196	16,037	21,329	19,820
Trainers		18,212	17,709	13,482	16,873
		125	1,581	1,656	127
Comm'l Mod Install Cost		249,840	207,920	220,601	236,775
Verification Installation		1,236	638	0	0
Total Modification Installation		344,381	291,920	307,214	327,672

Activity Group: Aircraft Rework and Maintenance (continued)
Claimant: Naval Air Systems Command

III. Performance Criteria (Continued).

E. Support Services

Preservation	2,157	1,959	1,661	1,725
Salvage	351	351	286	294
Acceptance/Transfer	1,286	1,294	1,047	1,086
Customer/Fleet Training	4,009	3,990	3,942	3,995
Customer Services	10,127	15,247	11,148	11,106
Other Support Items	7,817	5,054	5,401	5,315
Aircraft Recovery	869	750	1,035	1,067
Total Support Services	26,616	28,645	24,520	24,588
Total Aircraft Rework & Maintenance Requirement	1,094,688	1,252,858	1,322,931	1,294,647
Constraint	1,032,705	1,032,204	1,058,723	1,066,595
Backlog	61,983	220,654	264,208	228,052
Exec. Backlog	61,983	170,500	162,900	115,800

IV. Personnel Summary:

Not Applicable.

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

Activity Group: Air-Launched Weapons Rework - PA
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Air Systems Command

I. Description of Operations Financed

Missile maintenance requirements financed by this program include missile testing, repair, rework, Navy approved modifications and on-site technical assistance to maintenance facilities. Quantities of missiles requiring a test are computed based on the length of time that a missile can remain ready for issue in the Fleet. When the test is due, or a missile fails in the Fleet, the missile is returned to a Naval Weapons Station for testing, disassembly, repair and reassembly. Major missile sections requiring repair beyond the capability of the naval weapons stations are forwarded for rework to a designated overhaul point. This program provides for all action required to maintain the asset readiness posture prescribed by the Chief of Naval Operations. In addition, this program provides for missile engineering expense directly associated with the repair of the weapon.

The air-launched ordnance and ammunition maintenance requirements financed by this program provide for the renovation of air-launched ordnance, ammunition and explosive devices and on-site technical assistance to maintenance facilities. Maintenance is performed on Navy-owned ordnance/ammunition items outside the purview of the Army Single Manager, including material in Navy retail outlets, depot repairable Navy material located in Army inland depots and items excluded from the Single Manager charter such as aircraft installed Cartridge Actuated Devices (CADs) and Aircrew Escape Propulsion Systems (AEPS). This program provides for all action required to maintain the asset readiness posture prescribed by the Chief of Naval Operations. In addition, this program provides for ordnance engineering expense directly associated with the repair of the weapon.

The special weapons maintenance and support program provides for maintenance and on-site technical assistance to maintenance facilities for training devices.

7 0019

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

II. Financial Summary (Dollars in Thousands)

	FY 1989				FY 1990 Budget Request	FY 1991 Budget Request
	FY 1988 Actual	Amended Pres. Budget	Appro- priation	Current Estimate		
A. Sub-Activity Group Breakout						
Air-Launched Missiles	62,883	60,342	59,618	58,618	57,295	66,839
Air-Launched Ordnance & Ammunition	37,704	30,634	30,261	30,261	32,895	33,861
Special Weapons Maintenance & Support	<u>6,192</u>	<u>5,603</u>	<u>5,523</u>	<u>6,523</u>	<u>6,526</u>	<u>6,458</u>
Total Air-Launched Weapons Rework	106,786	96,579	95,402	95,402	96,716	107,158

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

B . Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$95,402
2. Pricing Adjustments		
A. Industrial Fund Rates	(2,931)	3,799
B. Other Pricing Adjustments	(868)	
3. Program Increases		1,642
A. Other Program Growth in FY 1990	(1,642)	
1) Increased renovation of Expendable Ordnance (Bombs) and Non-Expendable Ordnance (Missile Launchers, Buddy Stores) generated by service life/install time expirations and periodic inspection intervals.	1,082	
2) Increased installations of the Improved Multiple/Triple Ejection Bomb Rack Modifications and Rockeye/APAM bombs requiring Retardable Fin modifications.	560	
4. Program Decreases		-4,127
A. Other Program Decreases in FY 1990	(-4,127)	
1) Decrease in missile maintenance for the HARPOON, SHRIKE, SPARROW, and WALLEYE Missile Systems which increases the depot backlog in FY 1990.	-2,185	
2) Decrease in missile modifications generated by a reduced number of weapons available for modification due to restricted test quantities; installations are only funded for those systems scheduled for testing and repair.	-600	
3) Decrease in number of Special Weapons maintenance actions.	-292	
4) Decreased effort for Air-Launched Weapons engineering services.	-1,050	

Activity Group: Air-Launched Weapons Rework (continued).
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (continued).

5. FY 1990 President's Budget Request		\$96,716
6. Pricing Adjustments		
A. Industrial Fund Rates		2,786
B. Other Pricing Adjustments	(2,137) (649)	
7. Program Increases		8,000
A. Other Program Growth in FY 1991	(8,000)	
1) Increased missile maintenance for SIDEWINDER, SIDEARM WALLEYE, SHRIKE and SPARROW due to increased Service-In-Service-Time (SIST) expirations generated by new production deliveries, which have increased the missile inventory.		
2) Increased modification installations for PHOENIX depot support equipment, the SPARROW AIM/RIM-7M Product Improvement Program, and the WALLEYE Improved Vidicon generated by increased numbers of weapons available for modification due to higher test quantities.	4,689	
3) Increased renovation for Air-Launched Ordnance generated by service life/install time expirations and periodic inspection intervals.	2,966	
8. Program Decreases		
A. Other Program Decreases in FY 1991		-344
1) Decrease in number of Special Weapons maintenance actions.	(-344)	
2) Decreased effort for Air-Launched Weapons engineering services.	-173 -171	
9. FY 1991 President's Budget Request		\$107,158

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria

A. Air-Launched Missile Rework
Sidewinder

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Units Cost	2,099 8,180	595 4,084	914 5,175	1,627 7,401
Sparrow	1,846 6,830	973 5,380	927 5,451	1,612 8,300
Walleye	927 2,574	816 3,440	177 1,712	643 2,846
Shrike	2,037 2,032	1,009 1,772	346 1,365	597 1,595
Phoenix	1,006 5,629	1,141 5,659	1,063 5,806	614 4,543
Harpoon	525 13,329	349 10,043	222 7,800	219 9,325
Harm	321 1,413	75 777	277 1,156	187 1,034
Hellfire	- 81	- 443	- 245	182 569
Skipper	- 222	107 296	2,052 2,174	470 692
Maverick	- 3	- 3	- 3	- 3
Sidearm	- -	- -	40 104	172 422
Subtotal	8,761 40,293	5,065 31,897	6,018 30,991	6,323 36,730

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Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued)

		FY 1988	FY 1989	FY 1990	FY 1991
<u>Modifications</u>					
Sidewinder	TD/Mods Cost	4/1,236 169	5/2,641 294	3/3,066 286	2/2,441 324
Sparrow	TD/Mods Cost	4/858 203	3/1,686 241	1/296 1,012	1/436 1,540
Shrike	TD/Mods Cost	-/-	2/594 267	1/266 154	1/314 188
Phoenix	TD/Mods Cost	13/1,281 776	11/1,903 477	7/1,281 179	6/185 1,827
Harm	TD/Mods Cost	2/71 9	1/75 12	-/-	-/-
Harpoon	TD/Mods Cost	27/2,027 5,465	26/2,444 5,025	26/1,686 6,363	19/1,449 6,369
Hellfire	TD/Mods Cost	-/-	-/-	-/-	-/-
Walleye	TD/Mods Cost	1/195 3,138	3/2,804 3,762	4/841 2,617	3/2,120 4,231
Tow	TD/Mods Cost	2/1,375 95	1/747 48	-/-	-/-
Sidearm	TD/Mods Cost	-/-	-/-	2/84 16	2/268 38
Maverick	TD/Mods Cost	-/-	1/297 1,234	1/133 572	-/-
Subtotal	TD/Mods Cost	53/7,043 9,855	53/13,191 11,360	45/7,653 11,199	34/7,213 14,517

7 0024

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued)

		FY 1988	FY 1989	FY 1990	FY 1991
Engineering Services	Manyrs				
	Cost				
Harm		11.1 944	13.2 1,151	12.4 1,124	12.5 1,170
Harpoon	Manyrs Cost	35.5 3,762	39.0 4,194	37.2 4,142	37.3 4,272
Hellfire	Manyrs Cost	3.2 233	3.3 255	3.3 259	3.3 268
Maverick	Manyrs Cost	2.0 165	2.0 184	2.0 185	2.0 192
Phoenix	Manyrs Cost	20.4 1,571	26.7 2,098	24.8 2,020	25.0 2,107
Shrike	Manyrs Cost	11.3 939	13.8 1,178	12.9 1,141	13.0 1,189
Sidewinder	Manyrs Cost	22.9 1,761	27.9 2,193	26.0 2,116	26.2 2,208
Skipper	Manyrs Cost	1.9 178	2.0 198	2.0 200	2.0 207
Sparrow	Manyrs Cost	26.4 2,064	32.5 2,580	32.5 2,590	30.6 2,604
Tow	Manyrs Cost	2.5 208	3.0 253	2.8 248	2.8 258
AMRAAM	Manyrs Cost	.0 0	.0 0	.0 0	.0 0

7 0025

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued)

	FY 1988	FY 1989	FY 1990	FY 1991
Valleye	11.2 910	13.5 1,077	12.6 1,080	12.7 1,117
Subtotal	148.4 <u>12,735</u>	176.9 <u>15,361</u>	168.5 <u>15,105</u>	167.4 <u>15,592</u>
TOTAL COST	62,883	58,618	57,295	66,839

B. Air-Launched Ordnance and Ammunition Rework

Aircrew Escape Propulsion Systems	Units Cost	1,334 1,339	725 1,103	963 1,779
Cartridge Actuated Devices	Units Cost	6,352 741	12,300 743	14,683 891
Bombs	Units Cost	8,244 3,605	7,494 3,865	15,857 2,878
Rockets/Launchers	Units Cost	10,877 1,185	6,065 867	11,226 2,075
Pyrotechnics	Units Cost	468,171 283	125,130 960	81,132 482
Dispensers	Units Cost	39,021 215	17,393 558	20,443 158
A/C Gun Ammunition	Units Cost	104,689 273	41,458 273	588,454 484

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued)

		<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
A/C Gun Systems	Units Cost	881 1,161	215 889	158 966	148 999
Bomb Racks	Units Cost	3,028 7,521	2,775 6,398	2,687 6,338	2,673 6,295
Buddy Stores	Units Cost	34 1,332	25 925	52 1,970	54 2,049
Fuel Tanks	Units Cost	1,116 4,358	975 3,585	953 3,439	973 3,608
Missile Launchers	Units Cost	701 2,655	690 2,334	715 2,615	742 2,797
Chemical Tanks	Units Cost	135 1,126	99 891	99 915	105 1,004
Subtotal	Units Cost	334,710 26,772	643,467 22,665	215,229 24,612	737,453 25,499
<u>Modifications</u>					
Bombs	TD/Mods Cost	2/37,798 2,922	2/20,422 1,892	2/31,977 2,280	2/22,354 2,372
Rockets/ Launchers	TD/Mods Cost	3/1,655 106	-/- -	-/- -	-/- -
Missile Launchers	TD/Mods Cost	2/6,720 3,505	1/329 1,378	1/392 764	1/1,200 323

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued)

	FY 1988	FY 1989	FY 1990	FY 1991
Bomb Racks				
TD/Mods				
Cost	3/578	-/-	2/301	2/385
	85	-	841	1,322
Subtotal	10/46,751	3/20,751	5/32,670	5/23,939
	6,618	3,270	3,885	4,017
Engineering Services				
Aircrew Escape	4.6	5.7	5.6	5.4
Propulsion Systems	273	361	362	362
Cartridge				
Actuated	6.5	8.3	9.1	7.9
Devices	421	553	643	577
Bombs				
Manyrs	9.0	6.8	6.5	6.1
Cost	705	532	531	532
Chemical				
Tanks	.3	.3	.2	.2
	23	23	22	22
Rockets/				
Launchers	4.9	5.3	5.0	4.9
	346	387	390	392
A/C Gun				
Ammunition	2.5	2.0	1.9	1.9
	197	165	165	165
Chaff/				
Dispensers	.2	.4	.3	.3
	22	35	30	30
Pyrotech-				
tics	4.3	2.6	2.5	2.4
	305	188	194	195

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
A/C Gun Systems	7.6 586	7.8 623	7.4 604	7.1 605
Airborne Wpns Control & Release Equipment (AWCRE)	1.0 79	1.1 91	1.1 95	1.1 95
Bomb Racks	6.0 494	8.2 592	7.7 595	7.3 602
Submarine Warfare Airborne Devices	.5 50	.7 58	.7 57	.6 57
Missile Launchers	10.9 813	9.4 718	8.9 710	8.6 711
Subtotal	58.3 <u>4,314</u>	58.6 <u>4,326</u>	56.9 <u>4,398</u>	53.8 <u>4,345</u>
TOTAL COST	37,704	30,261	32,895	33,861
<u>C. Special Weapons Maintenance and Support</u>				
Maintenance				
War Res/Trainer	8,092 3,265	8,830 3,669	8,106 3,542	7,793 3,492
Subtotal	8,092 3,265	8,830 3,669	8,106 3,542	7,793 3,492

Activity Group: Air-Launched Weapons Rework (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued)

Engineering Services

Maintenance Engineering	Manyrs Cost	FY 1988	FY 1989	FY 1990	FY 1991
		12.9	15.6	15.1	14.6
		935	1,200	1,188	1,190
Publications	Manyrs Cost	5.4	5.1	5.4	5.2
		345	323	358	361
Quality Evaluation	Manyrs Cost	17.1	13.9	14.4	13.5
		1,654	1,331	1,438	1,415
Subtotal	Manyrs Cost	35.4	34.6	34.9	33.3
		2,934	2,854	2,984	2,966
TOTAL COST		6,199	6,523	6,526	6,458
Total Requirements		106,786	128,800	132,224	140,567
Total Funding		106,786	95,402	96,716	107,158
Total Backlog		0	33,398	35,508	33,409
Total Executable Backlog		0	33,398	35,508	33,409

IV. Personnel Summary:

Not Applicable

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

Activity Group: Other Aviation Systems Maintenance - N2
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Air Systems Command

I. Description of Operations Financed.

A. Calibration program funds are used for labor and materials at depot calibration facilities, including NAVAIR Calibration Laboratories and Annexes, Navy Standards Laboratories, the Metrology Engineering Center, and other Navy, Army and Air Force calibration activities. The NAVAIR depot calibration laboratories, DOD inter/intraservice and commercial laboratories calibrate support equipment and standards which are beyond the capability of fleet intermediate level facilities. The NAVAIR standards laboratories calibrate standards from the lower echelon laboratories. The National Bureau of Standards (NBS) provides calibration services for the most accurate standards in each measurement group for the NAVAIR standards laboratories. In addition to funding depot level calibrations, this program provides funds necessary for technical support. These funds provide host/tenant agreements, technical support of depot laboratories outside the continental U.S. and permanent change of station movement of calibration technicians.

B. The Overhaul of Support Equipment (SE) program provides funding for depot level rework of Support Equipment (SE) under the cognizance of the Naval Air Systems Command, Inventory Control Points and Type Commanders. The depot level rework process involves inducting SE units into a depot level maintenance facility for inspection, disassembly, repair and verification of repair in accordance with established SE rework specifications. SE Rework includes end item repair, check, test, component replacement, painting and corrosion control when incidental to rework, and incorporation of all engineering changes. The Service Life Extension Program for SE is also accomplished using SE Rework funds. In addition, the program finances the Aviators Breathing Oxygen repair program, rework specification production, and quick change pool management.

C. Target Maintenance provides depot level maintenance for targets and support for equipment and training pods essential for Fleet Training.

D. The Airborne Mine Countermeasures Program provides ready-for-issue mine countermeasures equipment in sufficient quantities for peacetime operating and training requirements and a sufficient inventory of equipment for wartime requirements until a production flow of material can be established. The program finances the overhaul of equipment as well as the calibration of hydrodynamic components in their operating environment prior to Fleet issue.

Activity Group: Other Aviation Systems Maintenance (continued)
Claimant: Naval Air Systems Command

1. Description of Operations Financed (continued).

E. Overhaul of Aircraft Cameras provides for the overhaul and repair of aerial cameras. This program provides film processing and printing, and analysis for photographic van complexes for fleet operational training flights. In addition, the program provides technical, material and operational readiness for Tactical Aerial Reconnaissance Pod Systems.

F. The Coast Guard program provides for maintenance and support of Navy-owned electronic equipment in Coast Guard aircraft.

G. Aviation Tactical Software provides for the maintenance of systems software and software changes necessary to ensure maximum operational capability of all Naval Aircraft/Weapon Systems which employ digital computers.

H. The Expeditionary Airfield (EAF) program is required to support Marine Amphibious Force size units, composed of varying numbers of fighter, attack, and helicopter aircraft in combat, under all-weather conditions. This equipment consists of aluminum matting, arresting gear, lightweight earth anchor, lighting, landing aids, and short range communications devices. The EAF site must be operational within a maximum of 5 days after equipment delivery and must be air transportable in whole or in part, by aircraft within the Navy or Marine Corps inventory.

Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

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
Calibration	55,671	48,476	47,886	47,814	51,666	47,800
SE Rework	76,558	82,880	81,931	76,931	77,596	69,649
Target Maintenance	10,762	2,354	2,354	7,354	12,153	15,432
Airborne Mine Counter Measures	10,128	6,754	6,755	6,755	7,455	8,050
A/C Camera Repair and Overhaul	3,411	1,067	1,077	3,277	3,593	3,620
Coast Guard Supt	2,503	3,894	3,894	3,894	4,757	4,499
Tactical Systems Software	59,734	65,743	65,019	62,819	61,744	61,886
Expeditionary Airfields	<u>7,932</u>	<u>8,588</u>	<u>10,626</u>	<u>10,626</u>	<u>10,979</u>	<u>12,491</u>
Total, Other Aviation Systems Maint.	226,699	219,756	219,542	219,470	229,943	223,427

Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

8. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$219,470
2. Pricing Adjustments		8,747
A. Industrial Fund Rates	(4,769)	
B. Foreign Currency Adjustments	(962)	
C. Other Pricing Adjustments	(3,016)	
3. Functional Program Transfers		-44
A. Transfers Out	(-44)	
1) Intra-Appropriation	-44	
a) Transfer of Supply Reimbursable Funding		
This adjustment reflects the transfer of resources to correct improperly aligned reimbursable workload at the Inventory Control Points (ICPs). Efforts within the mission responsibilities of the ICPs were being financed reimbursably. This adjustment reflects the transfer from reimbursable to direct mission funding for this effort.	(-44)	
4. Program Increases		7,196
A. Other Program Growth in FY 1990	(7,196)	
1) Increase of 2% in the number of calibrations performed.	1,296	
2) Program growth required to reduce increased depot backlog of end item targets, components, and augmentation systems for the AQM-37C, BQM-34, ML1, BATS, BQM-74C, and MQM-8X Targets.	3,767	
3) Increased installations of target modifications to improve Aerial Tow targets and reeling machines.	791	
4) Increased repairs for high cost components of electronic sonar systems.	444	
5) Increase to provide sustained engineering, maintenance, and logistics support for the LM-730 Automatic Test Set, KS-153A, KS-144A, KS-87D and KA-99A aerial camera systems.	165	
6) Increased maintenance requirements for Coast Guard generated by delivery of new HH-60J aircraft and their accompanying Navy common avionics systems, the acquisition of new IFF's and TACAN's for shipboard use, and installation of NAVSTAR Global Positioning Systems.	733	

Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (continued)

5. Program Decreases			
A. Other Program Decreases in FY 1990			
1) Decrease of 1% in number of SE items reworked.	(-5,426)		-5,426
2) Decrease in Tactical Systems Software support for the EA-6B and MIASS.	-1,828		
3) Decrease in In-Service Engineering in support of Expeditionary Airfields.	-3,497		
	-101		
6. FY 1990 President's Budget Request			\$229,943
7. Pricing Adjustments			
A. Industrial Fund Rates	(2,989)		6,478
B. Other Pricing Adjustments	(3,489)		
8. Program Increases			
A. Other Program Growth in FY 1991	(6,003)		6,003
1) Initiation of depot level repair of QF-4W/S targets and components.	4,246		
2) Increased depot level repair of target augmentation systems and support equipment necessary to support aerial targets.	238		
3) Increased repair of high cost components of electronic sonar systems.	357		
4) Increased EAF equipment maintenance for the M-21 arresting gear system generated by the establishment of two new V/STOL sites and increased In-Service Engineering associated with the upgrade of the absorber shaft for the M-21 arresting gear system.	1,162		

Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (continued)

9. Program Decreases		
A. Other Program Decreases in FY 1991		
1) Decrease of 13% in number of calibrations performed at Calibration Labs.	(-18,997)	-18,997
2) Decrease of 12% in number of SE items reworked.	-5,149	
3) Decrease in sustained engineering, maintenance, and logistics support for aerial camera systems.	-9,871	
4) Decrease in Maintenance Support of Navy-owned equipment used by the Coast Guard.	-80	
5) Decrease in Tactical Systems Software support for the S-3B, F-14A, P-3C, F/A-18, and AV-8B.	-384	
6) Decrease for conversions of QF-86 targets and TALOS missiles to MQM-8X targets.	-1,903	
	-1,610	
10. FY 1991 President's Budget Request		\$223,427

Activity Group: Other Aviation Systems Maintenance (continued)
Claimant: Naval Air Systems Command

III. Performance Criteria		FY 1988	FY 1989	FY 1990	FY 1991
<u>Calibration</u>					
Type I Lab	Units Cost	11,946 3,106	12,007 2,882	12,141 2,993	13,016 3,298
Type II Lab	Units Cost	20,130 4,006	17,704 3,010	18,248 3,200	19,039 3,393
Type III Lab NIF	Units Cost	168,153 28,586	125,730 20,494	129,189 22,436	99,423 17,899
Non-NIF	Units Cost	68,561 15,769	71,967 17,328	73,482 18,961	71,260 19,132
Commercial	Units Cost	7,127 4,204	6,721 4,100	6,508 4,076	6,406 4,078
Total	Units Cost	275,917 55,671	234,129 47,814	239,568 51,666	209,144 47,800

Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued)	FY 1988	FY 1989	FY 1990	FY 1991
Overhaul of SE Mobile Electric Power Plants/Air Cond.	Units Cost 357 13,915	380 13,900	368 13,843	332 12,407
Tractors/Fire Trucks	Units Cost 267 7,526	265 7,754	257 7,722	246 5,926
Hydraulic, Pneumatic, and O2/N2 Supt	Units Cost 488 7,759	469 7,001	454 6,972	398 6,253
Armament Handling Equipment	Units Cost 8,620 10,319	8,233 10,127	8,007 10,116	7,022 9,149
Automatic Test Equipment & on Site Rework	Units Cost 188 24,270	223 27,037	216 26,927	189 24,142
Peculiar SE & Misc Avionics	Units Cost 3,623 12,769	3,139 11,112	3,298 12,016	2,930 10,772
Total	Units Cost 13,543 76,558	12,709 76,931	12,600 77,596	11,117 69,649

Activity Group: Other Aviation Systems Maintenance (continued)
Claimant: Naval Air Systems Command

<u>III. Performance Criteria (continued)</u>		<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Target Maintenance</u>					
AQM-37A/C	Units Cost	144 305	0 0	130 421	120 398
BATS (Ballistic A/C Target Sys)	Units Cost	0 0	0 0	1 28	1 28
BQM-34	Unit Cost	180 970	217 1,072	225 1,136	200 964
BQM-74	Units Cost	245 2,280	113 289	300 2,645	300 2,558
MLT (Mobile Land Targets)	Units Cost	4 10	0 0	2 38	2 39
MQM-8X (VANDAL)	Units Cost	26 739	20 956	45 1,478	45 1,464
QF-4	Units Cost	0 0	0 0	0 0	4 4,203
QF-86	Units Cost	87 2,036	45 1,113	44 922	40 751
TARGET SE	Units Cost	0 0	0 0	0 0	0 654
TA/AS (Target Auxiliary/Aug- mentation Sys)	Units Cost	0 125	0 0	0 200	0 518

Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

Performance Criteria (continued).		FY 1988		FY 1989		FY 1990		FY 1991	
<u>Target Maintenance</u>									
TOWS/REELS	Units Cost	0 206	0 0	0 0	0 0	0 416	0 434	0 434	0 434
Totals	Units Cost	686 6,671	395 3,430	747 7,284	712 12,011				
<u>Target Modifications/Conversions</u>									
MQM-8X (VANDAL)	TD/MODS Cost	1/21 314	1/25 631	1/36 1,102	1/27 931				
QF-86	TD/MODS Cost	1/13 3,677	1/13 3,293	1/13 2,976	1/2 1,647				
TOWS/REELS	TD/MODS Cost	-/- -	-/- -	1/13 791	1/14 843				
Totals	TD/MODS Cost	2/34 3,991	2/38 3,924	3/62 4,869	3/43 3,421				
<u>Target Engineering Services</u>									
	Manyears Cost	.8 100	- -	- -	- -				
Grand Total		10,762	7,354	12,153	15,432				

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Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued).	FY 1988	FY 1989	FY 1990	FY 1991
<u>Overhaul of Aircraft Cameras</u>				
Major Systems Units	1,085	1,086	1,086	1,085
Other Main.Actions Units	651	651	652	652
<u>Coast Guard (Units Maintained)</u>				
Radar	242	615	629	637
Communication	410	427	472	491
Navigation	393	343	386	422
Peculiar Support Equipment				
Calibration & Repair	140	159	159	159
<u>Airborne Mine Countermeasures</u>				
<u>Repairs</u>				
Major Units	2	2	2	2
Minor Units	23	23	18	18
<u>Overhauls</u>				
Calibrations Units	18	12	10	8
	170	170	165	175

Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

111. Performance Criteria (continued).

Aviation Tactical Software (STR'S - Software Trouble Reports) (Configuration items)

Weapons	FY 1988		FY 1989		FY 1990		FY 1991	
	Config Item	No. of STR's	Config Item	No. of STR's	Config Item	No. of STR's	Config Item	No. of STR's
TACAMO	1	3	1	3	1	3	1	3
S-3B	3	282	3	282	3	282	3	278
A-7	-	-	-	-	-	-	-	-
F-4	1	1	2	1	2	1	2	1
H-2/3	1	18	1	18	1	18	1	14
A-4M	1	11	1	11	1	9	1	11
F-14A	1	393	1	409	1	409	1	367
CAINS	6	9	6	9	6	9	6	9
A-6E	2	441	2	547	2	547	2	547
AWG-21	-	-	-	-	-	-	-	-
EA-6B	2	210	2	210	2	169	2	207
P-3C	5	473	5	536	5	536	5	481
P-3B	7	62	7	66	7	66	7	53
SH-60B	-	-	1	33	1	33	1	78
MTASS	1	6	1	6	1	2	1	-
AEDAS/GSS	2	12	2	12	2	12	1	13
F-18	3	245	3	248	3	280	3	249
EWSSA	4	965	4	845	4	845	4	1,036
HARM	1	8	1	8	1	8	1	11
AYK-14	-	-	-	-	-	-	-	-
AH-1	1	4	1	4	1	4	1	4
HCS	-	-	1	13	1	13	-	-
AV-8B	2	87	2	87	2	87	2	81
VH-30	1	14	1	14	1	14	1	20
EP-3E	-	-	-	-	-	-	1	33

Activity Group: Other Aviation Systems Maintenance (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
Expeditionary Airfields				
In-Service Engineering (\$000)	1,598	2,079	1,893	2,353
Field Technical Services (\$000)	1,687	2,361	2,551	2,709
Cost	19	20	20	22
Man Years				
EAF Equipment Maintenance (\$000)	1,547	2,297	2,345	3,230
EAF Equipment Maintenance/ Resurface AM-2 Matting (\$000)	3,100	3,889	4,190	4,199
Cost	3,647	4,575	4,949	4,958
Units				
Total Requirements	234,999	272,070	295,843	320,627
Total Funding	226,699	219,470	229,943	223,427
Total Backlog	8,300	52,600	65,900	97,200
Total Executable Backlog	0	49,100	65,900	80,800

IV. Personnel Summary.
 Not applicable

Department of the Navy
Operations & Maintenance, Navy
Exhibit OP-5

Activity Group: Maintenance Support - P9
 Budget Activity: 7 - Central Supply and Maintenance
 Claimant: Naval Air Systems Command

I. Description of Operations Financed

This activity group provides maintenance support services for aviation systems and equipment utilized in aircraft, calibration and support equipment, targets, airborne mine countermeasures, and air launched missiles and ordnance. Services include technical investigations, reviews and evaluation of maintenance requirements and integrated logistic support plans. The Maintenance support lines specifically finance on-site technical assistance and support to the fleet operating units, quality evaluation of in-service weapons, review and evaluation of maintenance requirements, review and development of integrated logistic support plans, and contractor interim support for support of Aviation Depot Programs.

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		
Air-Launched Missile Maint. Support	16,112	11,559	11,559	9,859	10,691
Aircraft Maint. Support	4,436	3,545	3,545	3,995	4,424
Airborne Mine Countermeasures Maint. Supt.	285	194	194	194	242

Activity Group: Maintenance Support (continued)
 Claimant: Naval Air Systems Command

A. Sub-Activity Group Breakout (Continued).

	FY 1988	FY 1989		FY 1990	FY 1991
	FY 1988 Actual	Amended Pres. Budget	Appro- piation	Current Estimate	Budget Request
Target Maint. Support	140	224	224	224	291
Calibration Maintenance Support	3,035	2,580	2,580	2,580	3,017
Support Equipment Maintenance Support	992	283	675	925	934
Total Maintenance Support	25,000	18,385	18,777	17,777	19,556
					19,366

Activity Group: Maintenance Support (continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$17,777
2. Pricing Adjustments		
A. Industrial Fund Rates	(338)	657
B. Other Pricing Adjustments	(319)	
3. Functional Program Transfers		
A. Transfers Out	(-931)	-931
1) Intra-Appropriation	-231	
a) Transfer of Supply Reimbursable Funding		
This adjustment reflects the transfer of resources to correct improperly aligned reimbursable workload at the Inventory Control Points (ICPs). Efforts within the mission responsibilities of the ICPs were being financed reimbursably. This adjustment reflects the transfer from reimbursable to direct mission funding for this effort.		
2) 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.	(-231)	
	-700	
		(-700)

Activity Group: Maintenance Support (continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (continued).

4. Program Increases			
A. Other Program Growth in FY 1990		(2,093)	2,093
1) Increased component testing and data analysis of fleet firings necessary to assess weapons performance and validate Reliability Centered Maintenance (RCM) factors for Air-Launched Weapons.	1,162		
2) Increased logistics/engineering support and data collection necessary for the effective execution of the depot calibration program at the various calibration activities.	349		
3) Increased engineering effort related to Target Maintenance.	59		
4) Increased effort in preparation of required Navy Training and Maintenance/Logistics Plans in support of the Airborne Mine Countermeasures program	41		
5) Increased weapons system engineering support for AH-1T/W block modification, implementation of Total Quality Management for Engineering Change Proposal (ECP) processing, and increased logistics support for the OV-10 modification.	482		
5. Program Decreases			
A. Other Program Decreases in FY 1990		(-40)	-40
1) Decreased support for the development of SE rework specifications under SE Maintenance Support.	-40		
6. FY 1990 President's Budget Request			\$19,556
7. Pricing Adjustments			622
A. Industrial Fund Rates	(340)		
B. Other Pricing Adjustments	(282)		

Activity Group: Maintenance Support (continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (continued).

8. Program Decreases

A. Annualization of FY 1990 Decreases

- 1) 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.

-812

(-500)

-500

B. Other Program Decreases in FY 1991

- 1) Decreased testing and data analysis of fleet firings necessary to assess weapons performance and validate RCM factors for air-launched weapons.
- 2) Decreased workload for Aircraft Maintenance Commercial Support Services and information technical systems.
- 3) Decreased logistics/engineering support and data collection in support of the depot calibration program.
- 4) Decreased support for the development of SE rework specifications.
- 5) Decreased engineering effort related to Target Maintenance.
- 6) Decreased effort in preparation of Logistics Plans for the Airborne Mine Countermeasures depot program.

(-312)

-84

-88

-96

-31

-8

-5

\$19,366

9. FY 1991 President's Budget Request

Activity Group: Maintenance Support (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria.

A. Air-Launched Weapons Maintenance Support

		FY 1988	FY 1989	FY 1990	FY 1991
Harm	Manyyears Cost	6.0 489	3.1 273	3.9 337	3.8 338
Harpoon	Manyyears Cost	10.2 886	5.6 497	6.8 618	6.3 590
Phoenix	Manyyears Cost	7.1 508	2.2 160	3.9 302	3.9 303
Shrike	Manyyears Cost	5.8 457	3.3 262	4.4 370	4.3 371
Sidewinder	Manyyears Cost	8.7 665	3.0 223	5.0 387	4.8 388
Skipper	Manyyears Cost	.8 54	.3 20	.5 37	.5 37
Sparrow	Manyyears Cost	11.4 871	3.7 273	6.5 509	6.3 511
Tow	Manyyears Cost	.1 9	.0 4	.0 5	.0 5
Walleye	Manyyears Cost	4.5 375	3.7 305	5.5 459	5.5 459
AEPS	Manyyears Cost	1.5 118	.6 48	1.0 80	1.0 82
Hellfire	Manyyears Cost	.1 6	.0 1	.0 2	.0 2

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Activity Group: Maintenance Support (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued).		FY 1988	FY 1989	FY 1990	FY 1991
Sonobuys	Manyyears Cost	1.8 122	.5 32	.9 66	.9 67
A/C Gun Ammunition	Manyyears Cost	.7 48	.3 16	.4 27	.4 27
AWCRE	Manyyears Cost	.1 7	.0 3	.1 6	.1 6
Bombs	Manyyears Cost	10.5 912	5.0 433	6.9 601	6.6 612
Bomb Racks	Manyyears Cost	.5 41	.3 19	.3 24	.3 25
Cartridge Actuated Devices	Manyyears Cost	8.7 684	3.6 279	5.7 464	5.5 470
Aircraft Gun Systems	Manyyears Cost	.2 18	.1 8	.2 16	.2 16
Missile Launchers	Manyyears Cost	.6 49	.3 23	.4 29	.3 29
Pyrotechnics	Manyyears Cost	2.4 164	.6 43	1.3 89	1.2 90

Activity Group: Maintenance Support (continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (continued).

Rockets/Launchers	Many years Cost	FY 1988	FY 1989	FY 1990	FY 1991
		6.1	2.1	5.2	5.1
		549	356	475	483
Submarine Warfare Airborne Devices	Many years Cost	.1	.0	.1	.1
		6	3	5	5
Totals	Many years Cost	87.9	38.3	59.0	57.1
		7,038	3,281	4,908	4,916

B. Other Technical Support

Missiles/ Ordnance	Many years Cost	FY 1988	FY 1989	FY 1990	FY 1991
		75.8	46.2	29.3	22.0
		4,167	2,637	1,737	1,344
Total	Many years Cost	75.8	46.2	29.3	22.0
		4,167	2,637	1,737	1,344

C. Navy Civilian Technical Services

Missiles	Many years Cost	FY 1988	FY 1989	FY 1990	FY 1991
		35.8	27.2	27.0	27.2
		2,395	1,905	1,951	2,035
Ordnance	Many years Cost	35.9	29.2	29.2	29.2
		2,512	2,036	2,095	2,166
Totals	Many years Cost	71.7	56.4	56.2	56.4
		4,907	3,941	4,046	4,201

IV. Personnel Summary: Not Applicable.

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

Activity Group: PROCUREMENT OPERATIONS SC
Budget Activity: 7 - CENTRAL SUPPLY AND MAINTENANCE
Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed

This activity group finances personnel and support costs for Naval Plant Representative Offices and Project Management Offices - AIR.

The Inspection and Contract Administration Program finances seven Naval Plant Representative Offices (NAVPROs) through FY 1989. Effective FY 1990 and outyears, NAVPRO Dallas at Vought Corporation transfers to the Department of the Air Force. The six remaining NAVPROs are located at Bethpage, Burbank, Lynn, Stratford, St. Louis, and Melbourne which provide Contract Administration Services as outlined in the Federal Acquisition Regulations (FAR) Part 42, including administrative contracting officer functions in assigned major weapons systems manufacturing plants (Grumman Aerospace Corp., Lockheed Aircraft Corp., McDonnell Douglas Corp., General Electric Co., Sikorsky Aircraft Division and Government Aircraft Factory, Australia). The 64 functions listed in the FAR are statutory requirements that must be performed under the Procurement Act of 1958 as amended (Public Law 85-804). The NAVPROs provide a single onsite government interface for the Department of Defense, National Aeronautics and Space Administration, and Foreign Military Sales Representatives with the assigned major weapon systems manufacturers. The NAVPROs assure that the manufacturer's quality assurance, engineering, industrial management, logistics and production, contractual processes, procedures and products conform to contractual requirements.

The Project Management Office - AIR (PMOA) program provides dedicated overall management for programs designated by the Secretary of Defense as major systems acquisition programs (SECNAVINST 5000.1A). The PMOA also has management responsibilities for naval aviation programs, subsystems and components. These include control of all resources (all support necessary for specific major systems acquisition programs); integrated planning, acquisition, initial support and readiness; also, directing implementation and appraising the performance of technical and business tasks assigned to the Naval Air Systems Command functional elements.

Activity Group: PROCUREMENT OPERATIONS SC (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

A. Sub-Activity Group Breakout.

		FY 1989					
		Amended Pres. Budget	Appro- piation	Current Estimate	FY 1990 Budget Request	FY 1991 Budget Request	
PROJECT MGMT OFFICE - AIR	FY 1988 Actual	27,503	24,339	24,206	27,209	32,652	40,875
INSPECTION & CONTRACT ADMINISTRATION		38,875	40,245	40,048	39,168	37,158	38,507
TOTAL PROCUREMENT OPERATIONS		66,378	64,584	64,254	66,377	69,810	79,382

Activity Group: PROCUREMENT OPERATIONS SC (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$66,377
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(588)	1,631
B. FY 1990 Direct Pay Raises	588	
1) Classified	(912)	
2) Wage Board	911	
C. Other Pricing Adjustments	1	
	(131)	
3. Functional Program Transfers		2,611
A. Transfers in		
1) Inter-Appropriation	(5,700)	
a) Transfer of Project Management Office-Air (PMOA) 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 88 and 145, respectively, of which 15 workyears represent annualization of increases in FY 1989.	(4,900)	
b) Functional transfer from the Army and Air Force for the Unmanned Aerial Vehicle (UAV) Joint Program Office. This transfer includes the increase of 6 end strength in FY 1990.	(800)	
B. Transfers out	(-3,089)	
1) Inter-appropriation	-3,089	
a) Transfer of NAVPRO Dallas to the Air Force.	(-3,089)	

Activity Group: PROCUREMENT OPERATIONS SC (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

4. Program Increases	141
A. Other Program Growth in FY 1990	(141)
1) Change in workforce mix	141
5. Program Decreases	-950
A. Other Program Decreases in FY 1990	(-950)
1) Decreased workyear support for project requirements	-152
2) Inspection and Contract Administration	-17
3) Project Management Office-Air	-781
Decrease in support costs for travel, other contracts, printing	
and reproduction, supplies and materials, equipment maintenance,	
and training.	
6. FY 1990 President's Budget Request	\$69,810
7. Pricing Adjustments	1,815
A. Annualization of FY 1990 Direct Pay Raises	(360)
B. FY 1991 Direct Pay Raises	360
1) Classified	(1,427)
2) Wage Board	1,425
C. Other Pricing Adjustments	2
	(28)

Activity Group: PROCUREMENT OPERATIONS SC (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

8. Program Increases		7,822
A. Annualization of FY 1990 Increases	(7,300)	
1) Transfer of Project Management Office-Air 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 122 and 105, respectively, of which 70 workyears represent annualization of increases in FY 1990.	7,300	
B. One-Time FY 1991 Costs	(251)	
1) Change in Paid Days	251	
C. Other Program Growth in FY 1991	(271)	
1) Inspection and Contract Administration support costs increased for travel, equipment purchases, supplies and materials, printing and reproduction, and equipment maintenance.	167	
2) Project Management Office-Air increase in other purchased services for expanded ADP services to support personnel in Cruise Missile and Electronic Warfare programs.	104	
9. Program Decreases		-65
A. Other Program Decreases in FY 1991	(-65)	
1) Change in Workforce Mix	-65	
10. FY 1991 President's Budget Request		\$79,382

Activity Group: PROCUREMENT OPERATIONS SC (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria.

A. Inspection and Contract Administration (NAVPRO)
 (\$ in Thousands)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Number of Direct fund NAVPROs	7	7	6	6
Total Number of Contracts	19,894	20,072	20,500	20,935
Value of goods and services accepted	\$10,944	\$10,744	\$10,977	\$11,214
Value of procurement actions	\$1,546	\$1,572	\$1,603	\$1,635
Number of procurement actions	6,734	6,859	6,996	7,136
Return on Investment	17 to 1	17 to 1	17 to 1	17 to 1
Value of unpriced orders negotiated (millions)	\$1,369	\$1,300	\$1,300	\$1,300
Value of unpriced order backlog (millions)	\$911	\$850	\$850	\$850

Naval Plant Representative Offices (NAVPROs) have been required to administer a continuing large number of contracts. Inability to perform timely negotiations generated a backlog of orders. The current FY 1989 goal is \$850 million. In order to maintain this backlog in FY 1990 or any additional reductions that may be imposed by ASN(S&L), resources must remain constant. With current resources, we are achieving a return on our investment of 17 to 1 through: cost savings by timely contract negotiations, technical cost advisories provided to procurement contracting officers, withholding of nonconforming materials, recoupment action in defective pricing breakout of spare parts, and increased competition. Intensified pricing will include more intensified review of subcontract costs, analysis of three year vice one year items pricing history, and review of a larger sample of contractor proposed material costs and labor hours.

Activity Group: PROCUREMENT OPERATIONS SC (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria (Continued).

B. <u>Project Management Office - AIR</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Number of Programs Managed	54	55	55	55
Total funds managed (\$ in Millions)	\$15,111	\$14,076	\$18,300	\$18,500
Number of Engineering Change Proposals processed	2,857	2,831	3,000	3,200

IV. Personnel Summary.

End Strength (E/S)

A. <u>Military</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Officer	348	388	418	426
Enlisted	305	332	334	332
	43	56	84	94
B. <u>Civilian</u>	<u>1,616</u>	<u>1,565</u>	<u>1,726</u>	<u>1,831</u>
USDH	1,616	1,565	1,726	1,831

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

Activity Group: COMMAND AND ADMINISTRATION EA
Budget Activity: 7-CENTRAL SUPPLY & MAINTENANCE
Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed.

The Command and Administration account finances personnel compensation, travel, administrative and other services in support of headquarters personnel. Personnel manage the development, acquisition, improvement and support of aircraft, aviation weapons and related equipment and support systems.

Specific Command and Administration functions include policy development, long-range planning and programming, management and distribution of resources, review and evaluation of programs, implementation and management control of depot level aviation maintenance programs at the Naval Aviation Depots, support of aeronautical depot maintenance, review of acquisition and depot maintenance.

Command and Administration also includes the Safety and Navy Occupational Safety and Health (NAVOSH) functions. The Safety function supports safety management and engineering efforts necessary to support aircraft, weapons and support systems. The NAVOSH function is designed to prevent mishaps, reduce injury and property damage costs, improve employee morale and well being and ensure compliance with regulatory requirements.

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		
Management HQs	22,622	21,837	21,831	22,386	23,334	23,873
Total Command and Admin	22,622	21,837	21,831	22,386	23,334	23,873

Activity Group: COMMAND AND ADMINISTRATION EA (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$22,386
2. Pricing Adjustments		546
A. Annualization of FY 1989 Direct Pay Raises	(198)	
1) Classified	197	
2) Wage Board	1	
B. FY 1990 Direct Pay Raises	(293)	
1) Classified	293	
C. Other Pricing Adjustments	(55)	
3. Program Increases		402
A. Other Program Growth in FY 1990	(402)	
1) Change in workforce mix	11	
2) Increase in the number of Navy Occupational Safety and Health inspections conducted and the number of programs/courses developed.	70	
3) Increase in the number of Safety procurement request inputs, system safety personnel supported, activities given safety assistance, and Weapons Safety Board support.	62	
4) Increase for additional training requirements for civilian acquisition executive training (Acquisition Career Management Program) and the centralization of ADP maintenance contracts.	259	
4. FY 1990 President's Budget Request		\$23,334

Activity Group: COMMAND AND ADMINISTRATION EA (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (continued).

5. Pricing Adjustments		649
A. Annualization of FY 1990 Direct Pay Raises	(141)	
1) Classified	140	
2) Wage Board	1	
B. FY 1991 Direct Pay Raises	(446)	
1) Classified	445	
2) Wage Board	1	
C. Other Pricing Adjustments	(62)	
6. Program Increases		81
A. One-Time FY 1991 Costs	(81)	
1) Change in paid days	(81)	
7. Program Decreases		-191
A. Other Program Decreases in FY 1991	(-191)	
1) Decrease in Headquarters materials and supplies, minor equipment and equipment maintenance.	-166	
2) Decrease in number of Safety Data Item Reviews	-25	
8. FY 1991 President's Budget Request		\$23,873

7 0061

Activity Group: COMMAND AND ADMINISTRATION EA (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 991</u>
Number of Field Activities Supported	25	25	25	25
Total Civilian Population Supported	42,393	43,284	43,024	43,054
Total Military Population Supported	4,646	4,569	4,579	4,609
Total Funding Managed (\$ in billions)	\$16,854	\$15,713	\$19,735	\$20,812
<u>Safety</u>				
Number of Training Courses	5	3	4	4
Number of Contractor Safety Audits	4	3	4	5
Procurement Request Inputs	200	140	160	170
Safety Data Item Reviews	199	100	80	50
Field Activity Audits	4	0	2	2
Specs/Standards Input	25	20	12	14
Project Audits/Logistic Review Groups	20	2	4	8
Weapons Safety Board Support	30	15	20	25
Advance Technical Safety Reviews	1	1	2	2
System Safety Studies	6	1	2	3
Aircraft Engineering Change Proposal Analysis Support	30	5	8	8
Activities Given Safety Assistance	32	21	25	26
Number System Safety Personnel Supported	40	60	65	70
<u>Navy Occupational Safety & Health (NAVOSH)</u>				
Number of Activities Supported	37	28	28	28
Number of Inspections Conducted	18	12	18	18
Number of Programs/Courses Conducted	40	26	20	20
Number of Programs/Courses Developed	14	3	10	10

Activity Group: COMMAND AND ADMINISTRATION EA (Continued)
 Claimant : NAVAL AIR SYSTEMS COMMAND

IV. Personnel Summary

End Strength (E/S)

A. <u>Military</u>				
Officer	27	31	31	31
Enlisted	23	25	25	25
	4	6	6	6
B. <u>Civilian</u>				
USDH	503	495	495	495
	503	495	495	495

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

Activity Group: FIELD OPERATIONS RB
Budget Activity: 7 - CENTRAL SUPPLY AND MAINTENANCE
Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed.

This activity group finances personnel and operating expenses required to develop long-range plans for the effective operation of naval aviation logistics systems, on-site instruction and training of organizational and intermediate level maintenance personnel, and technical documentation programs. This activity group also funds weapon system engineering and logistics support, secondary supply point functions, common military support functions, and operational support of the Navy Test Pilot School. Funds are provided at five major field activities: 1) Naval Aviation Depot Operation Center (NAVAWDEPOPCEN); 2) Naval Weapons Engineering Support Activity (NAWPNEGSUPPACT); 3) Naval Aviation Engineering Services Unit (NAESU); 4) NAVAIR Technical Services Facility (NAVAIRTECHSERVFAC); and 5) Naval Aviation Maintenance Office (NAAMO). These funds finance civilian personnel compensation, travel, automatic data processing, and related support costs required for engineering and technical support for Naval Air Systems Command and its designated project managers. Funding for the Operational Support-Field program is also provided for personnel salaries, benefits, travel, transportation, administrative and support services. The proposed conversion of Naval Avionics Center (NAC) and Naval Air Engineering Center (NAEC) in FY89 from industrial funding to O&M,N funding will not be initiated. Thus, O&M,N funds have been shifted out of NAC and NAEC back to customers budgets.

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

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
OPERATIONAL SUPPORT FIELD	98,049	86,944	88,063	94,039	92,936	99,989
MILITARY SUPPORT	22,337	135,226	18,070	13,215	6,647	6,946
NAVAL AVIATION DEPOT OPERATION CENTER (NADOC)	12,134	11,275	11,245	11,793	13,020	13,503
WEAPON SYS SUPPORT	82,230	69,465	69,246	65,920	71,932	75,387
TEST PILOT SCHOOL	16,604	15,560	15,439	15,439	15,458	15,687
NAVAL WEAPONS ENGINEERING SUPPORT ACTIVITY (NAVWESA)	16,294	15,519	15,483	14,439	11,921	11,927
NAVAL AVIATION ENGINEERING SERVICE UNIT (NAESU)	31,668	32,290	32,209	32,313	6,550	6,131
NAVAL AVIATION TECHNICAL SERVICE FACILITY (NATSF)	9,777	9,260	9,236	9,562	9,192	9,527
NAVAL AVIATION MAINTENANCE OFFICE (NAMO)	11,416	12,274	12,246	11,317	11,523	11,657
TOTAL FIELD OPS	300,509	387,813	271,237	268,037	239,179	250,754

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$268,037
2. Pricing Adjustments		7,251
A. Annualization of FY 1989 Direct Pay Raises	(1,311)	
1) Classified	1,309	
2) Wage Board	2	
B. FY 1990 Direct Pay Raises	(1,874)	
1) Classified	1,873	
2) Wage Board	1	
C. Stock Fund	(-186)	
1) Fuel	-139	
2) Non-Fuel	-47	
D. Industrial Fund Rates	(2,854)	
E. Other Pricing Adjustments	(1,398)	
3. Functional Program Transfers		-21,471
A. Transfers in	(4,300)	
1) Inter-appropriation	4,300	
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 by 74 and 93, respectively, of which 27 workyears represent annualization of end strength increases implemented in FY 1989.	(4,300)	

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).		
B. Transfers out		
1) Intra-Appropriation		
a) Transfer of Navy Civilian Technical Specialists from BA-7 to BA-2 to be consistent with the Department-wide funding policy to align funding. Responsibility to provide the maximum effective and efficient use of resources.	(-25,771) -25,172	
2) Inter-Appropriation		
a) Transfer of funds to the Army's Operation and Maintenance appropriation in support of the Defense Systems Management College (DSMC) which will oversee the DOD education and training program for the acquisition work force.	(-25,172) -599	
	(-599)	
4. Program Increases		5,515
A. Other Program Growth in FY 1990		
1) Change in workforce mix	(5,515) 276	
2) Naval Aviation Depot Operations Center (NADOC)	1,380	
Increased funds to support logistics engineering, configuration management, and age evaluation of commercial aircraft structures.		
3) Weapons Systems Support (WSS)	3,859	
Increased funds to support sustaining engineering, logistics, and program management functions concerning safety of flight, mission capability, and preventive analysis on out-of-production series of F-16N, H-3, H-53, and P-3 weapons systems, engines, common avionics, and common support equipment by the cognizant field activity.		
5. Program Decreases		-20,153
A. Other Program Decreases in FY 1990		
1) Operational Support - Field	(-20,153) -7,806	
Reduced funding for the Buy Our Spares Smart (BOSS) program to reflect internalization of Project BOSS in the procurement process. Reduced level of effort with respect to validation of reprourement technical data packages, reverse engineering, and quality assurance.		

7 0067

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

2) Naval Air Technical Services Facility (NATSF)	-598	
a) Reduction of 13 civilian workyears.	(-271)	
b) Reduced funding for the Buy Our Spares Smart (BOSS) program support.	(-327)	
3) Naval Weapons Engineering Support Activity (NAWESA)	-2,569	
a) Reduction of 10 civilian workyears.	(-327)	
b) Reduced funding for Buy Our Spares Smart (BOSS) contractor support.	(-1,836)	
c) Reduced travel and ADP systems support.	(-406)	
4) Naval Aviation Maintenance Office (NAMO)	-109	
Reduced funding for fleet support efforts such as Integrated Logistics Support (ILS) Review, Personal Computer Intermediate Maintenance Activity Model, Computer Aided Logistics Support (CALS) Support, and Supply Mobilization Planning Review.	-424	
5) Naval Aviation Depot Operations Center (NADOC)		
Reduction of 12 civilian workyears.	-169	
6) Test Pilot School (TPS)		
Reduced Aviation Depot Level Repairables (AVDLR) costs for the T-38 aircraft.	-1,343	
7) Naval Aviation Engineering Services Unit (NAESU)	(-1,128)	
a) Reduction of 29 workyears.	(-215)	
b) Reduction of support costs related to the Navy Civilian Technical Specialists transferred to BA-2	-7,135	
8) Military Support	(-73)	
a) Reduced host support services.		
b) Decrease reflects realignment of Industrial Preparedness type support costs to the Naval Industrial Fund to charge customers for this effort.	(-7,062)	
6. FY 1990 President's Budget Request	\$239,179	
7. Pricing Adjustments		
A. Annualization of FY 1990 Direct Pay Raises	(723)	
1) Classified	723	
B. FY 1991 Direct Pay Raises	(2,433)	
1) Classified	2,431	
2) Wage Board	2	
	6,010	

7 0068

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

C. Stock Fund	(128)	
1) Fuel	82	
2) Non-Fuel	46	
D. Industrial Fund Rates	(1,874)	
E. Other Pricing Adjustments	(852)	
		7,277
8 Program Increases		
A. Annualization of FY 1990 Increases	(4,600)	
1) 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 by 83 and 75, respectively, of which 45 workyears represent annualization of increases in FY 1990.	4,600	
B. One-Time FY 1991 Costs	(536)	
1) Change in paid days	536	
C. Other Program Growth in FY 1991	(2,141)	
1) Naval Aviation Technical Services Facility (NATSF) Increase for training and ADP services.	49	
2) Naval Aviation Depot Operation Center (NADOC) Increase for training and supply costs.	100	
3) Military Support Naval Air Engineering Center (NAEC) Increased funds for host support services.	70	

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

4) Weapon Systems Support (WSS) Increase in funds to support sustaining engineering, logistics, and program management functions concerning safety of flight, mission capability, and preventive analysis on out-of-production series of S-3A, T-2, F-14A, and P-3 weapons systems, bombs, airborne guns, engines, common avionics, and common support equipment by the cognizant field activity.	1,922	
9. Program Decreases		-1,712
A. Other Program Decreases in FY 1991		
1) Change in workforce mix		
2) Naval Aviation Engineering Service Unit (NAESU) Reduced engineering technical services support for the A-6, F-14, F/A-18, P-3, H-60, EA-6 and E-2.	(-1,712)	
3) Naval Weapons Engineering Support Activity (NAWMESA) Reduction to the information technology ADP systems support.	-339	
4) Naval Aviation Maintenance Office (NAMO) Reduced funding support for Intermediate Maintenance Activity Model, Commandant Marine Corps Support, and Aircraft Performance Management Systems.	-255	
5) Test Pilot School (TPS) Reduced AVDLR costs for the F/A-18 aircraft.	-352	
6) Operational Support Field (OSF) Decrease in funds for printing/reproduction and equipment maintenance.	-216	
7) Test Pilot School (TPS) Reduced AVDLR costs for the F/A-18 aircraft.	-269	
8) Operational Support Field (OSF) Decrease in funds for printing/reproduction and equipment maintenance.	-281	
10. FY 1991 President's Budget Request		\$250,754

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>OSE</u>				
Number of Program Management Offices/programs supported	54	55	55	55
Number of Requests for Cost Analyses/Estimates	1,233	1,145	1,125	1,240
Number of Engineering Change Proposals Staffed	4,183	3,900	3,819	4,200
Number of Test and Evaluation Master Plans (TEMPS) developed	230	210	192	198
Number of Systems Programs Managed (Life Cycle Mgmt)	4	4	4	4
Review of Critical Item Breakout Packages (BOSS)	210	200	100	100
Recertifications supported (JCMP)	128	155	144	149

Operational Support Field Personnel: Provide technical management support services necessary for 194 in-service aircraft and missile weapon systems and programs currently in the development, production or major modification stages. Manage four families of products (support equipment, propulsion systems, ship installations and aviation life support systems) and direct/manage subsidiary programs related to the life cycle of naval aviation material, i.e. Aviation Depot Level Repairables Program management.

NAVAVIONICEN

Support Provided for Military and Common Services
 Functions (Workyears)

Support Provided for Secondary Stock Point Function (Workyears)	2	2	2	2
	24	24	24	24

NAVAVIRENGCEN

Number of Inter-Service Tenants provided support
 Number of Active/Retired Military Personnel and Dependents Supported

	19	19	19	19
	8,500	8,500	8,500	8,500

WSS (Number of Documents)

NAVAIR Bulletins
 Publication Documentation
 Modification Documents

	371	297	324	340
	17,914	14,050	15,313	16,056
	1,725	1,383	1,508	1,580

Performance criteria for the Weapon Systems Support Budget can not only be measured by the number of documents completed, but by the type and magnitude of each task. The technical difficulty will vary from one task to another based on the complexity of the effort. (For example, an engineering investigation might take 1 direct man hour to complete or it may take 1500 direct man hours to complete).

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria (continued)

	FY 1988	FY 1989	FY 1990	FY 1991
<u>TPS</u>				
Number of TPS Aircraft Supported	35	35	35	35
Aircraft Maintenance M/Y	159	159	159	159
TPS Aircraft Flight Hours	7,430	7,465	7,415	7,415
Other Aircraft Flight Hours	1,500	1,500	1,500	1,500
Hours Per Month Per Instructor	23	23	23	23
Hours Per Month Per Student	20	20	20	20
Number of Pilots Trained	44	44	44	44
Number of Non-Pilots Trained	15	14	14	14
Number of Instructors	24	24	24	24
<u>NAVAVNDEPOPCEN (Workyears)</u>				
Product Support	44	63	63	63
Financial Management	48	10	10	10
Staff/Admin/JAGMG	53	54	49	49
Depot Operations	73	71	70	70
Contracts	34	33	30	30
Information Resource Management	10	12	9	9
Weapons Systems Support	24	0	0	0
Total	286	243	231	231
<u>NAESU (Workyears)</u>				
Mission of Aircraft:				
Attack	83	71	22	22
Fighter	106	123	26	26
Patrol	90	83	24	24
Electronic Warfare	68	50	15	15
Rotary Wing	31	30	8	8
Anti-Submarine	63	53	15	15
Admin	121	120	35	35
SE/AIE	84	85	26	26
Other A/C	71	72	20	20
Total	717	687	191	191

Activity Group: FIELD OPERATIONS RB (Continued)
 Claimant: NAVAL AIR SYTEMS COMMAND

III. Performance Criteria (continued)

NAVAIRTECHSERFAC				
Number of Technical Manuals Managed	FY 1988	FY 1989	FY 1990	FY 1991
Number of Technical Directives Reproduced	34,000	34,000	34,000	34,000
Number of Aeronautical Engineering Drawings Maintained (thousands of drawings)	2,700	2,600	2,500	2,600
Number of Microfilm Frames Issued	11,000	11,500	12,000	12,500
	24,000	20,500	17,500	19,000
NAVWPNEGUPPACT (Workyears)				
Number of Direct Workyears Supported	271	233	223	223
NAVAVNMAINTENOFF (Work Years)				
Fleet Support	23	22	22	22
NAMP (Naval Aviation Maintenance Plan)	1	1	1	1
ACC (Aircraft Controlling Custodian)	2	2	2	2
SERMIS (Support Equipment Resource Management Information System)	10	10	10	10
Modification Support	17	17	17	17
Product Support	42	36	35	35
Manpower/Training Support	4	4	4	4
Operations Support	48	47	47	47
Total	147	139	138	138

Activity Group: FIELD OPERATIONS R8 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

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>
	<u>430</u>	<u>533</u>	<u>532</u>	<u>532</u>
	274	316	315	315
	156	217	217	217
	<u>3,256</u>	<u>3,242</u>	<u>2,868</u>	<u>2,949</u>
	3,255	3,242	2,868	2,949
	1	0	0	0

Department of The Navy
Operation & Maintenance, Navy
Exhibit OP-5

Activity Group: Logistic Support Activities RI
Budget Activity: 7-Central Supply and Maintenance
Claimant: Naval Air Systems Command

I. Description of Operations Financed.

Logistic Support Activities funding ensures effective support for aviation systems and equipment; provides reviews of systems to simplify, coordinate, or delete as necessary; provides for standardization and configuration control and ensures that reliability and maintainability are designed into aviation systems and equipment. Included in the following paragraphs is a description of the programs funded in this Activity Group.

The Standardization program finances preparation of standardization documents necessary for the procurement and maintenance of major weapons systems, subsystems, equipment, and components relative to Naval aircraft. Use of standardized equipment reduces acquisition lead time and life cycle costs while improving operational readiness.

The Nuclear Weapons Safety and Security program supports the nuclear weapons delivery capabilities of U.S. Navy aircraft, their associated nuclear weapons and trainers, as well as NATO Nuclear Anti-Submarine Warfare (ASW) aircraft.

The Automatic Test Equipment (ATE) Test Program Maintenance provides for maintenance of electronic software test programs used by intermediate level (ashore and afloat) and depot maintenance personnel. These test programs are written in computer language to provide the stimulus and response necessary for automatic testing, trouble-shooting and verification of weapon systems, engines, missiles and ATE.

The Automatic Test Equipment Center is responsible for performing ATE systems engineering and logistic services to ensure that ATE systems are provided to effectively satisfy application requirements and operational needs, and to ensure that technical, configuration, and logistics elements compatibility is maintained between the ATE systems and the avionics systems and subsystems being supported.

Activity Group: Logistic Support Activities RI (Continued)
Claimant: Naval Air Systems Command

I. Description of Operations Financed (Continued).

The Installation of Aviation Ground Support Equipment program provides for "Equipment-Peculiar" modifications of existing buildings to the extent necessary to receive new weapons maintenance equipment to ensure that it is totally operational in all respects so as to sustain the required state of weapons systems operational readiness.

The Electromagnetic Interference program (EMI) addresses EMI problems existing in fleet aircraft. Through aircraft class evaluations, fleet investigation teams, fleet EMI problem reporting, and EMI data base management, EMI problems are identified and solutions recommended.

The Inactive Aircraft Storage and Material Reutilization program manages the storage and removal of aircraft and parts from aircraft that are in the Navy's active inventory at the Aerospace Maintenance and Regeneration Center (AMARC) at Davis-Monthan Air Force Base. This program also provides for stricken aircraft, reclamation and disposal of obsolete/damaged ground support equipment, tools and production equipment.

The Interservice Equipment Oil Analysis program provides technical support to oil analysis laboratories. In FY 1989, the Oil Analysis Program has been transferred to the Naval Aviation Maintenance Office (NAVO).

The Safety program supports safety management and engineering efforts necessary to support aircraft, weapons, and support systems for Naval Air Systems Command headquarters and its field activities. In FY 1989, the Safety Program has been transferred to the Command and Administration activity group.

The Navy Occupational Safety and Health program is designed to prevent mishaps, reduce injury and property damage costs, improve employee morale and well being and ensure compliance with regulatory requirements. In FY 1989, the NAVOSH program has been transferred to the Command and Administration activity group.

The Naval Aviation Logistics Command Management Information System (NALCOMIS) is a modern and effective management information system that will respond to aircraft maintenance and material management requirements aboard aircraft carriers, amphibious aviation helicopter assault ships (LPHs and LHAs), Marine aircraft group, and Naval/Marine Corps air stations. Specific objectives are to increase aircraft material readiness, reduce inventory loss and improve repairable turnaround time.

Activity Group: Logistic Support Activities R1 (Continued)
Claimant: Naval Air Systems Command

I. Description of Operations Financed (Continued).

The Naval Aviation Logistics Data Analysis (NALDA) program, effective FY 1989, includes functions (Aircraft Battle Damage Repair (ABDR), Fleet Information Systems, and Fleet Support) previously budgeted in the Weapons System Support (WSS) line. These funds have been properly realigned to the NALDA line as defined by OPNAV in their Functional Sponsor Plan for logistics information systems.

This program now provides for the following:

Maintenance for Remote Terminals - This program provides for the administration and cost for the maintenance of low and high speed remote terminals installed at all necessary geographical locations in support of the entire Naval aviation logistics community to solve logistics and maintenance problems.

Aircraft Battle Damage Repair (ABDR) - Encompasses the total requirement for supporting aircraft in a combat environment. ABDR conducts the damage and repair assessment, provides the material and trained personnel, and specifies the necessary repairs to quickly return battle damaged aircraft to the combat arena. ABDR provides increased capability during warfighting where heavier repair capabilities at forward sites will be required.

Fleet Information Systems - Responsible for identifying information system requirements and incorporating new requirements into existing or planned aviation information systems. Also this supports the Assistant Program Manager, Logistics (APML) for Naval Aviation Logistics Command Information System (NALCOMIS); program management for Computer Aided-Acquisition and Logistics Support (CALS); and aviation information systems functional management for all assigned fleet, depot, and Headquarters logistics information systems.

Fleet Support - Provides the command with Naval aviation maintenance program policy for all Integrated Logistics Support (ILS) and maintenance related efforts; functions as "Lead Systems" command for Integrated Logistics Support policy, Logistics Support Analysis (LSA), Level of Repair Analysis (LROA), and Technical Manual ILS standardized policy.

The Integrated Logistic Support (ILS) Management of Support Equipment (SE) program provides management information systems for aircraft and SE rework. It also supports inventory management, ILS management, and contractor maintenance engineering at the prime contractor and field activities for common SE, such as, avionics, handling and servicing, electronic warfare and ATE.

Activity Group: Logistic Support Activities RI (Continued)
Claimant: Naval Air Systems Command

I. Description of Operations Financed (Continued).

The Range Support program provides for logistic support of training range systems, for maintenance and operating costs of five telemetry receiving stations, installation of equipment for fleet training ranges, and support of the Tactical Aircraft Combat Training System (TACTS); for all costs necessary to operate the Pacific Missile Range Facility (PMRF); the costs associated with the Mobile Sea Range (MSR) including maintenance, target support, and data collection; and essential support and installation of Range Instrumentation (RI) systems. The ranges provide the primary means of fleet combat readiness training.

The Air Traffic Control Identification and Landing Systems Support program provides for the following:

Air Station Installation - Provides support for installation of Naval Air Traffic Control (ATC), Air Navigation Aids and Landing Systems (NAALS) at Navy and Marine Corps Air Activities worldwide and Active Fleet Ships with Tactical Air Control Systems. It also supports Fleet Area Control and Surveillance Facilities (FACSFAC) and other unique ATC requirements, such as Management and Engineering Studies, to ensure that the Navy will interface with the FAA's new National Airspace Plan.

Restoration/Rework - This program finances the depot overhaul of Air Traffic Control (ATC) systems, components, and other ancillary equipment at Navy and Marine Corps activities worldwide. It also finances overhaul of ATC equipment at Fleet Area Control and Surveillance Facilities (FACSFAC). Rework is performed by commercial and organic depots. These depots include Naval Shipyards, NESEA, NAVELEX Centers and commercial facilities.

Maintenance Engineering (ACLS DART) - This program provides for a portion of the Detection, Action and Response Technique (DART) program which is a coordinated priority effort for identification and expeditious correction of the most serious shipboard equipment problems affecting fleet material readiness. Funding provides technical support for AN/SPN-42A and AN/SPN-43A Automatic Carrier Landing System (ACLS) and for modifications and improvements.

Activity Group: Logistic Support Activities RI (Continued)
Claimant: Naval Air Systems Command

I. Description of Operations Financed (Continued).

Fleet Engineering/Technical Support by MOTU - Mobile Technical Units (MOTU) are located at major Navy ports to repair damaged, broken or inoperable ATC equipment. Repair of the ATC equipment is normally done while the ship is in port; however, on an emergency basis, MOTU personnel will go aboard the ship at sea to repair ATC equipment. Support is provided by Contractors and Naval technicians. These MOTU's are also used to train military personnel with on-site/on-hand instructions on the operating and maintenance procedures for updated ATC equipment.

INSURV (Board of Inspection and Survey) - Provides support to the Board of Inspection and Survey in accomplishing acceptance trials of ships, service craft and aircraft; to inspect new ships and service craft for suitability for the purpose intended, and to make recommendations on their acceptance by the Navy; to conduct surveys recommending disposition of ships and service craft which are considered to be beyond economical repair and modernization.

SSEOC (Surface Ship Engineered Operational Capability) - This program finances the support for NAVAIR cognizance electronic equipments installed in Fleet units subjected to the Engineered Operating Cycle (EOC) maintenance philosophy. Execution of this maintenance philosophy requires the exchange and refurbishment of specifically designated equipments on a predetermined schedule for those ships assigned to the EOC maintenance concept. Funds are provided for the restoration of changed-out equipments.

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	Amended Pres. Budget	FY 1989		FY 1990 Budget Request	FY 1991 Budget Request
			Appro- priation	Current Estimate		
STANDARDIZATION	4,489	1,570	4,011	3,811	4,142	4,251
NUCLEAR WPNS SAFETY	2,435	1,720	1,720	2,650	2,696	2,747
ATE TEST PRG & IN-SVC ENG	7,352	5,118	5,931	5,931	6,783	6,859
ATE CENTER	2,882	1,249	3,334	3,334	3,482	3,573
INSTALLATION AVIATION GSE	675	787	787	2,037	3,281	3,259
ELECTROMAGNETIC INTERFERENCE	9,432	6,980	7,590	8,627	8,954	9,207
INACTIVE A/C STORAGE & DISPOSAL	4,384	4,723	4,773	4,773	4,987	5,065
INTRSVC EQUIP. OIL ANALYSIS	618	462	462	0	0	0
SAFETY	343	264	264	0	0	0
AVOSH	821	575	575	0	0	0

A. Sub-Activity Group Breakout (Continued).

	FY 1988 <u>Actual</u>	FY 1989			FY 1990 <u>Budget Request</u>	FY 1991 <u>Budget Request</u>
		<u>Amended Pres. Budget</u>	<u>Appro. piation</u>	<u>Current Estimate</u>		
NALCOMIS	21,579	12,918	12,794	9,144	15,280	17,124
NALDA	5,697	3,309	3,809	11,905	13,505	13,373
OTHER SUPPORT PROGRAM	4,322	1,045	1,450	1,450	2,960	2,951
ILS MANAGEMENT OF SUPT EQUIP	20,762	14,307	18,172	16,935	16,748	16,342
ATC IDENTIFICATION & LANDING SYSTEMS	31,771	21,315	21,315	21,115	31,413	32,131
RANGE SUPPORT	44,085	29,847	28,995	41,026	43,687	50,574
TOTAL LOGISTICS SUPT ACT	161,647	106,689	115,982	132,738	157,918	167,456

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$132,738
2. Pricing Adjustments		5,012
A. Stock Fund	(-36)	
1) Non Fuel	-36	
B. Industrial Fund Rates	(2,642)	
C. Other Pricing Adjustments	(2,406)	
3. Functional Program Transfers		-1,475
A. Transfers out	(-1,475)	
1) Intra-Appropriation	-1,175	
a) SLUC funds to rent commercially leased space realigned to Budget Activity 9, Base Operations Support, for direct payment to General Services Administration Federal Building Fund.		
2) Inter-appropriation	-300	
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.		
1) NALDA	(-100)	
2) ILS Management of Support Equipment	(-200)	
4. Program Increases		25,795
A. Other Program Growth in FY 1990	(25,795)	
1) Standardization	121	
Increase will provide 1.3 manyears of effort at NAEC Lakehurst to continue maintenance of the standardization document data base.		

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

8. Reconciliation of Increases and Decreases (Continued).

2) ATE In-Service Engineering Increase in the number of test program sets in support of the Automatic Test Equipment program.	570
3) Installation Aviation GSE Increases in installations of 10 Flight Line Electrical Distribution Systems (FLEDS), 3 units of training equipment, 4 pieces of engine equipment, and 5 units of Ground Support Equipment (GSE). Increased funding also required to conduct Engine Test Facility Correlation and Certification program.	1,175
4) Inactive A/C Storage and Disposal Increased support for in storage maintenance of aircraft and parts in the Navy's active inventory.	1,190
5) NALCOMIS Increase in Phase II software implementation. Provides funding for Life Cycle Support of Software.	5,825
6) NALDA Increased support for the Aircraft Battle Damage Repair (ABDR) efforts supporting the Aircraft Wiring Information Systems projects; development of training and materials; and completion of the final phase of the ABDR manual.	1,272
7) Other Support Program Increase in NARDAC support, security services, and data required to present Navy's defense against contractor claims.	1,457
8) Air Traffic Control Identification and Landing System a) Detection Action Response Technique (DART) 1) Install two additional DART improvement modifications, i.e. (1) Radar Doppler Video Processor and (2) Ring Laser Gyro Improvement. 2) Increase in the number of Fleet pre-deployment groomings for Automated Carrier Landing System (ACLS) equipment under the Dart program. Provides additional prepositioned technicians for tech assists on ACLS equipments.	9,686 (1,200) 500
b) Install SPN-42/SPN-46 in new MILCON test site at NATC Patuxent River.	700 (700)

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (Continued).

- c) Integration of field change modification into the AN/UPX-29 and increase by three to six Identification Friend or Foe (IFF) shipboard certifications. (300)
- d) Fleet Area Control and Surveillance Facility (FACSFAC) Whidbey Island (1,400)
 Provides funding for site surveys, Base Electronic Systems Engineering Plans (BESEPS), and site preparation for remote sites in support of full FACSFAC at Whidbey Island.
- e) African Navigational Aids (100)
 Install navigational aids at Mogdishu and Berbera, Africa.
- f) Tactical Air Navigation Aid (TACAN) installation (100)
 Increased funding for CNO validated requirement to install TACAN at Arkansas County Airport.
- g) Instrument Landing System (ILS) installation (200)
 Increased funding for CNO validated requirement to install ILS at NAF Diego Garcia.
- h) Bright Radar Alphanumeric Display System (BRANDS) (500)
 Install BRANDS at 20 Naval Air Stations.
- i) ACLS Equipment Overhaul (2,124)
 Provides for restoration and changeout of AN/SPN-41, AN/SPN-42, and AN/SPN-43. Supports fleet urgent requirements for transmitters, antennas, antenna pedestals, radar reflectors, gearboxes, gearbox modifications and test equipment.
- j) Shore Station Enhanced Certification Program (SSECP) (200)
 Provides for field maintenance of AN/TRN-28 and AN/SPN-42.
- k) Surface Ship Engineering Operating Cycle (SSEOC) (500)
 Funds required for maintenance and overhaul of the AN/SRN-15A and OE-273A/URN.
- l) LPH pedestal restoration (200)
 Funds required for change out of AN/SPN-43 on LPH platforms.
- m) Radar Air Traffic Control Facility (RATCF) Master Alarm Panel (100)
 Increased funding to fabricate and install 10 RATCF alarm panels.

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (Continued).

n) AN/TPN-30	(662)
Perform site surveys and prepare BESEPS for installation of the AN/TPN-30 at eight Naval Air Stations.	
o) Extensive Field Maintenance (EFM)	(600)
Funds required for EFM of AG/GPN-27 and AN/FSA-52 systems. Program provides depot level overhaul once every five years. During EFM's, field changes are installed.	
p) IFF Equipment Restoration	(800)
Increased funding provides for depot level overall for the AIMS 4K XII system to support fleet requirements. Because of contract delays, old equipment needs to be overhauled to meet SCN and Fleet Modernization Program requirements for the AN/UPA-59 video decoders, AN/UPX-27 interrogators, AN/UPM-137A Test Set and AS-3430 IFF Antenna.	
9) Range Support	4,499
Increase in the purchase of Repair of Repairables (ROR). The Tactical Training Range (TTR) ROR funds provide for field activity support to accomplish depot level maintenance and repair of range systems not formally supported by an Inventory Control Point. The following systems are supported by the TTR ROR funding: Weapons Impact Scoring Set (WISS), Integrated Tracking and Control System (ITCS), Radar Bomb Scoring (RBS), Aircrew EW Training Range Systems (AEWIR), Range EM Simulator/Threat Platform Simulator (REWS/TPS), and the Tactical Aircrew Combat Training System (TACTS).	
5. Program Decreases	
A. Other Program Decreases in FY 1990	(-4,152)
1) Nuclear Weapons Safety	-54
Decrease in engineering support for nuclear certification of aircraft.	
	-\$4,152

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (Continued).

2) ATE Center	-30	
Reduced funding for the performance of test program set verification for tailored outfitting.		
3) Electromagnetic Interference	-47	
Decrease air-launched ordnance evaluations on electromagnetic environmental effects.		
4) ILS Management of Support Equipment	-744	
Reduction in the maintenance planning and calibration measurement requirements summaries.		
5) Range Support	-3,277	
The reduction is due to the decrease in "complex" installations. The Range Computer Modernization Program (RCMP) installation of \$1M and the Southern California Antisubmarine Warfare Range (SOAR I) installation of \$1.2M are two major range installations completed in FY 1989 and not reflected in FY 1990.		
6. FY 1990 President's Budget Request		\$157,918
7. Pricing Adjustments		4,997
A. Stock Fund	(26)	
1) Non-Fuel	26	
B. Industrial Fund Rates	(2,265)	
C. Other Pricing Adjustments	(2,706)	
8. Program Increases		8,576
A. One-Time FY 1991 Costs	(6,200)	
1) Range Support	6,200	
This one-time funding adjustment is associated with the expansion of the Southern California ASW Range (SOAR II). The project was originally planned and budgeted as a "turnkey" installation with OPN funds. The diversity of the subsystem now requires separation of procured equipment from technical support and installation contracts to be awarded in FY 1991.		

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases (Continued).

B.	Other Program Growth in FY 1991	(2,376)
1)	ATE In-Service Engineering	65
	Increase in the number of test program sets.	
2)	NALCOMIS	1,385
	Provides funding for Phase II Life Cycle Support of software.	
3)	NALDA	230
	Increase in support for MALDA telecommunications Phase II and validation of innovative repair technique project.	
4)	Air Traffic Control	696
	Increase in the number of landing system installations and Mobile Technical Units (MOTU) support.	
9.	Program Decreases	-4,035
A.	Annualization of FY 1990 Decreases	(-600)
1)	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.	-600
	a) NALDA	(-100)
	b) ILS Management of Support Equipment	(-300)
	c) Air Traffic Control Identification and Landing System.	(-200)
B.	Other Program Decreases in FY 1991	(-3,435)
1)	Standardization	-36
	Reduction in engineering support for preparation and maintenance of engineering specifications and standards.	
2)	Nuclear Weapons Safety	-30
	Decrease in engineering support for nuclear certification of aircraft.	

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

8. Reconciliation of Increases and Decreases (Continued).

3) ATE In-Service Engineering Decrease in program maintenance actions required to support test program sets.	-210
4) ATE Center Decrease in the Central Processing Unit (CPU) support for the Automatic Test Program.	-30
5) Installation Aviation Ground Support Equipment (GSE) Decrease in Training and Range Equipment installation projects conducted at aircraft intermediate maintenance activities.	-120
6) Electromagnetic Interference Decrease in aircraft electromagnetic environmental effects evaluations and support.	-51
7) Inactive Aircraft Storage and Disposal Reduction in support for instorage maintenance.	-57
8) NALDA Decrease in support for software development, data base maintenance, and user support costs.	-671
9) Other Support Decrease by 2 projects in Naval Regional Data Automation Center (NARDAC) systems support.	-105
10) ILS Management of Support Equipment Decrease in logistics support maintenance planning and site activation.	-649
11) Air Traffic Control Decrease by 8 the number of Naval Electronic Technical Services (NETS). In addition, reduction in equipment change-outs for the Surface Ship Engineering Operating Cycle (SSEOC) program.	-716
12) Range Support Decrease is due to the completion of the Tactical Aircraft Combat Training System (TACTS) flight support which is no longer required in FY 1991.	-760

10. FY 1991 President's Budget Request

\$167,456

7 0088

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria

STANDARDIZATION (In Units)
Project Completed DD-1585
Actions

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
QPL Actions	750	700	420	400
Standardization Document Improvement Proposal DD-1426	180	160	100	100
Engineering Support Request DD-339	150	150	90	75
Streamline and Automate SD-24 Specification Data Base	80	50	30	30
5 Year Overage Document Review Program	1,254	600	600	550

A complete and accurate set of military specifications and standards is essential to establishing a complete technical data package for competitive procurements. Several of the items listed above have a direct impact on enhancing competition in NAVAIR acquisitions, particularly the DOD Parts control Program implementation, QPL actions, and projects to prepare new and/or update overage documents.

International Standardization Document Program
 (Implementation Data) ASCC Air Std's/Working Parties, 10, 11, 12, 14, 15, 17, 20 and 104;
 Air Std's Reviews

	100	50	45	40

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Military Document Review	200	150	125	120
NAVAIR Implementation Report Reviews for NATO Working Parties AI, AE, ASP, AA, GSS; NATO Document Reviews	100	50	45	45
Computerization of System Spec references to facilitate tailoring	3	1	1	1
Metric Document Actions	40	20	20	20
<u>NUCLEAR WEAPONS SAFETY AND SECURITY</u>				
Engineering Assurance Tasks for Nuclear Certification: (Number of aircraft)				
Production Aircraft	6	6	7	8
Out-of-Production Aircraft	5	5	3	3
Non-US NATO	3	3	3	3
Basic Design Engineering Support of Weapons: (Number of weapons)	8	8	10	12
Nuclear Weapons System Safety Study process: (Number of studies)	5	5	5	5

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

ATE TEST PROGRAMS & IN-SERVICE ENGINEERING

This program maintains approximately 6,500 Test Program Sets of which 2,990 maintenance actions are required each year.

(In Units of Test Program Sets)

Safety of Flight	68	80	92	93
Strategic/Tactical Avionics Systems	610	475	546	550
Multiple/Batch Processing of Similar Systems	539	426	490	494
Mission and Flight	59	55	63	63
<u>ATE CENTER (In Units)</u>				
Engineering Change Proposals Reviewed	34	30	40	48
Field Bulletin Reviews	55	50	45	45
Support Equipment Requirements Data Packages	408	340	330	330
Automatic Test Equipment (ATE) Data Base Transactions	933	788	780	780
Test Program Set Verifications Tailored Outfitting	204	171	165	165
Lists Generations	246	207	200	200
Unsatisfactory Reports Processed	171	150	165	165

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

<u>III. Performance Criteria (Continued)</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Publications/Work Packages Reviewed	97	81	80	75
Off-line Maintenance Procedures Work Packages	49	41	40	40
Central Processing Unit Hours Provided for Automatic Test Program Generation	9,314	7,686	6,900	5,800
ATE Software Change Requests Processed	110	91	100	115
ATE Tapes Replaced Due to Breakage and/or Burn-out	534	442	430	450
<u>INSTALLATION OF AVIATION GROUND SUPPORT EQUIPMENT (GSE) (In Units)</u>				
Install Ground Support Equip.	25	25	30	30
Install Training Equip.	5	7	10	8
Install Range Equip.	3	3	7	6
Install Flt Line Elec. Dist. Systems	0	0	10	10
Engine Test Cell Program	0	0	1	1
Miscellaneous Systems	5	5	5	5

NOTE: There is no direct correlation between the number of equipment and the total cost of installation. A number of site-peculiar variables (soil conditions, building alteration requirements, length of primary utility runs, air conditioning requirements, lighting and physical security, etc.) determine the cost of each installation. The quantities shown are based on equipment delivery schedules and user-provided cost estimates.

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

ELECTROMAGNETIC INTERFERENCE

Aircraft EMI Hardness Evaluation

Evaluation Preparation	6	5		
Conduct Evaluation	6	5	5	5
Evaluation Analysis	6	5	5	5
(Number of Aircraft)				

Air-Launched Ordnance EMI Hardness Evaluation

Evaluation Preparation	12	10		
Conduct Evaluation	12	10	10	10
Evaluation Analysis	12	10	10	10
(Number of Ordnance Items)				

Aircraft, Ship, Air Station Electromagnetic Survey	10	8	8	8
(Number of Surveys)				

Air Industrial Electromagnetic Compatibility (EMC) Project (6 NADEP,s NADOC, NAC)	3	3	3	5

EMI Fleet Assist Visits	7	7	8	8
(Number of Visits)				

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

INACTIVE AIRCRAFT STORAGE AND MATERIAL REUTILIZATION
 (In Units)

Manhours	FY 1988	FY 1989	FY 1990	FY 1991
	119,835	68,123	99,243	103,071
Storage Inputs (Reserve A/C)	78	62	100	105
Storage Inputs (Pending Strike) (A/C)	40	33	8	19
Aircraft Withdrawals (A/C)	20	8	8	9
Instorage Maintenance (A/C)	1,157	1,053	1,721	1,631
Standard Represervation (A/C)	18	18	20	21
Aircraft Upgrade (A/C)	2	0	7	9
Annual Represervation (A/C)	24	24	24	31
Engineering Evaluations (A/C)	11	0	0	0
Strike/Disposal (A/C)	48	0	0	0
Engine Container Refurnishment (Containers)	41	0	0	0
Engine Storage Mgmt (Engines)	290	0	0	0

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

INTERSERVICE EQUIPMENT OIL ANALYSIS (In Units)

Joint Oil Analysis Labs Supported
 Carrier Type Labs Supported
 Mobile Van Labs Supported

FY 1988 FY 1989 FY 1990 FY 1991

52
27
0

SAFETY (In Units)

Number of training courses
 Number of contractor safety audits
 Procurement request inputs
 Safety data item reviews
 Field activity audits
 Specs/standard inputs
 Project audits/LRG's
 Weapons Safety Board support
 Advance technical safety reviews
 Aircraft ECP analysis support
 Activities given safety assistance

5
4
200
199
4
25
20
30
1
30
32

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

FY 1988 FY 1989 FY 1990 FY 1991

NAVY OCCUPATIONAL SAFETY AND HEALTH (NAVOSH)

Number of Activities Supported 57
 Number of Inspections Conducted 20
 Number of Personnel Trained 6,500
 Reduction in Disability Frequency (%) 3

NALCOMIS

Sites Implemented:

Marine Aircraft Groups (MAGS) 1
 Large Naval Air Stations -
 Medium Naval Air Stations -
 Small Naval Air Stations -
 Carriers (CV's) 5
 Retrofits 20
 Training 10
 LPH/LHA -
 Squadron Sites -

Software/Training Implemented:

Phase I (NRMM) 10
 Phase II (IMA/SCC) 2

Software Development/Maintenance:

Maintenance Phase I X
 Maintenance Phase II X

NOTE: All sites planned for implementation in FY90 and FY91 are phased out due to the required effort of the phase II Life Cycle Software Support Program.

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

NALDA

User activities supported

Telecommunications circuits:

Nationwide (WATS)
 Washington DC area
 Patuxent River area

Data storage on-line (gigabytes)

SYSTEM 2000 data bases maintained

Supporting Files maintained

COBOL programs maintained

Records received from data collection systems - to be
 applied to data bank (million)

Records applied to data bank (million)

NAMSO:

Number of Aviation 3-M transactions including
 maintenance performance, material and parts usage,
 flight and aircraft readiness statistics received
 from Fleet (million)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	70	0	70	70
	28	28	28	28
	59	59	59	59
	52	52	52	52
	80	80	80	80
	150	0	140	140
	400	0	320	300
	1,850	0	1,718	1,700
	276	276	276	276
	276	0	276	276
	4.8	4.8	4.8	4.8

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Number of Aviation 3-M reports for the fleet, headquarters commands, shore activities and support units:	55,000	55,000	55,000	55,000
Number of Documents:				
Lessons Learned Reports	0	4	4	4
SRC Inquiries/Documentation	0	156,000	165,000	175,000
Computer Reports	0	63,900	63,900	63,900
Serial Number Tracking Studies	0	15	15	15
Publications/Documentation	0	7	7	7
Aircraft Supported (NAMS0)	0	6	10	14
Engineering Support for development of Aircraft Battle Damage Technical Manuals (number of aircraft systems)	0	4	4	4

NOTE: Performance criteria for Aircraft Battle Damage Repair (ABDR) cannot be measured by the number of systems completed, but is measured by the type and magnitude of each project. The technical difficulty will vary from one task to another based on the complexity of effort.

OTHER SUPPORT PROGRAM

Security Alarm Systems (number of Systems)	14	12	14	14
Back-up data/services to present the Navy's defense against contractor claims (number of actions)	35	35	47	54
Aviation Configuration Master Plan (number of new systems)	445	220	330	330
Navy Depot Maintenance Interservice (DMI) Program (Intra/Interservice Studies/Investigations and Joint Service Logistics Analysis Efforts)	100	105	100	100
NARDAC Support (number of projects/systems)	12	10	12	10

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

ILS MANAGEMENT OF SE (\$)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
MEC	3,500	2,428	3,285	3,180
NAEC	5,200	6,164	6,874	6,486
NWS Concord	300	204	310	350
NATC/NESO	1,105	705	1,123	1,250
NARDAC	4,220	2,870	2,550	2,514
Commercial	6,437	4,564	2,606	2,562
TOTAL	20,762	16,935	16,748	16,342

Labor (W/Y)

MEC	35	24	33	31
NAEC	59	70	75	69
NWS Concord	3	2	3	3
NATC/NESO	14	9	14	15
Commercial	59	41	22	21

Production (Report in Thousands)

MEASURE	2,113	1,700	1,151	1,090
AMMRL/SERMIS	42	30	26	24

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

FY 1988 FY 1989 FY 1990 FY 1991

RANGE SUPPORT

Range Instrumentation:

Integrated Logistics Support (ILS)
 Cognizant Field Activity (CFA)/
 Lead Field Activity (LFA) (W/Y)
 Flight Support (W/Y)
 Telemetry Stations Supported
 Range Installations*
 CSS (W/Y)
 Repair of Repairables (ROR) (W/Y)

32	33	45	47
11	15	10	0
5	5	5	5
5	6	3	4
5	5	5	5
13	5	17	7

* Varies in cost based on complexity, type of equipment, and the installation site.

Pacific Missile Range Facility:

Range scheduling, safety, surveillance and operations
 (civilian/military W/Y)

95	95	95	95

Range Improvements, software development, and depot level
 maintenance of all technical equipment (civilian W/Y)

42	40	40	40

Mobile Sea Range:

Fleet Exercises

MSR Ops Support (W/Y)

MSR Exercise Support (W/Y)

4	2	4	4
33	17	33	33
23	12	23	23

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>Unit/\$000</u>	<u>Unit/\$000</u>	<u>Unit/\$000</u>	<u>Unit/\$000</u>
<u>AIR TRAFFIC CONTROL IDENTIFICATION AND LANDING SYSTEMS</u>				
<u>Air Station Installation</u>				
Air Traffic Control Modernization	51/4,488	37/2,568	26/2,069	30/2,445
Air Navigation Aids Installation	14/1,071	9/584	8/710	6/499
Landing System Installation	36/2,625	40/1,212	33/1,012	35/1,142
Fleet Area Control and Surveillance Facility	6/2,400	6/1,650	7/1,966	7/2,605
Diego Garcia Island Airport Surveillance Radar	-	-	-	-
ATC Management System	25/1,800	17/1,240	40/3,179	43/3,579
Other ATC Improvements, Equipment ECP's, Mods	22/1,136	17/496	11/1,090	12/950
MK XII AIMS IFF (Shipboard)	818/2,038	531/1,527	833/2,965	812/2,972
Navigation	40/290	40/298	40/308	39/318
Automatic Carrier Landing System (ACLS)	36/2,628	36/2,043	36/3,049	36/3,540
Naval Electronic Technical Services	32/907	42/1,180	20/1,593	12/983

Restoration/Rework

Tactical Air Navigation Aid (TACAN)	5/231	4/168	10/557	10/580
Extensive Field Maint (EFM)	8/1,249	6/940	6/875	6/910
Ground Control Approach EFM	598/4,217	457/3,290	-	-
Equipment Restoration*	4/158	3/113	10/796	9/749
TACAN Reliability Program	3/1,608	1/149	4/2,395	4/2,350
Automatic Carrier Landing System (ACLS) Restoration	-	-	130/1,700	118/1,605
Air Station Restoration*	-	-	120/1,540	115/1,523
Shipboard Elec. Restoration*	-	-	-	-

* Equipment restoration broken out by air station and shipboard beginning in FY 1990.

Activity Group: Logistic Support Activities RI (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria (Continued)

Maintenance Engineering
Automatic Carrier Landing System (ACLS)
Detect Action Response Technique (DART)

Pre Positioned Technicians
 Pre-Deployment Grooming
 Logistics Support Management
 AN/SPN-42A Improvement MODS
 AN/SPN-43A Improvement MODS

Fleet Engineering/Tech Support by
Mobile Technical Units (MOTU) (Shipboard)

MOTU (W/Y)

Inspections and Survey (INSURV) - (Shipboard)

INSURV
 Fleet Engineering/FMA
 Carriers
 Surface Combatant ships

Surface Ship Engineering Operating Cycle (SSEOC)

Equipments changed out
 Parts

AIMS MK XII-
 TACAN

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>Unit/\$000</u>	<u>Unit/\$000</u>	<u>Unit/\$000</u>	<u>Unit/\$000</u>
	15/ 825	15/ 650	15/ 890	15/ 875
	15/ 875	15/ 725	15/ 875	15/ 890
	16/ 625	15/ 534	15/ 468	15/ 481
	2/ 80	1/ 20	3/1,260	3/1,127
	1/ 466	-	-	-
	4/ 334	4/ 236	4/ 350	4/ 400
	39/ 299	39/ 303	-	-
	222/ 900	143/ 580	-	-
	-	-	5/ 110	1/ 115
	-	-	67/ 700	68/ 838
	4/ 40	5/ 45	-	-
	4	6	-	-
	3/ 168	3/ 196	4/ 325	3/ 246
	10/ 309	18/ 362	28/ 631	17/ 409

Activity Group: Logistic Support Activities R1 (Continued)
 Claimant: Naval Air Systems Command

IV. Personnel Summary:	FY 1988	FY 1989	FY 1990	FY 1991
End-Strength (E/S)				
A. Military	2	2	2	2
Enlisted	2	2	2	2

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

Activity Group: INDUSTRIAL PREPAREDNESS QD
Budget Activity: 7-CENTRAL SUPPLY & MAINTENANCE
Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed.

The Industrial Preparedness program provides Naval Air Systems Command (NAVAIR) the capability to develop formal plans with industry for emergency production of weapon systems. It involves planning with the manufacturers of critical items for a specific level of production sufficient to meet emergency requirements. This provides the Navy means to measure the responsiveness of private industry to produce critical weapon systems to meet the Navy's requirements in the event of mobilization or loss of contractor capability due to fire, flood, strike or other national emergency. Also, it provides for development of industrial preparedness measures to increase production capacity and insure utilization of improved manpower and critical materials. This data is also used to: provide status reports to Department of Defense (DOD) and Chief of Naval Operations (CNO) (on a required basis); establish and retain production capability responses to Congress, Joint Logistics Commanders, DOD, and CNO; and respond to Command Post exercises (such as Nifty Nugget, Proud Spirit, and Poll Station). The program funding also provides for stand-by maintenance of production plants and lines as well as the packing, crating and handling of special tooling and special test equipment being moved to mobilization storage facilities. Additionally, NAVAIR is designated lead systems command for the development, implementation and maintenance of an operational capability for a Navy-wide automated data base for industrial preparedness. This computer system will be the sole data base within the Navy specifically designed to provide the Navy the capability to analyze industrial preparedness information relative to Industry's capability to support Navy's peacetime, surge and mobilization requirements.

Activity Group: INDUSTRIAL PREPAREDNESS OD (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 <u>Actual</u>	FY 1989			FY 1990 <u>Budget Request</u>	FY 1991 <u>Budget Request</u>
		<u>Amended Pres. Budget</u>	<u>Appro- priation</u>	<u>Current Estimate</u>		
INDUSTRIAL READINESS	783	606	606	606	404	430
TOTAL INDUSTRIAL PREPAREDNESS	783	606	606	606	404	430

Activity Group: INDUSTRIAL PREPAREDNESS QD (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		606
2. Pricing Adjustments		20
A. Other Pricing Adjustments	(20)	
3. Program Decreases		-222
A. Other Program Decreases in FY 1990	(-222)	
1) Reduction of the Navy Automated Data Base for Industrial Preparedness Planning.	-222	
4. FY 1990 President's Budget Request		404
5. Pricing Adjustments		13
A. Other Pricing Adjustments	(13)	
6. Program Increases		13
A. Other Program Growth in FY 1991	(13)	
1) Increased studies for surge mobilization planning	13	
7. FY 1991 President's Budget Request		430

Activity Group: INDUSTRIAL PREPAREDNESS QD (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria.

Types of Effort:
 (# of units)

Industrial Preparedness Planning	439			
Surge Planning	3			250
Stand-by Maintenance of Production				3
Lines for Mobilization	1			
Fire Protection at Reserve Plant	1			0
Mobilization Support (manyyears)	2			0

IV. Personnel Summary: Not applicable.

7 0107

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

Activity Group: ENGINEERING SERVICES Q7
Budget Activity: 7-CENTRAL SUPPLY & MAINTENANCE
Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed.

Engineering and Support Services finances engineering and logistical support for aircraft launch and recovery, visual landing aids, wind measurement and aircraft/ship interface management; installation and modernization of airfield lighting and marking systems, emergency arresting gear and visual approach guidance systems; engineering and technical services in support of the Navy/Marine Corps mission; design and maintenance engineering for all in-service ground support equipment; and design engineering effort associated with generating remedial design changes essential to operational readiness of in-service fleet aircraft and related equipment.

This activity group also funds the operation of two specially equipped NKC-135 aircraft to simulate hostile Electronics Countermeasures (ECM) and the operation of one EC-24A airplane which provides jamming services similar to the NKC-135 and, in addition, provides Command, Control, Communication (C3) for ORANGE forces during fleet training; provides sustaining engineering for repair and maintenance of the electronic warfare systems; and provides for the operation of the Software Support Activity (SSA).

This activity group provides for reliability and maintainability implementation during the conceptual, validation, development, and production phases of major programs; service life extension of specific aircraft models or series; the preparation, update, reproduction and distribution of technical weapon systems manuals; and the investigation of deficiencies involving aviation life support equipment.

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

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	Budget Request
SHOREBASED LANDING AIDS	1,838	1,542	1,542	1,542	1,996	1,950	
AVIATION MOBILE FAC	5,666	4,072	4,372	4,072	5,834	5,864	
A/C STRUCTURAL LIFE SURV	9,163	3,776	3,776	7,847	9,201	9,504	
GND SUPT EQUIP ENGR SUPT	6,532	920	3,853	3,853	5,644	5,873	
SURVIVAL EQUIPMENT	4,556	3,709	3,709	3,709	3,507	3,630	
TECHNICAL PUBLICATIONS	17,387	12,708	12,708	12,708	16,766	17,213	
CATAPULTS & ARRESTING GEAR	24,056	8,709	22,653	22,653	29,975	31,057	
REALIABILITY & MAINTAINABILITY	1,287	995	995	325	0	0	
ENG SERVICES	16,636	10,923	11,933	6,963	7,500	13,350	
FEWSG/NATO MEWSG	12,028	8,367	8,367	11,667	12,714	12,247	
TOTAL ENG SERVICES	99,149	55,721	73,908	75,339	93,137	100,688	

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases

	<u>Amount</u>
1. FY 1989 Current Estimate	75,339
2. Pricing Adjustments	
A. Stock fund	
1) Fuel	(-112)
2) Non-Fuel	-125
B. Industrial Fund Rates	13
C. Other Pricing Adjustments	(1,916)
	(1,153)
3. Program Increases	
A. Other Program Growth in FY 1990	
1) Shorebased Landing Aids: install 5 additional Lighting Systems, Modernize 4 additional Lighting Systems.	(16,812)
2) Mobile Facilities:	402
Increase in funding for the configuration of 85 units, decreasing the backlog of Mobile Facilities to meet the Navy/Marine Corps inventory objective.	1,618
3) Aircraft Structural Life Surveillance:	
Increase will allow incorporation of the Structural Fatigue Data System (SFDS) into the T-2 and S-3A aircraft and provide for a CV load survey.	1,049
4) Ground Support Equipment:	
Additional funding will provide for increases in program planning documents revised/issued, support for fleet revealed deficiency investigations, Support Equipment Recommendation Data Sheets (SERDS) to be processed, pre-award surveys conducted, and proposals/bids to be evaluated.	1,601
5) Technical Publications:	
Increase will support an additional 7820 pages of updates to technical manuals and reduce the backlog by 4%.	3,625
	16,812

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

Amount

6,210
(3,870)

6) Catapults and Arresting Gear:

a) Aircraft Launch and Recovery Equipment:

Provides for additional support for new construction Air Capable Ships (ACS) including a new aircraft carrier and an additional 15 FFG, DD, and CGs entering the fleet in the FY-90 timeframe. The growth in Ship Depot Maintenance from no FY-89 carrier overhauls to one in FY 90 will require additional major flight deck related support. Additional new start initiatives include support for the CAI MOD II visual landing aid for LHA's, engineering change proposal support requirements driven by safety factors, and high priority FY-90 Aircraft Launch and Recovery Equipment Community initiatives.

b) Fleet Technical Support:

Provides for 7 additional Aviation Ship Installation Representative (ASIR) representatives (4 for the Helicopter Landing System program due to additional hulls, 2 for the Wind Measuring System program support, and 1 for new fuel certification program). Additional 3 Carrier and Field Service Units (CAFSU) representatives required to support an additional west coast carrier and also the new homeporting of a carrier in Bremerton, WA.

(886)

c) Aircraft/Ship Compatibility:

Provides for additional program support for Consolidated Automated Support System War Fighting Improvement Program (CASS) WIP, Notional Air Wing, space efficiency programs, Aviation Fuel Certification Program, and additional CVN and LHD interface support. Supports certification on new combatant and auxiliary USCG and MSC ships.

(402)

d) Aircraft Carrier Landing System Certification:

Provides for the additional certification and verification of Automatic Carrier Landing System (ACLS) with fleet aircraft on one aircraft carrier and one Naval Air Station.

(350)

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

	<u>Amount</u>
<u>B. Reconciliation of Increases and Decreases (Continued).</u>	
e) <u>Firefighting & Rescue:</u> Provides for Firefighting and Rescue Program engineering efforts to support P-16A fire truck modifications and the additional FY-90 update of 4 firefighting and rescue NATOPS/technical manuals.	(286)
f) <u>Helicopter Landing System:</u> Provides for additional fleet support due to the increasing numbers of LAMPS MK II HLS capable ships (95 ship inventory objective and approximately 7 new hulls in FY-90). The Shore Intermediate Maintenance Activity (SIMA) engineering support is being increased due to increasing numbers of mandatory change out items being overhauled and additional testing required for evaluation of engineering investigations.	(416)
7) <u>Engineering Services</u> Increase provides for increased FOT&E (OT-III) tests.	659
8) <u>FMSG: additional funds provide for:</u>	1,648
a) <u>Contractor Operation and Maintenance</u> Provides for contractor costs associated with operation and maintenance in providing an increase of 391 flight hours for FMSG aircraft operations.	(487)
b) <u>Fuel</u> Provides for aviation jet fuel to support increase of 391 flight hours for the FMSG large aircraft program (NKC-135/EC-24A). These additional hours are in direct support of fleet training and readiness.	(719)
c) <u>AF Managed SF Purchases</u> Provides for slight increase in aircraft material obtained through the Air Force Stock Fund due to increased flight hours.	(87)
d) <u>Provides for an increase at the Naval Air Laboratories in sustaining engineering for an additional 30 ALQ-167 and 2 AST-4 FMSG Airborne Electronic Jammer/Simulation systems.</u>	(355)

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

	<u>Amount</u>
B. Reconciliation in Increases and Decreases (Continued).	
4. Program Decreases	
A. Other Program Decreases in FY 1990	
1) Survival Equipment:	
Reduction in NADC and NWC support in responding to high priority	
fleet identified deficiencies in existing in-service Aviation	
Life Support Systems (ALSS) and reduction of 1.0 workyears of Basic	
Design Engineering (BDE).	(-1,971)
2) Reliability and Maintainability:	-360
Program phased out in FY 1989.	
3) Engineering Services	
Reduction in level-of-effort engineering functions at NAEC.	-335
4) FEWSG	-392
a) Reduced funds at Naval Avionics Center (NAC) for sustaining	
engineering support of the ALQ-167 and AST-4 FEWSG	-884
Airborne Electronic Jammer/Simulation systems.	(-86)
b) Depot Maintenance AF - Organic	
Provides for non-recurring cost of one major aircraft overhaul.	(-798)
5. FY 1990 President's Budget Request	93,137
6. Pricing Adjustments	3,040
A. Stock Fund	
1) Fuel	(99)
2) Non-Fuel	99
B. Industrial Fund Rates	0
C. Other Pricing Adjustments	(1,622)
	(1,319)

Activity Group: ENGINEERING SERVICES Q7 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

	<u>Amount</u>
B. Reconciliation of Increases and Decreases (Continued).	
7. Program Increases	
A. One-Time FY 1991 Costs	
1) One Time cost adjustment for acceleration/combination of IOT&E (Initial Operational Test & Evaluation) & FOT&E (Follow On Test & Evaluation) into one time FOT&E for AMRAAM testing for the F/A-18.	(5,200)
B. Other Program Growth in FY 1991	
1) Aircraft Structural Life Surveillance: Increase in analysis and tests associated with supporting fleet structural problems.	(1,288) 6
2) Ground Support Equipment Increase in engineering services to fleet	32
3) Catapults and Arresting Gear Provides for Helicopter Landing systems (HLS) problem investigation/design upgrading support for increasing numbers of LAMPS MK II HLS capable ships. (95 ships inventory objective with 3 additional hulls in FY-91).	51
4) Engineering Services Increase provides for higher priced FOT&E (OT-111) testing.	401
5) FEWSG: Provides for one major aircraft overhaul.	798
	6,488

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

<u>B. Reconciliation of Increases and Decreases (Continued).</u>		<u>Amount</u>
8. Program Decreases		
A. Other Program Decreases in FY 1991		
1) Shorebased Landing Aids:		
Reduced arresting gear installations	(-1,977)	-1,977
2) Mobile Facilities:	-106	
Decrease of 5 Mobile Facilities to be configured.	-111	
3) Survival Equipment	-6	
Decreased NADC support in responding to high priority fleet deficiencies by .1 workyear.		
4) Technical Publications:	-56	
Reduced funding for printing, distribution, and updates by commercial contractors.		
5) FEWSG	-1,698	
a) Aircraft Fuel	(-94)	
Provides for a reduction of 55 flight hours for NKC-135/EC-24A flight operations.		
b) Naval Air Laboratories	(-503)	
Reduced sustaining engineering for the ALQ-167 and AST-4 jammer/simulation electronic warfare systems.		
c) Contractor Operation and Maintenance		
Reflects the restructuring of the FEWSG Large Aircraft program and the sharing of costs by other program users.	(-1,101)	
The apparent program decrease will be offset by cost-sharing reimbursement from NAVSEA and NATO.		
9. FY 1991 President's Budget Request		100,688

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria.

Shorebased Landing Aids

Arresting Gear Installations	5	2	2	0
Lighting Systems Installations	8	10	15	15
Lighting Systems Modernizations	5	6	10	10

Aviation Mobile Facilities

Number of Mobile Facilities Configured	212	159	244	239

Aircraft Structural Life Surveillance Program

PROJECTS (Dollars in Thousands)

Structural Analyses	2,020	1,361	1,400	1,450
Fleet Problem Response	900	800	1,000	1,000
Structural Fatigue Data System	2,300	2,100	2,300	2,100
Flight Load Surveys	350	500	800	1,000
SAFE Program	2,287	2,006	2,151	2,213
Air Vehicle Engineering	806	780	1,150	1,200
Structural Testing	500	300	400	541

Ground Support Equipment Engineering Support

1. Number of program planning documents to be revised/issued: 328 193 283 290
2. Number of fleet revealed deficiencies to be investigated: 2,127 1,251 1,833 1,878
3. Number of design changes issued: 1,801 1,693 1,601 1,640

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Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria (Continued).

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
4. Number of Support Equipment Requirement Data (SEROS) packages to be processed:	1,801	1,093	1,601	1,640
5. Number of procurement data packages to be revised/produced:	1,801	1,093	1,601	1,640
6. Number of pre-award surveys to be conducted:	377	228	334	343
7. Number of proposals/bids to be evaluated:	1,376	835	1,223	1,235

FY 1990 and FY 1991 reflects transition from commercial to organic capability.

SURVIVAL EQUIPMENT

Aviation Life Support Systems (ALSS) has two measures of effectiveness:

1. Recurring support functions necessary to accomplish the responsibilities for assigned equipment.(numbers indicate amount of correspondence):

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
A. Basic Design Engineering	650	655	600	610
B. Non-GFE Production Support	650	650	698	742

2. Non-Recurring support functions necessary to accomplish the responsibilities for assigned equipment (numbers indicate amount of correspondence):

A. Basic Design Engineering	1	1	1	1
1) Perform Studies	12	12	9	10
2) Solve Fleet Related Design Problems (Non-ECP)	5	5	3	4
3) Prepare Class I ECPS				

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria (Continued).

FY 1988 FY 1989 FY 1990 FY 1991

B. Non-GFE Production Support: Consisting of Engineering Change Proposal (ECP) implementation. ECPs based on complexity and not number will dictate differing dollar values per ECP. ECPs are funded on a priority basis according to the following definitions:

- 1) Priority I - Aircrew Life Savings
- 2) Priority II - Operational Readiness
- 3) Priority III - Cost Saving

Number ECP Starts

Class I	5	2	6	7
Class II	24	15	24	22

Number ECP Completions

Class I	0	5	8	10
Class II	50	20	20	22

Number ECPs in Process

Class I	25	25	20	22
Class II	29	33	25	28

Number Annual Financial Plan

Transitioning Items	0	0	1	0
Started	0	0	3	3
Completed	3	3	0	1
Continuation				

3. Standardization (efforts supported):

	1	0	0	0

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria (Continued).

Technical Publications

Number of Technical Manual pages to be updated
 for in-service out-of-production Weapon Systems.

Recurring Expenses (includes Reprints, Rapid.
 Action Minor Engineering Changes, and Navy
 Technical Information Presentation System,
 Reproduction and distribution).

FY 1988 FY 1989 FY 1990 FY 1991

104,000 73,625 81,445 72,061
 7,970 6,966 7,001 7,088

CATAPULTS AND ARRESTING GEAR

In-Service Engineering/Fleet Problem Response

Aircraft launch and Recovery Equipment

Fleet Technical Support

Weapons Compatibility

Electric Power Interface Compatibility

Aircraft/Ship Compatibility

Aircraft Carrier Landing System Certifications

Firefighting and Rescue

Helicopter Landing System

FY 1988 FY 1989 FY 1990 FY 1991

14,708 12,571 17,486 17,872
 3,412 3,586 4,472 4,694
 616 640 665 690
 277 290 302 314
 1,957 2,035 2,437 2,558
 1,635 2,000 2,350 2,550
 670 565 851 800
781 966 1,412 1,579
 \$24,056 \$22,653 \$29,975 \$31,057

TOTALS

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria (Continued).

Reliability & Maintainability

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY1991</u>
Work-years of Engineering Support	13.3	4.2	0	0

ENGINEERING SERVICES

The following major categories of Basic Design Engineering functions are performed by 12 Non-NADEP Cognizant Field Activities (CFA)/Primary Field Activities (PFA):

(Annual Number of Actions)

Perform Engineering Change-Related Actions; i.e., Prepare/Review/Process Engineering Change Proposals, Design Change Notices, Deviations/Waivers, Beneficial Suggestions, Quality Deficiency Reports.

	1,500	800	750	750

Incorporate Approved Changes/Updates to Baseline Technical Data Packages; e.g. Drawings, Plans, Specifications, etc. (Total Inventory of approximately 87500 Data Packages)

	970	350	350	350

Generate Engineering Source Data to Update Material and Process Specifications

	150	55	55	55

Generate Updated Source Data for Technical Manuals.

	37	14	14	14

Generate Updated Source Data for Aircraft Tactical Manuals (NWP 55 series).

	27	10	10	10

Respond to Fleet Requests for On-Site Engineering Assistance.

	135	50	50	50

7 0120

Activity Group: ENGINEERING SERVICES 07 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria (Continued).	FY 1988	FY 1989	FY 1990	FY1991
Perform Safety Studies/Investigations.	50	50	50	50
Support Conduct of FOT&E OT-III by OPTEVFOR	18	14	17	12
<u>FEWSG/TEMP</u>				
<u>Project/Function</u>				
<u>NKC-135/EC-24A Aircraft</u>				
Flight Hours (HRS.)	976	900	1,291	1,236
Fixed Cost (\$000)	9,139	6,362	7,065	6,176
Contract Oper & Maint.				
Engine Overhauls (\$000)	0	424	440	456
Planned Depot Maint. (\$000)	0	751	0	781
Operation Costs (\$000)	1,441	1,330	1,924	1,931
Fuel	900	200	300	312
AF Material Support				
<u>FEWSG System Software Support</u>				
<u>FEWSG Airborne Electronic Warfare System (Workyears/Costs)</u>				
ALQ-170 (Workyears/Costs)	4,7390	9,01,030	9,01,030	9,01,066
	1,9158	5/ 535	5/ 535	5/ 540
<u>FEWSG System Software Support</u>				
ALQ-167 (Units/Costs)	0	106/620	136/800	156/600
AST-4 (Units/Costs)	0	27/415	29/620	39/385
	12,028	11,667	12,714	12,247

Activity Group: ENGINEERING SERVICES 07 (Continued)
Claimant: NAVAL AIR SYSTEMS COMMAND

IV. Personnel Summary.

Not Applicable

7 0122

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

Activity Group: CONTRACTOR TECHNICAL & MAINTENANCE SUPPORT R6
Budget Activity: 7 - CENTRAL SUPPLY & MAINTENANCE
Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed.

Contractor Engineering and Technical Support (CETS)

Contractor Engineering and Technical Support (CETS) Services are provided to Fleet Air Type Commanders' aviation 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 on those weapon systems and equipment required for operational readiness. The CETS services are provided by Contractor Field Services (CFS) representatives furnished by DOD contractors. These CFS representatives provide instruction, information and training in the installation, operation and maintenance of weapon systems, equipment and components. They may also use hands-on training incidental to other forms of training to demonstrate functions associated with a particular task during the instructional process. These services will transfer to Budget Activity 2 (General Purpose Forces) in FY 1990.

Contractor Maintenance Services (CMS)

Contractor Maintenance Services (CMS) provides contractor personnel who perform maintenance, inventory and material management, and supply support functions during the interim support period through the Navy Support Date (NSD).

These contractor personnel do field and forward area repair, expedite the turnaround of Non-RFI (Ready-for-Issue) components, manage bond rooms, lay-in initial spares, re-order when required, and generally maximize the availability of RFI components. This, in turn, maintains these aircraft in a higher state of readiness than would otherwise be possible.

Activity Group: CONTRACTOR TECHNICAL & MAINTENANCE SUPPORT R6 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed (Continued).

Contractors provide hands on maintenance at field level activities prior to the establishment of Navy organic capability. These contractor repairs provide immediate readiness to the fleet by reducing downtime and eliminating in-transit time for scarce components. These field level repairs also reduce the need and expense of returning these components to a commercial depot level activity.

CMS for peculiar and common avionics equipment/hardware provides for on-site personnel to perform maintenance, bond room management, configuration and inventory control, and reporting functions.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	FY 1989		FY 1990	FY 1991
	Actual	Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request
CNTR ENGR TECH SVC (CETS)	52,697	54,027	54,027	44,323	0
CNTR MAINT. SVCS	26,704	29,275	31,559	31,059	71,452
TOTAL CONTRACTOR TECH & MAINT SUPT	79,401	83,302	85,586	75,382	71,452

Activity Group: CONTRACTOR TECHNICAL & MAINTENANCE SUPPORT R6 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$75,382
2. Pricing Adjustments		
A. Industrial Fund Rates	(23)	2,572
B. Other Pricing Adjustments	(2,549)	
3. Functional Program Transfers		-36,649
A. Transfers Out		
1) Intra-Appropriation	(-36,649)	
Transfer of Contractor Engineering Technical Services (CETS)	-36,649	
from BA-7 to BA-2 to be consistent with Department wide funding		
policy to align funding responsibility to provide the maximum		
effective and efficient use of resources.		
4. Program Increases		37,240
A. Other Program Growth in FY 1990.	(37,240)	
1) The E-6A replaces the EC-130 TACAMO (Take Charge and Move	24,753	
Out) aircraft. A total of twelve new E-6A's will be opera-		
tional during FY 1990. In addition to first site activation		
in FY 1989, a second operational site will be activated in		
FY 1990 to support second squadron. Requirements for supply		
support, inventory management, support equipment storage		
and maintenance, technical library and technical manual		
changes. ADP support, "O" level maintenance support and material		
replenishment increase due to stand-up of second site and		
additional flying hours.		
2) Increased Contractor Maintenance Services (CMS) for MH-53 new	4,097	
"E" model; Navy/MC F-18 night attack version; F-14A and F-14D		
versions; EA-6B increased inventory of block 86 aircraft; P-3C		
new radar system; AV-8B new digital engine control system;		
OV-10 Service Life Extension Program (SLEP) for 13 aircraft;		
SH-60 new weapon system; and A-6 avionics upgrade.		

Activity Group: CONTRACTOR TECHNICAL & MAINTENANCE SUPPORT R6 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

3) Increased Contractor Maintenance Services (CMS) for new Avionics and Support Equipment. New Avionics include: ARIES II; AN/ALQ-162; AN/ALQ-164; AN/ALQ-156(V); AN/AAR-47; AN/AVR-2; AN/APR-39A(EX-2); AN/ALQ-123; AN/ALQ-165; Navy Aircrew Common Ejection Seats (NACES); and Aerial Refueling Store. New Support Equipment includes: Aircraft Propulsion Support Equipment; Generic Automatic Propulsion Test System; F/A-18 and T-56 Peculiar Support Equipment; T41 Engine Monitoring System; and Interim Contractor Supply Support.	8,390	
5. Program Decreases		-12,143
A. Other Program Decreases in FY 1990		(-12,143)
1) Decrease in Contractor Maintenance Services for C-2A, AH-1W and H-46 which all reach NSD in FY 1989. Decrease funding for Tactical Aircraft Mission Planning System (TAMPS).		-2,962
2) Reduced Contractor Engineering Technical Services (CETS) for attack, fighter, patrol, anti-submarine, rotary wing and electronic warfare platforms, for support equipment, common avionics test equipment and other CETS support.		-9,181
6. FY 1990 Presidents Budget Request		\$66,402
7. Pricing Adjustments		
A. Industrial Fund Rates		1,994
B. Other Pricing Adjustments	(14)	(1,980)

Activity Group: CONTRACTOR TECHNICAL & MAINTENANCE SUPPORT R6 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

8. Program Increases		18,656
A. Other Program Growth in FY 1991	(18,656)	
1) Increased Contractor Maintenance Services (CMS) for E-6A to include support for all sixteen aircraft (including four additional E-6A's which become operational aircraft in FY 1991) with attendant increase in flying hours. Requirements include: inventory management, support equipment storage and maintenance, technical library and technical manual changes, ADP support, "O" level maintenance support and material replenishment.	17,556	
2) Increased Contractor Maintenance Services (CMS) for rewiring of OV-10's to convert to OV-10D's; A-6 Upgrade; and new weapon system for SH-60F.	558	
3) Increased Contractor Maintenance Services for Avionics include: Airborne Self-Protection Jammer; configuration changes for the EP-3E mission; Fleet Electronic Warfare Support Group (FEMSG) requirements; Navy Air Common Ejection Seats (NACES); and special projects programs.	542	
9. Program Decreases		-15,600
A. Other Program Decreases in FY 1991	(-15,600)	
1) Reduced support for the F/A-18, F-14, EA-6B, P-3C and AV-8B programs.	-13,473	
2) Decreased funding for Support Equipment due to some equipments reaching NSD.	-883	
3) Decreased Contractor Maintenance Services (CMS) for C-2A and the S-3B which reaches NSD in FY 1991.	-1,244	
10. FY 1991 President's Budget Request		\$71,452

Activity Group: CONTRACTOR TECHNICAL & MAINTENANCE SUPPORT R6 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria.

Contractor Engineering and Technical Support (CEIS)

<u>AIRCRAFT MISSION</u>	<u>FY 1988 WY / \$000</u>	<u>FY 1989 WY / \$000</u>
Attack	89.2/ 6,740	60.0/ 5,179
Fighter	127.1/ 9,069	104.3/ 8,815
Patrol	26.1/ 2,142	25.0/ 2,162
Anti-Sub	93.0/ 6,561	60.0/ 4,866
Rotary Wing	47.1/ 3,475	46.0/ 3,444
Electronic Warfare	80.0/ 6,997	58.0/ 5,886
SE/CATE	123.0/ 9,266	77.0/ 6,941
Other	102.0/ 8,447	72.0/ 7,030
Total	687.5/52,697	502.3/44,323

Activity Group: CONTRACTOR TECHNICAL & MAINTENANCE SUPPORT R6 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria (Continued).

Contractor Maintenance Services (CMS)

WEAPON SYSTEM

MH-53	FY 1988 (\$000)	FY 1989 (\$000)	FY 1990 (\$000)	FY 1991 (\$000)
C-2A	\$ 749	\$ 525	\$ 749	\$ 749
F-18	2,000	1,925	900	0
F-14	6,311	4,900	5,250	1,332
EA-6B	4,095	3,444	5,098	1,209
P-3C	1,956	2,200	2,600	1,123
AV-8B	1,399	1,375	1,600	0
AH-1W	817	950	2,008	1,000
S-3B	263	475	0	0
OV-10D	271	245	200	0
TAMPS	0	183	220	440
H-46	1,133	850	0	0
SH-60F	1,500	487	0	0
E-6A	0	500	634	695
SH-60H	0	11,495	36,248	53,804
A-6 Upgrade	0	80	0	0
	0	0	360	720
Subtotal Aircraft	\$20,494	\$29,634	\$55,867	\$61,072
Avionics Total	533	625	3,435	4,060
Support Equipment Total	5,677	800	7,100	6,320
Grand Total	\$26,704	\$31,059	\$66,402	\$71,452

IV. Personnel Summary: Not applicable

DEPARTMENT OF THE NAVY
OPERATION & MAINTENANCE, NAVY
EXHIBIT OP-5

Activity Group: ANTISUBMARINE WARFARE SUPPORT - RF
Budget Activity: 7-CENTRAL SUPPLY & MAINTENANCE
Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed.

This activity group finances expenses required to increase the reliability and maintainability of the Fleet In-Service ASW Avionics Systems, to provide acceptance testing of production sonobuoys, to perform maintenance of Air Common Acoustic Processing (ACAP) software and hardware configuration control, and for the procurement and updating of the test systems and related equipment required during the preproduction testing of sonobuoys. Detailed explanations of these efforts follow:

A. AIR ASW Fleet Support:

This program provides direct support to fleet units on a daily basis with resident field representatives located at five (5) ASW Naval Air Stations. These representatives provide technical consultation and engineering support with test and evaluation backup provided by NAVAIR and its laboratories for problems beyond the capability of the field representatives. This fills a need not provided by any other existing program and does not conflict with the scope of any other program. The program provides for improvement in operational availability and mission effectiveness of all Air ASW platforms by solving technical and engineering problems in reliability, maintainability and equipment utilization.

Supported work areas include current equipment problem resolution and estimated coverage of problems encountered on newly introduced equipment. All work is subject to immediate change in priorities due to unexpected, unfunded operational problems as required by the program charter.

Activity Group: Antisubmarine Warfare Support (Continued)
Claimant: Naval Air Systems Command

I. Description of Operations Financed (Continued).

B. Sonobuoy Support:

The main thrust of this program is the support of the production sonobuoy acceptance test effort. The production sonobuoy program procurs five types of sonobuoys that require lot sample testing each year, as the means of accepting or rejecting, per the contract quality assurance requirements.

The activities involved in this program include the Naval Avionics Center, Indianapolis, Indiana; the Naval Air Station (NAS), Brunswick, Maine; the Naval Weapons Support Center (NWSC), Crane, Indiana; and the Sonobuoy Quality Assurance Facility at St. Croix, U.S. Virgin Islands along with associated vessels and aircraft.

The program effort to be funded in the OM&N appropriation includes:

1. Production sonobuoy quality assurance acceptance testing. This includes facilities leases, maintenance of facilities, two P-3 aircraft and two ocean going test vessels plus replacement parts.
2. Headquarters contractor support.
3. Integrated Logistic Support (ILS) for sonobuoys. This effort is for ILS engineering support for incorporating new sensor requirements into the sonobuoy ILS program, Fleet training for sonobuoy employment, development of suitcase-type training material and for Fleet support in the areas of safety, handling, transportation and stowage of sonobuoys.
4. Sonobuoy Special Test Equipment provides for procurement and updating of the test systems and related equipments that are required during the preproduction testing of sonobuoys. The validity of the data gathered during this testing is dependent upon the reliability and quality of the test complex. To insure that the test facilities that comprise the test complex are adequately instrumented to test the performance and reliability of the present and future sonobuoys, the procurement of new equipment and the updating of the present systems are necessary.

Activity Group: Antisubmarine Warfare Support (Continued)
 Claimant: Naval Air Systems Command

I. Description of Operations Financed (Continued).

C. Software Maintenance:

ASW software for AN/UYS-1 Advanced Signal Processor (ASP) is the Air Common Acoustic Processing (ACAP) program used by the S-3 and P-3 aircraft. This software will provide the Air ASW Fleet with the acoustic processing capability to meet the projected threat. The first release of this software reached the Fleet in FY 1988 and will require maintenance to resolve deficiencies, incorporate interface changes, etc. At the same time funding is also required to support the review, analysis and evaluation of proposed changes to ACAP.

This program provides a dedicated software laboratory for the implementation and maintenance of ACAP operational software, including ASP hardware, associated computer support, integration and display hardware, software, simulation software and system software. This laboratory is located at the Naval Air Development Center (NADC), Warminster, PA.

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
AIRBORNE ASW SUPPORT	2,758	1,815	1,815	1,715	1,624	2,549	
ANTISUBMARINE WARFARE SUPT	2,758	1,815	1,815	1,715	1,624	2,549	

Activity Group: Antisubmarine Warfare Support (Continued)
Claimant: Naval Air Systems Command

	<u>Amount</u>
B. <u>Reconciliation of Increases and Decreases</u>	
1. FY 1989 Current Estimate	1,715
2. Pricing Adjustments	
A. Industrial Fund Rates	(75)
B. Other Pricing Adjustments	(8)
3. Program Decreases	-174
A. Other Program Decreases in FY 1990	(-174)
1) Decrease in sonobuoy support. Deferred maintenance/repair of test platforms and equipment.	-174
4. FY 1990 President's Budget Request	1,624
5. Pricing Adjustments	60
A. Industrial Fund Rates	(53)
B. Other Pricing Adjustments	(7)
6. Program Increases	865
A. Other Program Growth in FY 1991	(865)
1) Sonobuoy - provide technical assistance for training manuals for ILS for 3 sensors going into production in FY 1992.	575
2) Software - increase in computer time usage at NADC due to increase in new sensors going into production.	290
7. FY 1991 President's Budget Request	2,549

Activity Group: Antisubmarine Warfare Support (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria.

	FY 1988 (\$000)	FY 1989 (\$000)	FY 1990 (\$000)	FY 1991 (\$000)
Air ASW Fleet Support				
Engineering Test & Evaluation	176			
Program Engineering Coordination	26			
Helicopter Sonar	78			
Sonobuoy Receivers	125			
ASW Data Links	52			
ASW Radar	103			
Magnetic Anomaly Det.	52			
ASW Tape Recorders	78			
Tactical Navigation	39			
Tactical Displays	52			
Electronic Warfare	81			
Total	862	0	0	0
Sonobuoy Support				
Production Quality Assurance Testing				
Support (Includes Range Government Rep.,				
Fuel NAS Brunswick, Test Mgmt Support)				
Contractor	830	630	511	1,040
Total	291	225	229	309
	1,121	855	740	1,349
Software Support				
ACAP Support	650	730	754	1,000
Computer Time	125	130	130	200
Total	775	860	884	1,200

IV. Personnel Summary: Not Applicable.

Department of the Navy
Operations & Maintenance, Navy
Exhibit OP-5

Activity Group: Maintenance and Repair of Real Property F4
Budget Activity: 7 - Central Supply & Maintenance
Claimant: Naval Air Systems Command

I. Description of Operations Financed.

Maintenance of Real Property funds provide for facilities maintenance to NAVAIR field activities. These activities are split roughly 50% host and 50% tenant activities.

Minor Construction funds finance the following two areas:

- 1) The construction that is incidental to normal maintenance and repair projects and in support of new mission requirements not funded by individual programs.
- 2) Installation of physical security equipment, ie. taut wire fence, closed circuit television, etc. and upgrading the facility to protect critical mission readiness assets at the individual field activities.

In FY 1989 and the outyears Minor Construction funds to install procured aviation support equipment have been transferred from minor construction to installation aviation ground support equipment in the Logistic Support Activities activity group.

Activity Group: Maintenance and Repair of Real Property F4 (Continued)
 Claimant: Naval Air Systems Command

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	FY 1989			FY 1990	FY 1991
	Actual	Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request	Budget Request
MAINTENANCE & REPAIR OF REAL PROPERTY	13,593	6,834	11,031	11,162	11,922	12,702
MINOR CONSTRUCTION	4,682	3,022	3,394	1,784	3,393	3,561
PHYSICAL SECURITY	0	78	78	78	88	8
TOTAL, MAINT & REPAIR OF REAL PROPERTY	18,275	9,934	14,503	13,024	15,403	16,271

Activity Group: Maintenance and Repair of Real Property F4 (Continued)
 Claimant: Naval Air Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$13,024
2. Pricing Adjustments		486
A. Industrial Fund Rates	(359)	
B. Other Pricing Adjustments	(127)	
3. Program Increases		2,357
A. Other Program Growth in FY 1990	(2,357)	
1) Because of increasing age of facilities, additional minor construction funding is required to maintain the facilities in usable conditions and to allow for minimally meeting new mission requirements.	2,357	
4. Program Decreases		-464
A. Other Program Decreases in FY 1990	(-464)	
1) Decrease reflects realignment of Industrial Preparedness type support costs to the Naval Industrial Fund to charge customers for this effort.	-464	
5. FY 1990 President's Budget Request		\$15,403
6. Pricing Adjustments		522
A. Industrial Fund Rates	(354)	
B. Other Pricing Adjustments	(168)	
7. Program Increases		346
A. Other Program Growth in FY 1991	(346)	
1) Increase funding at Naval Weapons Evaluation Facility (NWEF), Naval Aviation Maintenance Office (NAVO), Naval Aviation Depot Operations Center (NADOC) and Pacific Missile Range Facility (PMRF) to maintain the facilities in usable conditions.	346	
8. FY 1991 President's Budget Request		\$16,271

Activity Group: Maintenance and Repair of Real Property F4 (Continued)
 Claimant: Naval Air Systems Command

III. Performance Criteria

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Maintenance & Repair of Real Property (\$000)</u>	18,275	13,024	15,403	16,271
Backlog, Maintenance/Repair (\$000)	13,158	16,440	18,735	22,203
Total Buildings (KSF)	8,031	8,080	8,080	8,080
Security Systems (EA)	0	1	1	1

IV. Personnel Summary: Not Applicable

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

Activity Group: BASE OPERATIONS F3
Budget Activity: 7 - CENTRAL SUPPLY & MAINTENANCE
Claimant: NAVAL AIR SYSTEMS COMMAND

I. Description of Operations Financed.

Base Operations funds provide for other base services, utility operations, other engineering support, physical security, and morale, welfare and recreation support at the following Naval Air Systems Command (NAVAIR) field activities under each respective host-tenant agreement.

Naval Air Engineering Center (NAEC), Lakehurst, NJ
Naval Aviation Engineering Service Unit (NAESU), Philadelphia, PA
Naval Aviation Depot Operations Center (NADOC), Patuxent River, MD
Naval Aviation Depots (NADEPs)
Naval Air Technical Services Facility (NATSF), Philadelphia, PA
Naval Aviation Maintenance Office (NAMO), Patuxent River, MD
Naval Air Test Center (NATC), Patuxent River, MD
Naval Weapons Engineering Support Activity (NAWESA), Washington, DC
Pacific Missile Range Facility (PMRF), Barking Sands, HI
Pacific Missile Test Center (PMTIC), Point Mugu, CA

Base Communications program finances telephone and telecommunication for the Naval Air Systems Command Headquarters and equipment services at field activities.

7 0139

Activity Group: BASE OPERATIONS F3 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

		FY 1989						
		Amended Pres. Budget	Appro- piation	Current Estimate		FY 1990 Budget Request	FY 1991 Budget Request	
	FY 1988 Actual							
OTHER BASE SERVICES	23,752	18,730	25,438	25,438		19,871	20,907	
MORALE, WELFARE & RECREATION	3,587	1,997	3,045	3,045		3,473	3,337	
PHYSICAL SECURITY	53	91	91	91		137	119	
UTILITY OPERATIONS	6,988	4,075	7,003	7,003		7,413	8,232	
OTHER ENGINEERING SUPPORT	4,764	2,880	4,881	4,881		5,501	5,682	
BASE COMMUNICATIONS	5,154	2,543	3,078	3,078		3,723	3,709	
TOTAL, BASE OPERATIONS	44,298	30,316	43,536	43,536		40,118	41,986	

Activity Group: BASE OPERATIONS F3 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$43,536
2. Pricing Adjustments		
A. Industrial Fund Rates	(1,174)	1,407
B. Other Pricing Adjustments	(233)	
3. Functional Program Transfers		600
A. Transfers In	(600)	
1) Intra-Appropriation	600	
a) Transfer of funds from the Navy Telecommunications Command for the Defense Data Network (DDN)		
4. Program Increases		1,639
A. Other Program Growth in FY 1990	(1,639)	
1) Increase in utilities at PMTC and NATC due to increased energy consumption and disposable waste. Increased funding for common support for fire protection, security services, and morale, welfare and recreation at NATC, PMRF and PMTC.	1,097	
2) Increase in number of instruments, mainlines, and daily average message traffic.	542	
5. Program Decreases		-7,064
A. Other Program Decreases in FY 1990	(-7,064)	
1) Decrease reflects realignment of Industrial Preparedness type support costs to the Naval Industrial Fund to charge customers for this effort.	-7,064	
6. FY 1990 President's Budget Request		\$40,118
7. Pricing Adjustments		
A. Industrial Fund Rates	(1,222)	1,450
B. Other Pricing Adjustments	(228)	

Activity Group: BASE OPERATIONS F3 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

B. Reconciliation of Increases and Decreases (Continued).

8. Program Increases		996
A. Other Program Growth in FY 1991		
1) Full funding of Other Base Services at Naval Electronic Support Activity (NESA), a tenant at NATC.	(996)	
2) Increase in utilities at PMTC, NATC and PMRF due to increased energy consumption and disposable waste.	284	
3) Increase in number of mainlines and daily average message traffic for Base Communications.	563	
	149	
9. Program Decreases		-578
A. Other Program Decreases in FY 1991		
1) Physical Security will be buying less surveillance equipment.	(-578)	
2) Reduction in the number of instruments in service for Base Communications.	-22	
3) Reduced Engineering Services at PMTC.	-279	
4) Morale, Welfare and Recreation reduced at NATC, PMRF and PMTC.	-14	
	-263	
10. FY 1991 President's Budget Request		\$41,986

Activity Group: BASE OPERATIONS F3 (Continued)
 Claimant: NAVAL AIR SYSTEMS COMMAND

III. Performance Criteria

Base Operations (\$000)

Operations of Utilities (\$000)
 Total energy consumed (MIBU's)
 Total non-energy consumed
 (000 Gals)

Personnel Operations (\$000)
 Morale, Welfare and Rec (\$000)
 Population Served, Total
 (Military, E/S)
 (Civilian/Dep, E/S)

Base Operations - Mission
Other Base Services (\$000)

Ownership Operations (\$000)
Other Engineering (\$000)

Physical Security (\$000)
 (Guards, E/S)

Base Communications - (\$000)
Number of Instruments
Number of Mainlines
Daily Average Message Traffic

IV. Personnel Summary: Not Applicable

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	44,298	43,536	40,118	41,986
	6,988	7,003	7,413	8,232
	68,299	68,299	72,299	74,299
	63,311	63,311	63,311	63,311
	3,587	3,045	3,473	3,337
	3,587	3,045	3,473	3,337
	42,000	42,000	42,000	42,000
	17,000	17,000	17,000	17,000
	25,000	25,000	25,000	25,000
	23,752	25,438	19,871	20,907
	23,752	25,438	19,871	20,907
	4,764	4,881	5,501	5,682
	4,764	4,881	5,501	5,682
	53	91	137	119
	1	2	3	3
	5,154	3,078	3,723	3,709
	5,010	5,010	5,200	5,150
	2,540	2,540	2,740	2,800
	2,320	2,000	2,400	2,500

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

Activity Group: Ship Launched Weapons Rework and Maintenance
Budget Activity: Z - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

This activity group provides support for Navy weapons systems ashore and afloat. Various types of support include depot maintenance, tactical software maintenance, repair and refurbishment of surface-to-surface missiles and missile launchers, guns and small and large caliber conventional ammunition. The activity group also funds maintenance, repair, and calibration of mines and various types of nuclear weapons. Requirements for these programs may vary each year due to variables such as ship overhaul schedule, age of equipment, and newer, more complex equipment entering the Fleet.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1989			FY 1990		FY 1991	
	FY 1988 Actual	Amended Pres. Budget	Appropriation	Current Estimate	Budget Request	Budget Request	Budget Request
SURF WARFARE SYS REWORK & MNT	132,714	130,371	128,420	130,253	162,818	169,753	
AMMUNITION SYS REWORK & MNT	6,657	6,452	6,357	6,339	4,829	6,063	
SUB WARFARE SYS REWORK & MNT	1,262	726	715	200	302	321	
Total, SHIP LAUNCH WPNS	140,633	137,549	135,492	136,792	167,949	176,137	

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate	\$ 136,792
2. Pricing Adjustments	5,838
A. Stock Fund	(-108)
1) Non-Fuel	-108
B. Industrial Fund Rates	(4,252)
C. Other Pricing Adjustments	(1,694)
3. Program Increases	32,400
A. Other Program Growth in FY 1990	(32,400)
1) SURFACE WARFARE SYSTEMS REWORK AND MAINTENANCE - The major increase to this program is a Department of the Navy initiative to restore the Missile Systems Rework Program to an Asset Readiness position of 75%. The increased funding is within the capability of Navy Depot Level Maintenance Facilities (DLMFs) and Intermediate Level Maintenance Facilities (ILMFs). Specifically, funding provides rework and overhaul support for an additional 1,906 Standard Missile (SM-1 and SM-2) components in FY 1990 which will ensure meeting shipfill requirements in FY 1991 (18,699).	(32,308)

For Missile Weapons Systems Reworks and Overhauls, an additional \$5,504 is funded in FY 1990. Specifically, 2 additional MK 92 Antenna Fire Control Systems overhauls will be accomplished (2,097). For Long Range Missile Weapons Systems, 1 additional Fire Control System for the SPG 55B Turnaround Program and MK 152 Computer/Peripheral Equipment as well as increased support for the MK 10 Guided Missile Launching System (1,101) will be provided. Increase funds 4 additional overhaul and repair efforts for the NATO Seasparrow Surface Missile System (NSSMS) in support of the Launching System (2,040). Further, increase supports an additional 7 Launchers for the Vertical Launching System (VLS) (266).

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

For Major Gun Systems, an additional \$6,040 supports increased efforts in FY 1990. Specifically, 3 additional MK 86 overhauls and 5 additional overhauls for the Gun Weapons System Replacement Program (3,977) and 9 additional Close-In Weapons System (CIWS) overhauls will be accomplished (2,063).

Other increases support an additional 52 computer programs in support of Medium Range Missile Weapons System Computer Software Maintenance (1,180); additional Long Range Missile Weapons System program support for Tactical Computer Software Maintenance (575) and 1,100 additional Mine Component Reworks and Overhauls (310).
 2) SUBMARINE WARFARE SYSTEMS REWORK AND MAINTENANCE - 92
 Maintenance of additional Special Support Equipments is provided due to Submarine Vertical Launch Systems becoming operational and 3 additional submarines being supported.

4. Program Decreases

(-7,081)

A. Other Program Decreases in FY 1990

(-7,081)
 (-5,268)

- 1) SURFACE WARFARE SYSTEMS REWORK AND MAINTENANCE - Decrease reflects 4 fewer NATO Seasparrow Surface Missile System (NSSMS) Below Deck Systems overhauls in accordance with the current overhaul schedule (-873) and 1 less Target Acquisition System (TAS) overhaul (-584) and Decreased support for the AN/WLR-1 Anti-Ship Missile (ASM) systems in the Fleet (-1,498). For Medium Range Missile Weapons Systems, decrease reflects completion of the Medium Range Computer Program Facility Update in FY 1989 (-2,085). Further, 25 fewer Replacement Parts for Gun Weapons Systems will be supported (-228).
- 2) AMMUNITION SYSTEMS REWORK AND MAINTENANCE - Decrease reflects reduced support for 49,000 fewer units of ammunition reworked (-522); 428 fewer Major Maintenance Items and 1,540 fewer Other Maintenance Items and Inspections will be performed for Nuclear Weapons Support (-1,291).

-1,813

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

5. FY 1990 President's Budget Request \$ 167,949

6. Pricing Adjustments 5,072

A. Stock Fund (91)
 1) Non-Fuel 91
 B. Industrial Fund Rates (2,915)
 C. Other Pricing Adjustments (2,066)

7. Program Increases 12,327

A. Other Program Growth in FY 1991 (12,327)
 1) SURFACE WARFARE SYSTEMS REWORK AND MAINTENANCE - In- 11,219

crease reflects additional funding for Missile Weapons Rework and Overhauls. Specifically, 2 additional MK 5 Long Range Missile System Launcher overhauls will be accomplished in FY 1991 (2,095). For the NATO Seasparrow Surface Missile System (NSSMS), increase reflects 4 additional Target Acquisition System (TAS) overhauls (2,693) and increased support for certification of NSSMS and TAS depots required to ensure the adequacy of depot maintenance support resources, designated depot level repair capability/capacity resources and depot certification program for the evaluation of the depot's overhaul and repair procedures (1,347). Further, increase funds 7 additional repair and overhaul efforts in support of NSSMS Below Deck Systems (1,487).

For Major Gun Systems, 7 additional Close-In Weapons Systems (CIWS) overhauls are funded in FY 1991 to coincide with the increasing fleet population (2,788) and increased support for the Gun Weapons System Replacement Program for 1 additional overhaul (118).

Other increases support additional Medium Range Tactical Software Maintenance for 2 programs in FY 1991 (554) and in-

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

created support for the depot repair of the AN/SLQ-32 Anti-Ship Missile Systems (137).
 2) AMMUNITION SYSTEMS REWORK AND MAINTENANCE - Increase 1,098
 reflects support for 333 additional Major Maintenance Items and 1,320 Other Maintenance Items and Inspections for Nuclear Weapons Support.
 3) SUBMARINE WARFARE SYSTEMS REWORK AND MAINTENANCE - 10
 Increase supports Submarine Vertical Launch system rework.

8. Program Decreases

-9,211

A. Other Program Decreases in FY 1991 (-9,211)

-9,202

1) SURFACE WARFARE SYSTEMS REWORK AND MAINTENANCE - Major decreases to the program are reflected within Missile Components Worked and Reworks and Overhauls for Missile Weapons Systems of \$8,569. Specifically, decrease in Missile components maintains asset readiness at 75% (-893). For Long Range Missile Weapons Systems, there is reduced support for 1 less Fire Control System overhaul for the SPG 558 Turnaround Program and reduced support for the MK 152/Peripheral Equipment Refurbishment Program (-2,731). For the NATO Seasparrow Surface Missile System (NSSMS), decreased funding reflects 4 fewer Low Light Television overhauls (-266), 6 fewer Readiness Improvement overhauls (-798), 5 fewer NSSMS Launcher overhauls (-1,361), 8 fewer NSSMS Directors (-2,161), 8 fewer NSSMS Liquid Coolers (-359) in support of the NSSMS Launching System to conform to the latest overhaul schedule.

Other decreases reflect 10 fewer Gun Weapons Systems Replacement Parts supported (-158); decreased support for the AN/SLQ-17 Anti-Ship Missile System to coincide with the phase out of the systems (-274); reduced Mine Maintenance support (-59) and reduced Vertical Launching System support (-142).

2) AMMUNITION SYSTEMS REWORK AND MAINTENANCE - Decrease reflects reduced support for the rework of ammunition. -9

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

9. FY 1991 President's Budget Request

\$ 176,137

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

A. SURFACE WARFARE SYSTEMS REWORK AND MAINTENANCE

This program provides funding for depot level repair, overhaul, and maintenance of surface weapon systems. Specific systems supported include: standard missiles; long range and medium range missile weapons systems, which includes the MK-92 antennas; Vertical Launching System (VLS) canisters; NATO SEASPARROW Launchers; major gun weapons systems, including Close In Weapon Systems (CIWS); mines; and Anti-Ship Missile (Electronic Warfare) (ASM/EW) systems. The requirements for depot repair or overhaul are based on the systems' estimated time between overhauls and the ships' scheduled industrial availabilities. The repair of the missile weapons systems and the gun systems depend on the ships' overhaul schedules for access to the equipments. Most of the funding in this program is to support scheduled overhauls. Additional funding is provided to maintain the tactical computer programs for medium and long range missile weapons systems and to establish organic depot capability for CIWS and VLS. Depot maintenance for ASM/EW systems includes life cycle software maintenance, updating and maintaining software configuration baselines and reproduction and distribution of software revisions to the fleet. Also included are overhauls, system removals, system refurbishments and repairs.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>
Total Funding	132,714	130,253	162,818	169,753

NUMBER OF MAJOR SYSTEMS IN SERVICE:

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>
MISSILE WEAPONS SYSTEMS				
Medium Range Missile				
Weapon	447/109	369/126	377/126	377/126
Systems/Ships				
Long Range Missile				
Weapon	170/31	170/31	170/31	170/31
Systems/Ships				
Vertical Launch				
Systems/Ships	36/21	51/25	47/29	67/41

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
NATO SEASPARROW Surface Missile Systems/Ships	79/56	81/57	84/58	86/60
Target Acquisition Systems/Ships	36/36	44/44	44/46	52/52
Basic Point Defense Systems/Ships	31/22	28/19	24/15	22/13
Major Guns	711	762	739	724
Close-In Weapon Systems	409	453	504	527
ASM Systems	324	346	356	365

EFFORTS PERFORMED:

1. MISSILE COMPONENTS
 WORKED 30,291 2,771 26,395 1,939 46,232 3,845 46,727 3,859

2. REWORK AND OVERHAULS
 SCHEDULED

a. MISSILE WEAPONS
 SYSTEMS 40,793 34,456 39,715 40,691

Medium Range Missile
 Weapons Systems
 Launchers 1 0 0 0

7 0151

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Fire Control Systems	15	6	8	8
Long Range Missile Weapons Systems Launchers	15	7	8	10
Fire Control Systems	8	5	6	5
NATO SEASPARROW Surface Missile System	42	74	78	47
Target Acquisition Systems	6	3	2	6
NSSMS Below Deck Systems	2	4	0	7
Vertical Launching Systems (Launchers Supported)	36	40	47	67

b. GUN WEAPONS SYSTEMS 34,361 43,230 51,348 55,726

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
Gun Weapon System Replacement Program	21	19	24	25
MK 86 Overhauls	17	15	18	18
CIWS Overhauls	33	40	49	56
3. REPLACEMENT PARTS AND INTERIM SUPPORT	2,650	2,540	2,448	2,400
Medium Range	9	16	17	17
Long Range	0	0	0	0
Gun Weapons Sys	214	173	148	138
4. MINE MAINTENANCE/COMPONENTS IN (000)	2,742	2,422	2,856	2,882
	46	46	47	47
5. DEPOT ESTABLISHMENT/EQUIPMENT MAINTENANCE (WY S)	306	0	0	0
VLS	4	0	0	0
6. TACTICAL COMPUTER SOFTWARE MAINTENANCE	7,906	9,807	9,839	10,727
Medium Range Programs	149	166	218	220
Computer Program Facility Update	1	1	0	0
Long Range Programs	178	178	178	178

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
7. ASM SYSTEMS MAINTENANCE	13,665	11,403	10,380	10,600
AN/SLQ-32 (# of systems)	310	324	326	336
AN/SLQ-17 (# of systems)	14	14	10	5
AN/MLR-1 (# of systems)	12	18	20	23

B. AMMUNITION SYSTEMS REWORK AND MAINTENANCE

Provides funding for: major rework, maintenance and repair of ammunition, including gun ammunition, small arms ammunition, pyrotechnics, demolition explosives, and Marine Corps ammunition in the custody of the Navy. Funding also supports the rework, maintenance, and limited life component exchange of ASM, ground-delivered and W80/Tomahawk nuclear weapons and maintenance of activity capability and certification for these weapons.

Activity Group: Ship Launched Weapons Rework and Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Total Funding	\$ 6,657	\$ 6,339	\$ 4,829	\$ 6,063

Rework and Renovation Efforts

Ammunition reworked (in 000's)	685	673	624	662
Nuclear Weapons				
Major Maintenance Items	495	490	62	395
Other Maintenance Items and Inspections	1,775	1,760	220	1,540

Unit cost varies from year to year due to the mix of ammunition repaired.

C. SUBMARINE WARFARE SYSTEMS REWORK AND MAINTENANCE

The Submarine Vertical Launch System (VLS) program supports the installation of VLS on all SSN 688 Class Submarines. This program provides for the maintenance of VLS Special Support Equipment (SSE) and VLS Fire Control System (FCS) electronic equipment on SSN 688 Class Submarines.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Total Funding	\$ 1,262	\$ 200	\$ 302	\$ 321

# Tubes Supported	144	192	228	300

IV. Personnel Summary. N/A

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

Activity Group: ASW Maintenance
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

The purpose of the ASW Maintenance program is to provide for the rework and maintenance of surface ship and submarine ASW weapon systems. Systems include ASW targets, underwater fire control systems, torpedoes, torpedo tubes, the surface ship Anti-Submarine Launched Rockets (ASROC) and launchers, Submarine Launched Rocket (SUBROC), the Encapsulated Torpedo (CAPTOR) mines and sensors. Also included are rework for components of the above equipments together with certain related items such as ASROC motor rework and container refurbishment.

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		
SUBMARINE ASW MAINT	62,322	72,566	71,482	72,328	83,137	93,487
SURFACE ASW MAINTENANCE	48,181	48,761	48,013	49,925	64,595	69,061
AVIATION ASW MAINTENANCE	21,400	15,446	15,207	15,963	23,856	17,325
NSSP MAINTENANCE	8,364	11,675	11,503	11,461	13,425	16,367
Total, ASW MAINTENANCE	140,267	148,448	146,205	149,677	185,013	196,240

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$ 149,677
2. Pricing Adjustments		6,277
A. Industrial Fund Rates	(3,623)	
B. Other Pricing Adjustments	(2,654)	
3. Functional Program Transfers		-122
A. Transfers Out	(-122)	
1) Intra-Appropriation	-122	
a) TRANSFER OF SUPPLY REIMBURSABLE FUNDING		
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 reimbursably. 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 in efforts from that performed in previous years.		
4. Program Increases		38,040
A. Other Program Growth in FY 1990	(38,040)	
1) SUBMARINE ASW MAINTENANCE	9,322	
a) MK 48 - Warshot Verification - 165 additional Warshot Verifications will be done. These turnarounds are driven by maintenance due dates for the MK 48/ADCAP torpedoes (1,549). Depot Support - consists of Depot Level Repair of repairables not supported by the Spare Parts Control Center		

Activity Group: ASW Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

(SPCC). These repairables include all of the electronic Functional Item Repairables (FIR) components used in the MK 48/ADCAP Torpedo and all of the electronic and mechanical components used in the in-service support equipment. The support equipment verifies the proper operation of key torpedo systems during and after turnaround and warshot verification. In concert with the fleet acceptance of ADCAP Torpedoes, the MK 48 ADCAP fleet support contract provides for operating Ready Stock and Issue Sites (RS&I) and repairs of all returned and failed depot level repairables (DLRs) which consists of 350 line items of hardware. Examples of these components include fuel tanks, alternators, regulators, speed control valves, and steering assemblies. This contract also provides for data inputs on all hardware failures and configuration changes which are tested on the automatic test equipment (ATE) machines. This depot maintenance effort transfers from WPN interim contractor support to O&M,N in-service support beginning in FY 1990. Efficiencies and control are enhanced by tasking the Naval Undersea Systems Center (NUSC) with the management, technical direction, monitoring of the contract (6.695). Software Maintenance - consists of support used to perform maintenance of the software-controlled ADCAP Torpedo. Additionally, Life Cycle Support Facility maintenance includes operation and maintenance of all equipment used for software maintenance, configuration management, security, problem analysis/anomaly verification and change analysis including documentation, resolution of problems, and verification of solutions. In FY 1990, the 106 additional ADCAP Torpedoes entering the fleet will receive software debugging along with the new ADCAP automatic test equipment (1,078).
b) BQQ-5 - 2 additional overhauls are performed (not broken out in the performance criteria) as the Depot

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

Modernization Period (DMP) Program shortens overhauls from 18 to 9 months.	3,540
c) BSY-1 - Respond to program trouble reports on software malfunctions for 8 new BSY-1 Systems which represent about 600,000 new source lines of code to maintain.	
2) <u>SURFACE ASW MAINTENANCE</u>	6,737
a) MK 46 - 300 additional Rextorp Turnarounds will be accomplished. This will provide additional exercise firing opportunities to ASW personnel to become more proficient with the MK 46 (182). 206 more Mod 5 overhauls will be done. These Mod 5s will need to receive replacement of normal shelf life components, correction or repair of the torpedo shells due to the effects of corrosion and wear, and repair of other components that are beyond the capability of an Intermediate Maintenance Activity (IMA) (4,504). 100 more Mod 4 overhauls will be done. These overhauls involve correcting and repairing the effects of aging and wear on torpedo shells, components, and subassemblies. Also any known anomalies receive Engineering Change Proposals (ECP's) and Functional Item Repairables (FIR) Bulletins if they have not received them during previous maintenance overhauls (1,205). Depot Component Repair - increased support for repair, maintenance and turnaround of unservicable 4T Cog Components to sustain Fleet and proofing firings (846).	
b) MK 50 - Funds provide for initial outfitting of MK 50 Intermediate Maintenance Activities (IMA's) and Depot's.	205
c) CAPTOR - 110 additional overhauls will be accomplished	704
d) U/W FCS - 2 additional MK 38 refurbishments and incorporate 9 additional software Engineering Change Proposals. Also initiate DDG-2 class turnaround program.	1,908
e) ASROC - 6 additional Launcher overhauls and 111	4,354

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

additional ASROC components repairs will be done.	
f) Sensors Maintenance	
i) Software Maint. - Support for 18 new SQQ-89	917
Combat Systems will be provided.	
ii) Hardware Maint. - 160 more maintenance actions	875
will be done on the SQR-15.	
3) AVIATION ASW MAINTENANCE	6,030
a) Target - This program provides at sea Fleet ASW training support, which contributes to overall Fleet ASW units at BARSTUR/BSURE, Kauai, Hawaii; AUTEK, Andros Island, the Bahamas and at AFMTF, Roosevelt Roads, Puerto Rico, The Southern California Range (SOCAL), San Diego and Keyport. Each Intermediate Maintenance Activity IMA site provides intermediate maintenance for the target runs which includes run scheduling, launch/recovery, turnaround (pre- and post-) and reporting of results to participating fleet units. In FY 1990 880 additional target runs will be supported with intermediate maintenance. Also 784 additional depot repairs will be scheduled. Depot level repair is accomplished at NAVUSEAWARENGSTA, Keyport, Washington. Depot repairs involve overhauls and maintenance of end items/ sub-assemblies beyond the capability of the IMA's.	
b) Pinger - 422 additional maintenance actions at the IMA will be done. This intermediate maintenance involves preparation, checkout, installation, repair and maintenance. Also 216 additional depot maintenance actions will occur. These actions represent a higher level of repair that cannot be accomplished at the IMA level. This support directly affects fleet readiness by providing an essential element in the operation of the Navy's underwater tracking ranges.	
c) CV Module - This program provides overhaul of components and computer program maintenance for CV ASW Modules. These modules located on aircraft	802
	422

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

carriers provide preflight, in-flight, and postflight ASW support to S-3A and ASW helicopter air ASW weapon systems. The modules consist of digital computers, displays, mass memories, plotters, high speed printers, acoustic analysis equipments and interface devices.

The systems have reached the age that it is necessary to refurbish them in order to keep up with the updated airplanes and Sonobouys which feeds the Module with ASW information. In FY 1990, an increase in funds will provide for resolution of computer program trouble reports resulting from deployment of the new CV-ASW Model 4.2. It is anticipated that more than 2,000 new lines of code will be generated.

4) NSSP MAINTENANCE

Increase reflects additional computer and depot repair support for the AN/UYS-1 Advanced Signal Processor (ASP) and AN/UYS-2 Enhanced Modular Signal Processor (EMSP) for 200 additional units. Funding will provide for additional electronic module repairs, computer maintenance/upgrades and depot engineering data training for 251 platforms and systems.

1,497

5. Program Decreases

-8,859

A. Other Program Decreases in FY 1990

1) SUBMARINE ASW MAINTENANCE

(-8,859)

-3,254

a) MK 48 - Intermediate Maintenance Activity - Exercise Firings - 240 fewer Exercise Firings. Funding formally directed to Exercise Turnarounds decreases in order to support the Asset Readiness Objectives (ARO) with increased warshot verifications (-1,594).

4T Cog Repair - consists of maintenance for all 4T components in the torpedo to ensure the operability and reliability of the torpedo. A 4T is a category of components that periodically requires

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

repair or replacement. Examples of 4T Cogs are Fuel Tanks, Command Control Units, Transducer Nose, and exploders. Because 240 fewer exercise firings will be done in FY 1990, it is expected that fewer 4T Cog items will need maintenance (-538).

In-Service-Engineering Runs (ISE) - ISE runs evaluate torpedo performance upgrades to ensure proper operation of the torpedo. In FY 1990 12 fewer ISE runs will occur (-569).

Other reductions of effort in various MK 48/ADCAP depot maintenance functions also occurs (-553).

b) SUBROC - 1,026 fewer SUBROC components will be disposed. -2,434

2) SURFACE ASW MAINTENANCE

a) MK 46 - 90 fewer class B maintenance actions will be accomplished. These Class B maintenance turnarounds are performed every four years after a weapon is issued from the depot and involve identifying and replacing failed components; verifying proper operation of the torpedo electronics, and identifying corrosion and treating it with a corrosion inhibitor (-462). Also, 461 fewer Exercise Firings will take place (-1,674). Forty-three fewer Mod's 1-4 conversions will be done. The conversions are decreasing because the conversion program is planned to be completed by the end of FY 1991. These conversions have been updating the electronics of the torpedoes to improve reliability and also improving their acoustical capability (-768). All other reductions in depot maintenance efforts (-267).

-3,171

6. FY 1990 President's Budget Request \$ 185,013

7. Pricing Adjustments 5,655

A. Industrial Fund Rates (2,869)

Activity Group: ASW Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

B. Other Pricing Adjustments (2,786) 23,649

8. Program Increases

A. Other Program Growth in FY 1991

1) SUBMARINE ASW MAINTENANCE - (23,649) 6,671

a) MK 48/ADCAP - IMA - The IMA consists of MK 48 and ADCAP exercise turnarounds and warshot verifications. Exercise turnarounds are performed after each in-water run to minimize the possibility of seawater corrosion and to return the torpedo to an operational condition. Exercise turnarounds are required to meet fleet readiness objectives. The runs also provide Prospective Commanding Officer's (PCO's) with the experience necessary to operate the MK 48 torpedoes in simulated conditions. Warshot verifications consist of maintenance performed every 4 years following a Warshot Depot Maintenance (WDM) overhaul to verify proper operation and reliability of the MK 48 warshot. In FY 1991 206 additional Exercise Firings will be scheduled and 3 additional Warshot Verifications will be done (3,431).
4T Cog - Increase in 4T Cog Component work reflects 206 more Exercise Firings being done in FY 1991 (511).
Software Maintenance - 213 ADCAP Torpedoes entering the fleet will need software maintenance to resolve malfunctions in the new torpedoes and in the new test equipment (1,099).
IMA/DLR Waste Disposal - An increased disposal effort will be needed to remove hazardous waste generated by the new ADCAP Torpedoes entering the fleet (496).
Torpedo Depot - This part of the MK 48/ADCAP maintenance program consists of support required for the repair of torpedoes damaged beyond intermediate

vity Group: ASW Systems Maintenance (continued)
 mant: Naval Sea Systems Command

Reconciliation of Increases and Decreases (continued).

Maintenance Activity (IMA) capability; the repair of torpedo containers and the operation of the ADCAP depot after activation. In FY 1991 increased funds will go to help with depot operations for the additional 213 ADCAP Torpedoes entering the fleet (1,134).	1,605
b) BQQ-5 - 3,000 additional electronic circuit cards are being refurbished. This effort is part of the Depot Modernization Program (DMP) which shortens overhauls from 18 to 9 months. In order to speed up overhauls, repair parts must be available to repair/refurbish units as soon as they are returned from the shipyards.	
c) BSY-1 - Increased funding is required to respond to program trouble reports from the fleet on hardware and software malfunctions for three new BSY-1 systems.	1,526
2) <u>SURFACE ASW MAINTENANCE</u>	
a) MK 46 - 198 more class B maintenance actions (1,230), 500 more Rextorp turnarounds (315), and 170 more Mod 4 Overhauls will be accomplished (2,145).	3,690
b) MK 50 - 10 additional Intermediate Maintenance (IMA) turnarounds, 35 more exercise firings, and 120 more Component Repairs will be accomplished. An IMA turnaround is an inspection and adjustment of MK 50 torpedo component parts. An IMA turnaround will be performed on a regular cycle. However, in order to ensure IMA turnaround capability for those torpedoes that will need IMA turnarounds in the future, practice turnarounds will be performed in FY 1991. Exercise firings are directed fleet-performed practice firings of the MK 50 torpedo to ensure fleet readiness and operational capability. Resources are required for recovery, inspection, and reassembly of the MK 50 torpedo. Components on the MK 50 torpedo may be damaged during these exercise firings. Resources	4,175

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

are required to repair failed components. The number of components repaired is related to the number of exercise firings performed.

c) CAPTOR - 58 additional overhauls and additional Torpedo Tube Rework efforts will be accomplished.

d) MK 38 - 3 additional refurbishments will be done.

e) ASROC

i. Missile (O/H) - 143 additional component repairs will be done.

ii. VLA - 23 additional Intermediate Maintenance Activity (IMA) components will be repaired at the depot.

f) Sensors Maintenance

i. Software - Increase supports 10 additional SQQ-89 Combat Systems.

ii. SQR-15 Hardware - 103 additional maintenance actions will be performed.

3) NSSP Maintenance

Increase reflects additional computer and depot repair support for the AN/UYS-1 Advanced Signal Processor (ASP) and AN/UYS-2 Enhanced Modular Signal Processor (EMSP) for 200 additional units. The rising fleet population of the AN/UYS-1 and AN/UYS is reflected in increasing maintenance requirements.

9. Program Decreases

A. Other Program Decreases in FY 1991

1) SUBMARINE ASW MAINTENANCE

a) SUBROC - Decrease reflects end of SUBROC Maintenance Program.

2) SURFACE ASW MAINTENANCE

a) MK 46 - Decrease reflects 58 fewer Exercise Firings (-305), 360 fewer Mod 1-5 Conversions (-5,087), and 107 fewer Mod 1-4 Conversions (-1,852).

b) U/W FCS - Termination of the MK 53 refurbishment

892

324

320

1,090

282

545

2,529

-18,077

(-18,077)

-2,005

-7,244

-1,574

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

program (926). Decreased funding associated with one time start up effort for DDG-2 in FY 1990 (648).	
3) AVIATION ASW MAINTENANCE	
a) Target - Decrease reflects 405 fewer Target Runs and 1,007 fewer Depot Repairs.	-4,307
b) Pinger - Decrease reflects 1,250 fewer Intermediate Maintenance Activity (IMA) repairs, and 321 fewer Depot Repairs.	-2,324
c) CV Module - 4,000 fewer source lines of software code will be overhauled including approximately 2,900 lines of code generated by the fleet introduction of the S-3B.	-623

\$ 196,240

10. FY 1991 President's Budget Request

Activity Group: ASW Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria

1. SUBMARINE ASW MAINTENANCE

This program provides for the repair and overhaul of submarine ASW weapon systems and maintenance of software supporting the equipment. The MK 48/ADCAP program's performance criteria has been expanded to better reflect their efforts. The MK 48 torpedo and the new Advanced Capability (ADCAP) torpedo program is broken down into 14 categories plus a separate delivery schedule for the MK 48 and the ADCAP. The categories are defined as follows:

1a. Warshot Depot Maintenance (WDM) consists of a complete overhaul performed on each torpedo on an eight year cycle. This maintenance is required to ensure proper weapon operation throughout the life of the torpedo. During the WDM process torpedo ORDALTs are also installed.

1b. IMA Operations - consists of Exercise Turnarounds and Warshot Verifications. Exercise Turnarounds are performed after each In-Water Run. This maintenance is required to minimize the possibility of seawater corrosion and return the torpedo to an operational condition. The warshot verification consists of maintenance performed every 4 years following a WDM. This maintenance is required to verify proper operation and reliability of the warshot.

1c. 4I Cog Repair - consists of maintenance for all 4I components in the torpedo and is required to ensure the operability and reliability of the torpedo.

1d. Depot Support - consists of the fleet support contract. This contract is for the depot level repair of repairables not supported by the Navy Supply System. These items include all of the electronic FIR (Functional Item Replacement) components used in the MK 48 ADCAP Torpedo. Also included are all of the electronic and mechanical FIR components used in the In-Service Support Equipment. This equipment consists of test equipment used to verify the proper operation of key torpedo systems during and after the turnaround and warshot verification process.

1e. Software Maintenance - consists of support used to perform maintenance on torpedo software. It also includes life cycle support facility maintenance which includes operation and maintenance of all equipment used for software maintenance, configuration management, security, problem analysis/anomaly verification, change analysis including documentation, resolution of problems and verification of solutions. If ORDALI Installations - consists of support required to install torpedo ORDALIs. These installations are required for torpedo upgrades in areas of performance and safety.

Activity Group: ASW Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

- 1q. In-Service Engineering (ISE) Runs - In-Service Engineering (ISE) runs evaluate torpedo performance upgrades to ensure proper operation of the torpedo.
- 1h. IMA/DLR Waste Disposal - consists of support required to dispose of (Otto Fuel) hazardous waste generated during the maintenance process. This effort is related to the performance of turnarounds, Warshot Verifications, and WDMs.
- 1i. Repair Facility - consists of support required for the Depot Level Repair of the Automatic Test Equipment.
- 1j. Automatic Depot Repair - consists of support required to provide depot level support for maintenance and repair of the Automatic Test Equipment. This support is required to maintain the equipment that ensures proper torpedo operation.
- 1k. Torpedo Depot - consists of support required for the repair of torpedoes damaged beyond IMA capability, for the repair of torpedo containers, and for the operation of the ADCAP Depot after activation. 1l. Magazine Storage - consists of support required for the establishment of the baseline program management for torpedo storage and induction, preparation of procedures, modification and preparation of facilities required for torpedo induction, and establishment of an IMA Facility to prepare torpedoes for magazine induction. This preparation includes complete torpedo teardown, buildup, system test, final inspection, and cosmetic touch-up.
- 1m. Test Equipment Refurb. - consists of support required to refurbish off-line test equipment used in the maintenance of MK 48/ADCAP Torpedoes. This equipment includes MK 562 Test Sets, MK 525 Explorer Test Sets, MK 519 Control Cable Test Sets, MK 5 Hydraulic Fill Units, MK 576 Igniter Test Sets, MK 6 Fuel Tank Fill Units, MK 542 Afterbody Test Sets, MK 558 Fuel Pump Test Sets, MK 556 Cable Test Sets, and MK 554 Steering Assembly Test Sets.
- 1n. Other Depot Repair - consists of support required for the Ready-For-Issue-Evaluation (RFIE) of recently prepared and fleet returned warshot torpedoes at IMA's by the Weapon Quality Engineering Center (WQEC) surveillance team. Each IMA is visited twice a year and two torpedoes are inspected during each visit. This part of the MK 48 program also provides for launch vehicle capability support such as labor and equipment upgrades.
- Other programs include Underwater Fire Control Systems (U/W FCS); the SUBROC missile; Sensors such as the AN/BQQ-5 and Mobile Submarine Simulator (MOSS); and the AN/BSY-1 total combat control and acoustic

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

subsystem. These programs have also changed their performance criteria to better reflect their efforts. The MK 117/CCS MK I now is broken out by the number of hardware maintenance actions and the number of software maintenance source lines of code. Other FCS is the number of maintenance actions instead of the number of pieces of equipment worked on in the MK 101, 106, 112, 113, and Interface equipment of FCS MK 117/CCS MK I and BSY-I. The units in the SUBROC Program beginning in FY 1989 are disposal actions instead of maintenance since the SUBROC system is being retired. The MOSS performance criteria is expanded to include IMA turnarounds of Launchers and Vehicles.

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$		UNITS \$		UNITS \$		UNITS \$	
Total Funding	62,322		72,328		83,137		93,487	
1. Torp Depot Maintenance (DM)								
a. MK 48/ADCAP	(38,522)		(45,743)		(54,043)		(61,709)	
Warshot Depot Maintenance	6,797	180	10,224	240	10,542	240	10,825	240
b. Intermediate Maintenance								
Activity (IMA)								
Exercise Firings	13,639	1,449	15,051	1,428	14,060	1,188	17,531	1,394
Warshot Verification	4,887	543	3,871	416	5,575	581	5,774	584
c. 4T COG Repair	5,631		5,014		4,496		5,046	
d. Depot Support	619		672		7,635		7,368	
e. Software Maintenance	0		1,110		2,232		3,415	
f. ORDALT Installations	1,887		2,854		2,942		3,022	
g. In-Service-Engineering	231	5	1,696	35	1,149	23	1,190	23
h. IMA/DLR Waste Disposal	1,236		1,242		1,280		1,815	
i. Repair Facility	1,133		911		939		813	
j. Automatic Test Equip.	1,133		911		939		813	
k. Torpedo Depot	337		952		981		2,228	
l. Magazine Storage	422		436		449		925	
m. Test Equip. Refurb.	180		396		408		519	
n. Other Depot Repair	390		403		416		426	

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
o. # of additional Torpedoes				
i) MK 48	62	0	0	0
ii) ADCAP	18	0	106	319
2. U/W FCS	(3,777)	(3,804)	(4,007)	(4,646)
a. MK 117/CCS MK 1				
Hardware Maint.	594	634	650	658
Software Maint.	0	0	0	1,000
b. Other FCS				
(Maint. Actions)	110	186	258	156
3. SUBROC DM	(7,054)	(5,335)	(2,005)	0
Platforms	38	48	0	0
Missile/Test				
Components	3,044	1,579	553	0
Other	846	0	0	0
4. Sensor DM	(12,118)	(13,591)	(14,587)	(16,814)
a. AN/BQQ-5				
(# of electronic cards	15	15	16	19
in thousands)				
b. MOSS				
i. functional item repairs	35	35	31	31
ii. IMA Launchers/Vehicles	204	119	101	109
5. AN/BSY-1 (# of systems)	(851)	(3,855)	(8,495)	(10,318)
a. Wide Aperture Array	1	1	1	1

* New Start in FY 88

Activity Group: ASW Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

2. SURFACE ASW MAINTENANCE

This effort provides for the rework and maintenance of surface ship ASW underwater fire control systems, sensors, torpedoes, torpedo tubes, silencing devices CAPTOR, ASROC, and launchers. Also included are rework for components of the above equipments and maintenance of software supporting the equipment. The MK 46 performance criteria is being restructured to better reflect its maintenance program. The program is broken down into two main categories of maintenance: Intermediate Level and Depot Level. The MK 46 Intermediate Maintenance Activities (IMA) funding provides support for:

Class B Maintenance - which consists of periodic maintenance performed four years after a weapon is issued from the Depot. It is used to identify and replace failed components, to verify proper operation of the torpedo electronics, and to identify and inhibit corrosion. Maintenance consists of disassembly, cleaning, inspection, cosmetic repair, reassembly, and system test set of a torpedo. Failed component repair is accomplished by parts replacement. This maintenance is performed only at IMAs and is accomplished within six months of the class "B" maintenance due date.

Rextorp Firing - The MK 46 Recoverable Exercise Torpedo (Rextorp) is an inert non-running, recoverable MK 46 Mod 5 Torpedo Dummy. Its purpose is to provide additional exercise firing opportunities to increase the proficiency level of operational unit personnel in the handling, loading, preparation and delivery of warshot torpedoes. All of the fully assembled Rextorp physical and handling characteristics (size, weight, shape, center of gravity, moment of inertia, and fire control and launch platform compatibility) are designed to be identical to the Warshot MK 46 Mod 5 Torpedo. Rextorp turnaround cost is less than the cost of Exercise Torpedo Turnaround.

Pollution Abatement - involves the collection and the disposal of OTTO fuel wastes from the MK 46 activities. The contract has recently accelerated due in large measure to increasingly harsh restrictions placed on Otto fuel II which is classified as an environmental hazard requiring the disposal by contractors approved by Environmental Protection Agency.

Storage and Issue Support - This function is concerned with the certification of new or remodeled facilities and periodic recertification for Otto fuel safety of established operations. Other major components of this task consists of assistance with the problems relating to changes in layout, equipment relocations, air system improvements and similar facility enhancements. Experts in each of these fields are available for on-site or off-site work. In addition, engineering personnel assist in solving other facility problems, such as those involving workflow and safety. Solutions for these facility problems are then presented to

Activity Group: ASW Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

the fleet activities for corrective action.

Exercise Firings - torpedo exercise firings are conducted to test systems and train the crews of AntiSubmarine Warfare (ASW) units. Analyzing the results of these exercise firings provides assurance that the entire weapon system will perform as designed.

Class A Maintenance - This category ended at the end of FY 1988. It was done every 3 years and involved inspection for obvious problems such as corrosion, leaking, or structural damage.

The other major category of maintenance is Depot Level Maintenance. The funding for this program provides for Depot Level Maintenance on an eight year scheduled cycle, refurbishment and repair of the MK 46 Mods 1,2,4, & 5. Funding also provides for ORDALT installations such as the MK 46 Mod 5 passive mode, shallow water improvement, refurbishment, upgrade and repair of 4T Cog subassemblies, and conversion for the MK 46 Mod 1,2,4, & 5. The following are explanations of the specific categories within the MK 46 Depot Program.

MK 46 Mod 5 Overhaul - MK 46 Mod 5 torpedoes receive depot level overhaul maintenance every eight years. Overhaul maintenance allows for the replacement of normal shelf life components, correction or repair of the torpedo shells due to the effects of corrosion and wear, and repair of other components that are beyond the capability of an IMA to perform. Concurrently, to ensure correction of known anomalies, outstanding approved ORDALT's, Engineering Change Proposal's (ECP), and Functional Item Repairables (FIR) are installed. The number of overhauls each year will stabilize after FY 1990 when the final new MK 46 torpedoes enter the fleet. From FY 1991 on, 1/8 of the total MK 46 inventory will be overhauled each year. These torpedoes are the only conventional ASW weapons available for use by our Navy's ASW aircraft and surface combatants. MK

46 Mod 4 Overhaul - MK 46 Mod 4 Torpedoes require overhaul to correct or repair the effects of aging and wear on torpedo shells, components, and subassemblies. After FY 1990 when the full MK 46 inventory has been delivered to the fleet 1/8 of the total inventory will be overhauled each year. Also during the overhaul if there are any known anomalies that can be fixed with approved ECP's or FIR Bulletins which point out needed parts changes they are installed. The number of overhauls rise to 320 per year. These torpedoes are the payload in the MK 60 CAPTOR Mine.

Mod 1-5 Conversion - Over 1,200 MK 46 Mod 1 Torpedoes remain to be overhauled and converted to Mod 5 by installing ORDALT 10540. These units are needed to approach the MK 46 Mod 5 inventory objective and to provide the Fleet with a much more effective weapon. Coincident with the conversion process, overhaul must be performed to correct or repair the effects of corrosion and war on the torpedo shells and components.

Activity Group: ASW Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Additionally, the number of torpedoes to be converted in one year is determined by the number of kits delivered. These conversion Kits are purchased in the Weapons Procurement, Navy (WPN) appropriation. Mod

1-4 Conversion - MK 46 Mod 4 torpedoes are used as the payload for the MK 60 Mine (CAPTOR). To complete the CAPTOR buildup to near the inventory objective, 257 more MK 46 Mod 1 torpedoes will be converted. Coincident with the conversion process, overhaul must be performed to correct or repair the effects of corrosion and wear on torpedo shells and components.

Depot Component Repair - Funding is required in support of the repair, maintenance and turnaround of unserviceable 4T Cog Components to sustain Fleet and proofing firings in order to meet asset readiness objectives.

Fleet W/S Equipment Maintenance and Storage - Storage funding is used to salvage usable components. MK 540

ORDALI - Refurbishment of Torpedo Systems Test (TST) set MK 540 at Depot and IMA facilities is required to overcome parts obsolescence problems, to increase test set memory capacity to that required for complete torpedo systems checkout, provide for diskette copy protection, and maintain a standard current baseline among all TST's MK 540 users.

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

The Sensors Software Maintenance budget line is expanded to show hardware maintenance of the SQR-15 Towed Array Surveillance System. The performance criteria in Hardware Maintenance correspond to the "Maintenance Actions" performed on the SQR-15. Two new programs which begin maintenance work in FY 1991 are the MK 50 Torpedo and the Vertical Launch ASROC (VLA).

	FY 1988		FY 1989		FY 1990		FY 1991	
	UNITS \$		UNITS \$		UNITS \$		UNITS \$	
Total Funding	48,181		49,925		64,595		69,061	
1. Torpedos/Mines								
a. MK 46 IMA	31,661		29,162		34,528		36,862	
i. Class B Maintenance	(9,335)		(7,577)		(5,745)		(7,216)	
ii. Rextorp Firing	5,768	1,236	3,708	618	3,263	528	4,621	726
iii. Pollution Abatement	0	0	120	200	309	500	637	1,000
iv. Storage & Issue	610		738		757		782	
v. Exercise Firings	0		156		171		187	
vi. Class A Maintenance	1,548	265	2,855	713	1,245	252	989	194
b. MK 46 Depot	1,409	617	0	0	0	0	0	0
i. Mod 5 Overhaul	(16,335)		(16,693)		(22,701)		(18,282)	
ii. Mod 4 Overhaul	5,922	700	2,421	121	7,106	327	7,245	325
iii. Mod 1-5 Conversion	2,990	356	600	50	1,854	150	4,074	320
iv. Mod 1-4 Conversion	1,764	210	6,912	480	7,119	480	1,833	120
v. Depot Component Repair	2,763	329	2,520	150	1,852	107	0	0
vi. Fleet W/S Equipment	2,496	0	3,600		4,480		4,790	
vii. MK 540 ORDALT	0	786	400		200		250	
c. MK 50	400	0	240		90		90	
d. CAPTOR	(1,377)		(503)		(743)		(5,086)	
	(4,614)	662	(4,389)	669	(5,339)	779	(6,278)	837

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
2. U/W FCS								
a. MK 38	1,863	0	1,423	1	3,657	3	2,552	6
b. MK 53		3		2		2		0
c. MK 116 Maintenance		3		3		5		5
3. ASROC								
a. Launcher Overhaul (O/H)	6,649	6	9,080	10	14,392	16	16,181	16
b. Missile (O/H)		675		501		612		755
c. VLA								
i. IMA		0		0		0		23
ii. Component Repair		0		0		0		12
4. Sensors Maintenance								
a. Software	5,116	10	7,470	20	8,543	38	9,307	48
b. # of SQQ-89 Combat Systems in the fleet								
c. Hardware (SQR-15)	2,607	529	2,450	492	3,475	652	4,159	755
5. Surface Ship Silence (# of propellers Ovhl)	285	3	340	4	0	0	0	0

3. AVIATION ASW MAINTENANCE

The Aviation ASW Maintenance Program provides targets and pingers required for training exercises for all equipment including Torpedo MK 48, sonars, sonobuoys, and Magnetic Anomaly Detection (MAD) equipped aircraft. The program provides depot level repair for the overhaul and maintenance of target end items/subassemblies beyond the capability of the Intermediate Maintenance Activities (IMAs). The program also provides services for fleet torpedo firings required for ASW fleet exercises, including maintenance and turnaround of range pinger systems, and provides depot maintenance of the CV-ASW Module. In each program in Aviation ASW Maintenance the performance criteria have been expanded in this submission to better reflect

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

their efforts. The Target Program shows the number of depot repairs, the Pinger line instead of reporting the number of runs it supports now is broken out by the number of depot repairs and IMA repairs. Also the CV/ASW Module Program differs from past submissions in that there is a line for software maintenance as well as hardware maintenance now.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
Total Funding	21,400	15,963	23,856	17,325
1. Targets	14,684	12,020	18,581	14,703
a. (# of runs)	1,931	1,040	1,920	1,515
b. Depot Repairs	2,623	2,037	2,821	1,814
2. Pingers	3,684	2,545	3,418	1,326
a. IMA repairs	2,084	1,785	2,207	957
b. Depot repairs	268	300	516	195
3. CV/ASW Modules O/H	3,032	1,398	1,857	1,296
a. Systems Refurb.	2	1	1	1
b. Software (LOC in 000's)*	14	7	9	5

*LOC = Lines of Code

4. NAVY STANDARD SIGNAL PROCESSOR (NSSP) COMPUTER PROGRAM MAINTENANCE

This program provides computer program maintenance and support of all NSSP commodities including AN/UYS-1 Advanced Signal Processor (ASP), AN/UYS-2 Enhanced Module Signal Processor (EMSP), applicable programming methodologies, computer programming environments, associated documentation and other NSSP configuration items. Included is the establishment of an in-house Computer Program Support Activity. This program includes evaluation of Engineering Change Proposals, analysis of operational and maintenance data,

Activity Group: ASW Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

maintenance and upgrade of computer programs and documentation and associated services necessary to support NSSP commodities. The AN/UYS-1 products are being used in 16 platforms and weapons systems, ground applications and trainers. The significant improvement in performance of the AN/UYS-2 permits its use in a wider array of applications than the AN/UYS-1.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS \$	UNITS \$	UNITS \$
Total Funding	8,364	11,461	13,425	16,367
1. NSSP Support	8,364	11,461	13,425	16,367
Units	1,212	1,413	1,613	1,813
Modules (Thousands)	108	144	144	144

IV. Personnel Summary. N/A

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

Activity Group: Other Ship Systems Maintenance
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

Other Ship System Maintenance activity group funds the depot overhaul and maintenance of: shipboard electronic and HM&E equipment; calibration, salvage and underwater ship repair equipment; small arms; AEGIS weapons systems and software; and other shipboard computer programs. Requirements for these programs are not constant each year but vary according to factors such as ship overhaul schedules, age of equipment, and new, more complex equipment entering the Fleet.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988			FY 1989			FY 1990		FY 1991	
	FY 1988 Actual	Amended Pres. Budget	Appro- piation	Current Estimate	FY 1990 Budget Request	FY 1991 Budget Request				
OTHER SURF WAR SYS MAINT	26,881	31,780	31,342	29,240	32,413	33,619				
ELECTRONIC SYS MAINT	39,348	36,568	36,062	35,939	35,411	35,651				
UNDERSEA WAR SYS MAINT	18,830	14,793	14,575	14,522	21,407	22,922				
EMISSIONS CTRL EQUIP MNT	7,704	7,980	7,980	7,980	10,403	10,745				
DIVING & SALVAGE	11,524	10,345	10,191	10,302	11,655	11,972				
SURF SHIP SYS MAINT	27,007	21,987	21,664	20,185	24,875	25,193				
MAJOR SHIP\BOAT REPAIR PROG	3,090	2,513	2,480	2,214	1,752	1,800				
CG 47/DDG 51 WPN SYS MNT	39,237	43,968	43,968	56,062	75,996	85,231				
SHIP SYS SOFTWARE MNT	40,020	38,095	37,869	34,613	38,683	40,215				
Total, OTHER SHIP SYS MAINT	213,641	208,029	206,131	211,057	252,595	267,348				

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$ 211,057
2. Pricing Adjustments		9,268
A. Annualization of FY 1989 Direct Pay Raises	(66)	
1) Classified	66	
B. FY 1990 Direct Pay Raises	(127)	
1) Classified	127	
C. Stock Fund	(-8)	
D. Industrial Fund Rates	(5,326)	
E. Other Pricing Adjustments	(3,757)	
3. Functional Program Transfers		998
A. Transfers-In	(1,123)	
1) Intra-Appropriation		
a) UNDERSEA WARFARE SYSTEMS MAINTENANCE - Functional	1,123	
transfer from Sonar Overhauls (O&M,NR) to provide		
maintenance of active Fleet Mine Countermeasure (MCM)		
ships' combat system.		
B. Transfers Out	(-125)	
1) Intra-Appropriation		
a) TRANSFER OF SUPPLY REIMBURSABLE FUNDING - This	-125	
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 being financed		
reimbursably. 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. This adjustment reflects the		
transfer from reimbursable to direct mission funding for		
this effort. This adjustment does not represent any		
increase in efforts from that performed in previous years.		

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

8. Reconciliation of Increases and Decreases (continued)

4. Program Increases			
B. Other Program Growth in FY 1990	(	40,089)	40,089
1) OTHER SURFACE WARFARE SYSTEMS MAINTENANCE - The increase of 2 Medium Endurance Cutters (WMEC) being delivered and 3 High Endurance Fleet Renovation and Modernization (FRAM) (WMEC) Cutters being returned to the Coast Guard Fleet increases requirements for repair of Navy-owned weapons systems (1,741). Increased funding also provides for additional repair and rework of small arms weapons (302).		2,043	
2) ELECTRONIC SYSTEMS MAINTENANCE - Increase reflects an additional 3,200 standards calibrated (1,542) and 2 additional gas turbine ships calibrated (54) and support for NTDS suite restorations (60).		1,656	
3) UNDERSEA WARFARE SYSTEMS MAINTENANCE - Increase reflects the repair and restoration of 656 additional transducers and hydrophones, 265 additional sonar equipments and 10 additional periscopes.		5,256	
4) EMISSIONS CONTROL EQUIPMENT MAINTENANCE			
a) Realignment		1,309	
1) Realignment of the Nuclear Radiation Safety Monitoring Equipment effort (NRSME - Restoration into NRSME - Calibration) to consolidate similar tasking and repair efforts. This effort is realigned from the Electronic System Maintenance program.			
b) Increase reflects funding for depot level repair and maintenance of open sea pollution abatement equipment, which includes various quantities of skimmers, workboats, boom vans, boom mooring systems, oil storage bladders, rigging vans, shop vans, submersible pumps, fendering systems, fire fighting kits and auxiliary equipment.		1,560	
5) DIVING AND SALVAGE - Increase reflects additional		992	

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

repair and maintenance of Navy salvage equipment (26); additional maintenance requirements resulting from Other Procurement, Navy (OPN) Appropriation buy of propeller underwater maintenance equipment (71); and maintenance of 347 Explosive Ordnance Disposal (EOD) systems (895).	3,808
6) SURFACE SHIP SYSTEMS MAINTENANCE - Three additional Hull equipment repairs, 47 additional Propulsion equipment repairs, 4 additional Auxiliary equipment repairs, and additional Electrical equipment repairs will be accomplished.	62
7) MAJOR SHIP/BOAT REPAIR PROGRAM - Increased funding is associated with an increase in the number of boats issued.	19,151
8) CG 47/DDG 51 WPN SYSTEMS MAINTENANCE - Depot repairs for electrical components and high power tubes increases due to the transition from Baseline 1 and 2 to Baseline 3 and three additional AEGIS ships entering the Fleet (7,086), Computer Program (C/P) Deliveries and C/P Backfit Mods increase due to three additional ships undergoing a selected restricted availability (4,938), C/P Technical Assists increases due to an increase in the number of ships requiring technical assists (585), and C/P Problem Resolutions increases due to the transition to Baseline 3 ships (6,542).	4,252
9) SHIP SYSTEMS SOFTWARE MAINTENANCE - Increase reflects average grade salary adjustment (10). Increase in Fleet Combat Direction Systems Support Activities (FCDSSA) for Joint Tactical Information Distribution System (JTIDS) (455). Increase of 26 additional workyears of support for the Fleet introduction and maintenance of the ADA computer language and 2 additional workyears for Support Software Maintenance (2,173); an additional 5 workyears of depot support of the AN/UUK-43 Computer (403); and an additional 17 workyears of depot level support for the AN/UUK-44 tactical computer (1,211).	

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

5. Program Decreases		-8,817
A. Other Program Decreases in FY 1990	(-8,817)	
1) OTHER SURFACE WARFARE SYSTEMS MAINTENANCE - Reduced funding support for 22 fewer pieces of ancillary support equipment.	-429	
2) ELECTRONIC SYSTEMS MAINTENANCE		
a) Realignment	-1,309	
i) Realignment of the Nuclear Radiation Safety Monitoring Equipment (NRSME) Restoration into NRSME Calibration to consolidate similar tasking and repair efforts. This program is realigned into the Emissions Control Equipment Maintenance program.		
b) Decrease reflects 2,300 fewer fleet calibrations (-556) and over 5,000 fewer equipment restorals associated with the RADIAC program (-918). Also, 25 fewer navigation components will be repaired (-1,030).	-2,504	
3) UNDERSEA WARFARE SYSTEMS MAINTENANCE - Decrease reflects discontinuation of scanning switches repair.	-300	
4) EMISSIONS CONTROL EQUIPMENT MAINTENANCE - Decrease reflects 3,400 fewer semi-annual calibrations of RADIAC equipment.	-943	
5) MAJOR SHIP/BOAT REPAIR PROGRAM - Decrease reflects 29 fewer seaborne targets supported (-588) and 2 fewer boats rehabilitated (-19).	-607	
6) CG 47/DDG 51 WPN SYSTEMS MAINTENANCE - The resources required for the repair of electronic components decreases due to the transition of Baseline 1 and 2 electronics support to the Navy Spare Parts Control Center (SPCC) in FY 1990.	-1,492	
7) SHIP SYSTEMS SOFTWARE MAINTENANCE - Reduced funding reflects decreased support for the LAMPS MKIII systems in the Fleet (-678); decrease in FCDSSA of 13 direct workyears for Fleet Combat Directional Support Systems	-1,233	

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

(-480); and decrease of one workyear for tactical command and control (-37). Also decreased support is reflected for FCDSSA facility required maintenance and general costs (-38).

6. FY 1990 President's Budget Request \$ 252,595

7. Pricing Adjustments 7,700

A. Annualization of FY 1990 Direct Pay Raises (50)
 1) Classified 50
 B. FY 1991 Direct Pay Raises (192)
 1) Classified 192
 C. Stock Fund (11)
 D. Industrial Fund Rates (3,544)
 E. Other Pricing Adjustments (3,903)

8. Program Increases 9,852

A. Other Program Growth in FY 1991 (9,852)
 1) OTHER SURFACE SYSTEMS MAINTENANCE - Increase reflects funding of 5 additional pieces of Radar Electronics equipment for repair and rework (666). Also, an increase in overhaul of gun systems on Coast Guard Ships is reflected (66).

2) ELECTRONIC SYSTEMS MAINTENANCE - Increase in Test Equipment Maintenance Support. 20
 3) UNDERSEA WARFARE SYSTEMS MAINTENANCE - Increase reflects the repair and restoration of 418 additional transducers and hydrophones, 22 additional sonar equipments and support for 1 additional Ocean-going Minesweeper (MSO) and 1 additional Mine Countermeasure (MCM) ship each containing sonar equipments. 1,192
 4) EMISSIONS CONTROL EQUIPMENT MAINTENANCE - Increase reflects an additional 50 calibrations to Radiation, 15

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

8. Reconciliation of Increases and Decreases (continued)

Detection, Indication and Computation (RADIAC) equipment.	10
5) DIVING AND SALVAGE - Increase reflects additional support to Emergency Ship Salvage Material (ESSM) bases (8) and Underwater Ship Husbandry (2).	
6) CG 47/DDG 51 WPN SYSTEMS MAINTENANCE - Increase for microwave tubes repaired is due to an additional four AEGIS ships at sea (488); electronic components increases due to the additional four ships at sea and the transition to Baselines 3 and 4 in FY 1991 (956); Computer Program (C/P) Problem Resolutions increases chiefly due to the increase in Baseline 3 ships leaving procurement appropriation responsibility (4,335); and C/P Backfit Mods and Program Deliveries increase due to an increase in the number of ships at sea receiving mods outside scheduled selected restricted availabilities (1,276).	7,055
7) SHIP SYSTEMS SOFTWARE MAINTENANCE - FCDSSA increases for one additional day in the pay year (35). Increase for Tactical Embedded Computer is for an additional 8 workyears of depot maintenance for the AN/UUK-43 and an additional 7 workyears for the AN/UUK-44 Tactical Embedded Computer (793) driven by increases in Fleet population of hardware and software.	828

-2,799

9. Program Decreases

(-2,799)
 -200

- A. Other Program Decreases in FY 1991
- 1) CONTRACTOR SUPPORT CONVERSION - Decrease reflects the FY 1991 effect of the transfer of resources to other 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

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

8. Reconciliation of Increases and Decreases (continued)

preparation of specifications or processing of procurement documentation.	-574
2) OTHER SURFACE WARFARE SYSTEMS MAINTENANCE - Decrease reflects reduced funding for 8 fewer Radar Antenna Groups, 7 fewer pieces of Ancillary Support equipment (-566) and reduced support for the Small Arms Repair program (-8).	-880
3) ELECTRONIC SYSTEMS MAINTENANCE - Decrease results from the restoration of 32 fewer navigation components.	-377
4) UNDERSEA WARFARE SYSTEMS MAINTENANCE - Decrease reflects 4 fewer periscopes being repaired.	-26
5) EMISSIONS CONTROL EQUIPMENT MAINTENANCE - Decrease reflects reduced maintenance of open sea pollution abatement equipment.	-47
6) DIVING AND SALVAGE - Decrease reflects 23 fewer Explosive Ordnance Disposal (EOD) systems that will be repaired or overhauled.	-252
7) SURFACE SHIP SYSTEMS MAINTENANCE - Decrease in the refurbishment of Propulsion and Auxiliary equipment.	-14
8) MAJOR SHIP/BOAT REPAIR PROGRAM - Decrease reflects reduced scope of seaborne target repair.	-429
9) SHIP SYSTEMS SOFTWARE MAINTENANCE - Decreased support for Sonar System Software Maintenance (-28). FCDSSA decreases for Joint Tactical Information Distribution System (JTIDS) (-33); one less direct workyear of support of the Fleet Combat Directional Support System (-40); average grade salary adjustment (-6) and an overall reduction in efforts for Surface, Air, Support Software, Communication and Tactical Intelligence Systems as well as facilities and general costs (-322).	

10. FY 1991 President's Budget Request

\$ 267,348

7 0185

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

111. Performance Criteria.

A. SURFACE WARFARE SYSTEMS

Provides depot maintenance for warfare systems on surface ships. Includes major maintenance and repair of search radar components in the Fleet and the repair and overhaul of Navy-owned weapons systems on Coast Guard ships. Requirements are based on replacement commitments to specific ships during industrial availabilities and/or time usage factors. Restored search radar components provide equipment for approximately twenty-five percent of the cost of new procurement. Search radar restoration costs vary from \$20 thousand to \$2 million depending on the type of equipment being restored. Also included in this funding is: maintenance of the Navy's small arms (.50 caliber or less) weapons.

	FY 1988		FY 1989		FY 1990		FY 1991	
	UNITS		UNITS		UNITS		UNITS	
Total Funding	\$ 26,881		\$ 29,240		\$ 32,413		\$ 33,619	

1. SEARCH RADAR MAINT

Depot Supported Fleet Population

Antenna Groups	668	689	697	675
Electronics	629	606	580	545
Ancillary Equipments	1,915	1,883	1,915	1,917
U.S. Coast Guard (radars)	102	100	98	98

Radars Repaired

Antenna Groups	16,002	15,699	16,378	17,080
Electronics	170	159	165	157
Ancillary Equipments	12	9	13	18
	106	97	75	68

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
2. COAST GUARD MTCE (including Coast Guard Radars) Equipped Cutters	9,529		12,130		14,250		14,708	
High Endurance (WHEC)		7		7		10		12
Medium Endurance (WMEC)		11		11		13		13
3. SMALL ARMS REPAIR Approximate No. of Wpns Repaired	1,350		1,411		1,785		1,831	
		4,369		4,409		5,820		5,962

B. ELECTRONIC SYSTEMS MAINTENANCE

Provides depot level support for electronics systems under the cognizance of the Naval Sea Systems Command, which includes refurbishment and restoration of Navy Tactical Data Systems (NTDS) on all active ships, restoration of inertial navigation and stabilized gyrocompass systems on surface combatants and depth detectors on SSNs and SSBNs. Requirements are driven by ship overhaul schedules and repair requirements based on operational schedules. In addition, this program provides for the calibration and repair incidental to calibration of all fleet electronic and electrical test, measuring and diagnostic equipment (TMDE) (including gas turbine ship support) which is beyond the capability or capacity of the fleet activities. This program also supports the restoration of non-ready for issue Radiation Detection, Indication and Computation (RADIAC) equipment to a safety level status.

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
Total Funding	39,348	35,939	35,411	35,651
2F COG ELECTRONICS	15,908	18,163	18,022	17,707
NUMBER OF IN-SERVICE SYSTEMS:				
NTDS Suites	154	155	156	156
Navigation Components	1,033	1,125	1,216	1,342
EFFORTS PERFORMED:				
Overhauls scheduled *				
NTDS Suites	10	10	8	8
Navigation Components	257	308	283	251
Test Equip. Maint.				
Standards Calibrations	21,077	15,638	17,389	17,944
(000's)	17	14	17	17
# of Gas Turbine Ships				
Calibrated	90	86	88	88
Fleet Calibrations (000's)	19	6	4	4
RADJAC RESTORATION				
# of equipment repaired/	2,363	2,138	0	0
**maintained (000's)	14	14	0	0

* Units reflect representation of current overhaul schedule. Units costs may vary depending on the extent of repair required for individual suites and components.

**Program decreases in FY 1990 due to budget realignment.

1. UNCLASSIFIED WEAPONS SYSTEMS

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

2F Cog Electronics USW

The program supports repair/restoration of 2F Cog Undersea Warfare Equipment such as sonar systems towed arrays, depth sounders, acoustic countermeasures, periscopes, and undersea communication systems installed or to be installed in attack submarines, ballistic missile submarines, major surface combatants, and support ships. Restoration repair is performed at Naval shipyard transducer repair facilities, other NAVSEA field activities, and by various contractors. Program requirements are based on quantities of installed equipment, the age of equipment, the cycle time required to repair items, the position of the installed equipment on the ship, issue rates of equipment to the fleet and emergent fleet problems. Units represent the total for submarines, surface combatants and support ships.

Transducers, hydrophones, scanning switches and domes are major components of a sonar system.

- a. Transducers receive and send signals and are used on active systems.
- b. Hydrophones, used on passive systems, only receive signals.
- c. Scanning switches are electro-mechanical switches made primarily of silver, which are necessary for a sonar system to process audio and visual signals.
- d. Domes protect the electronics of sonar systems from physical damage.
- e. "Sonar equipment" designates various other components of sonar systems that are refurbished with program funds.

Beginning in FY 90, funds transfer from naval reserves for the overhaul/maintenance of sonar equipments aboard Mine Countermeasure (MCM) Ships and Ocean-going Minesweepers (MSO). (Units represent the number of ships with sonar systems to be overhauled/maintained.)

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Total Funding	\$ 18,830	\$ 14,522	\$ 21,407	\$ 22,922
	=====	=====	=====	=====
	4,000	3,294	3,950	4,368
Transducers & Hydrophones				
Sonar Equipment	329	272	279	281
(In House)	128	155	413	433
(Commercial)	28	15	25	21
Periscopes	40	28	0	0
Scanning Switches	8	10	10	10
Domes				
MCM			3	4
MSO			0	1

D. EMISSIONS CONTROL EQUIPMENT MAINTENANCE

This program provides depot level maintenance for all Navy open-sea pollution abatement equipment located at five Emergency Ship Salvage Material (ESSM) Bases. Additionally, the program provides calibration and repair of Radiation, Detection, Indication and Computation (RADIALC) equipment for all ships and shore activities.

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Total Funding	\$ 7,704	\$ 7,980	\$ 10,403	\$ 10,745
ESSM Bases	640	0	1,560	1,581
CONUS				
fully operational	400	1.0	0	800
partially operational	240		0	0
Overseas				
fully operational	0	0	400	1
partially operational	0		360	2
RADIAC Repair				
# equipments calibrated (000's) *	7,064	7,980	7,520	7,789
RADIAC Restoration				
#equipments repaired/ maintained (000's) **			1,323	1,375
			6	6

* Increase in unit cost is due to adjusting the repair time (incidental to calibration) from 2 hours to 6 hours per calibration unit in order to keep more assets operational.

** Program increases in FY 1990 due to budget realignment.

E. DIVING AND SALVAGE SHIP MAINTENANCE

The Salvage Equipment Depot Maintenance (DM) portion of this program repairs, overhauls, and maintains all Navy salvage equipment aboard Navy salvage ships, assigned to Navy Mobile Diving and Salvage Units, and stored in the Emergency Ship Salvage Material (ESSM) bases, located worldwide. Program also funds the repair, maintenance, and overhaul of the Navy's three unmanned submersible vehicles (used for ship/aircraft salvage, special search, and pollution abatement missions), and maintenance of the Navy's two heavy lift craft (YHLCS) in an inactive status.

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

The Explosive Ordnance Disposal (EOD) Depot Maintenance portion provides the forces of all military services with equipment maintenance required to accomplish their EOD mission. This effort provides depot maintenance support for EOD underwater and marine mammal systems.

The Underwater Ship Husbandry portion of the program provides funds to modify existing tools for underwater usage, and to develop and document techniques and procedures for the underwater accomplishment of routine hull maintenance. Program emphasis is on the development of underwater techniques that do not require drydock time and to avoid the associated costs. Actual work is performed on an emergent requirements basis as procedures, techniques and tools are perfected and placed in service. Funds are also used for the refurbishment of existing systems in the Underwater Ship Husbandry Equipment Pool which is located at the Cheatham Annex ESSM Base.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Total Funding	\$ 11,524	\$ 10,302	\$ 11,655	\$ 11,972
Salvage DM	10,015	8,693	9,013	9,239
ESSM Bases				
Fully Operational	7,875	5 6,300	4 7,875	5 7,875
Partially Operational	1,140	1 1,393	1 138	1 414
Ships, Crafts, Unmanned Submersibles	1,000	1,000	1,000	1,000
# Vehicle repairs routine repairs				
>\$500K	2	2	2	2
<\$500K	0	0	0	0
% Operational availability of unmanned submersibles				
DEEP DRONE	100	100	100	25
ORION	75	100	100	100
EOD System Maintenance	0	107	1,006	989
# Systems Maintained		42	389	366

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
\$	\$	\$	\$	\$
Undrwrtr Shp Husbandry	1,509	1,502	1,636	1,694
Number of Equipment mods, techniques/procedures developed	1,204	1,204	1,204	1,204
>\$300K	4	4	4	4
<\$300K	0	0	0	0
Equipment Sets maintained/repaired	305	298	432	490
>\$150K	2	0	0	3
<\$150K	0	2	3	0

F. SURFACE SHIP SUPPORT

Program provides for refurbishment of a wide variety of ship equipments such as gas turbine engines, propellers, shafts, SONAR domes, main feed pumps, and generators for the operating fleet and for ship overhauls. The cost and time to refurbish is approximately one third that to procure new equipment. Equipment stocks are determined by fleet maintenance history, casualty report (CASREPT) demands and emergent overhaul requirements. Costs for equipment repaired are based on size, type, complexity, and condition before repair.

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding	27,007		20,185		24,875		25,193	
Hull Equipment	3,378	32	2,850	28	2,900	31	3,000	30
Propulsion Equipment	19,635	178	14,585	130	18,308	177	18,488	172
Auxiliary Equipment	2,940	33	2,100	20	2,717	24	2,755	23
Electrical Equipment	1,054	84	650	63	950	53	950	53

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

G. MAJOR SHIP/BOAT REPAIR PROGRAM

This program consists of the Boat Rehabilitation program, and the LCM/LCU/LCAC Rehabilitation and Modification program. The Boat Rehabilitation effort provides boats and landing craft, either new or repaired, to replace those that are no longer economically repairable and to fill new allowances. Approximately 4,300 boats are in service ranging from 14 feet to 165 feet. Unit cost of issues and rehabs varies according to size of boat and extent of repair. In addition, this program includes the Seaborne Target effort. This effort includes remotely-controlled powered boats, towed targets, target hulks and free-floating targets. This effort provides targets for fleet readiness training exercises and weapon systems development test and evaluation. The LCM/LCU Rehabilitation and Modernization is the Service Life Extension Program (SLEP) for LCM/LCU combatant landing craft. The LCAC Life Support program plans, develops, and implements LCAC configuration changes in response to safety requirements and fleet recommendations and updates craft capabilities. LCAC Life Cycle Support is realigned to CSS/ASC Boat Technical Support in FY 1988 to reflect the fact that it is not a depot maintenance program.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Total Funding	\$ 3,090	\$ 2,214	\$ 1,752	\$ 1,800
Boat Rehabilitation	754	741	830	860
Number of boats rehabilitated/issued	8/70	7/62	5/72	6/78
LCM/LCU/TARGETS	2,336	1,473	922	940
Number of Targets rehabilitated	27	54	25	25
Number of Craft rehabilitated	1	0	0	0

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

H. CG-47/DDG-51 WEAPONS SYSTEM MAINTENANCE

This account provides AEGIS Combat Systems depot maintenance in the following areas:

AEGIS Weapon System Maintenance. This account funds the depot repair of failed AEGIS combat system electronic components and high power microwave tubes. Repair of electronic components such as power supplies, printed circuit boards and electronic chassis is accomplished at the RCA operated AEGIS Depot Operations (ADO) in Moorestown, N.J.. Repair of power tubes including Cross Field Amplifiers, Switch Tubes, 10KW Travelling Wave Tubes and Continuous Wave Illuminator Tubes is conducted at the Naval Weapons Support Center (NWSC) in Crane, Ind.. Reclamation of failed but repairable tubes and electronic components is cost effective in that unit repair costs average less than 50% of new procurement costs and the repair turn-around time is less than 60% of the procurement lead time required for new items. The increase in the FY 1990 and FY 1991 requests reflects the requirement for greater capacity to handle the rapidly increasing AEGIS fleet.

AEGIS Combat System Computer Program Maintenance is conducted at the AEGIS Computer Center (ACC) in Dahlgren, Va.. Computer program maintenance provides updates of shipboard computer programs and tactical team training exercises required to maintain the combat readiness of AEGIS ships. This includes deliveries of program updates to the fleet, as well as engineering support sites. Updates will be required to correct errors, increase system performance, accommodate new equipment, adhere to changes in military doctrine, and to accommodate changes in interoperability requirements. Although computer programs do not "break", this effort is the computer program equivalent to repair for tubes or electronic components with new versions periodically replacing older versions. AEGIS combat system computer program maintenance is directly linked to operational requirements. It is driven by computer program problem reports and the need for product line improvements. It is also tied to the understanding that the performance of this highly automated combat system hinges on operational software readiness. The increase in the FY 1990 and FY 1991 request reflects the rapidly growing AEGIS fleet and the increasing complexity of AEGIS combat system baselines. The introduction of cruiser and destroyer baseline 4 computer programs to the fleet during FY 1991 will require the capability to maintain combat system computer programs which are three times as complex as those currently maintained for Baseline 1 cruisers.

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	39,237	56,062	75,996	85,231
	=====	=====	=====	=====
DEPOT REPAIRS:				
1. Electrical Components Repaired	24,621	33,662	40,011	42,330
	-----	-----	-----	-----
2. Tubes Repaired	14,891	19,764	18,272	19,714
	-----	-----	-----	-----
COMPUTER PROGRAM EFFORTS:				
3. C/P Deliveries	9,730	13,898	21,739	22,616
	-----	-----	-----	-----
4. C/P Tech-Assists	14,616	22,400	35,985	42,901
	-----	-----	-----	-----
5. C/P Maint Problem Resolutions	1,944	3,597	5,506	6,091
	-----	-----	-----	-----
6. C/P Backfit Mods	648	1,799	2,458	2,477
	-----	-----	-----	-----
	8,624	10,055	17,501	22,673
	-----	-----	-----	-----
	3,400	6,949	10,520	11,660
	-----	-----	-----	-----

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

ADDENDUM: Additional Explanation

1. COMPUTER PROGRAM BACKFIT MODS

Computer Program Backfit Mods provides for the timely implementation of modifications to shipboard combat system tactical programs and to tactical team exercise programs. The modifications are driven by equipment upgrades and the results of Fleet exercises, operations and deployments. These modifications are required to keep AEGIS ships fully combat ready and ensure threat reaction times are kept at a minimum. In the past, the non-recurring costs which were identified to ships within the SCN window were funded with SCN. Only implementation of Backfit Mods into non-SCN ships was funded with O&M,N. In FY 1990 all Baseline 1 ships will be out of the SCN window, and only one Baseline 2 ship will be in SCN funding for the first 5 months of FY 1990. SCN support of Computer Program Backfit Mods has been \$2.4 million in FY 1987 and \$2.6 million in FY 1988. Full support of Computer Program Backfit Mods must now be borne with O&M,N. Transition of O&M,N/SCN funding to O&M,N funding alone is as follows:

FISCAL YEAR	87	88	89	90	91
PLANNED MODS	5	9	13	16	19.4
O&M,N FUNDED MODS	2	5.8	13	16	19.4
SCN FUNDED MODS	3	3.2	0	0	0
O&M,N FUNDING (\$M)	1.4	3.1	8.5	10.7	13.4
SCN FUNDING (\$M)	2.4	2.6	0	0	0
TOTAL REQUIREMENT (\$M)	3.8	5.7	8.5	10.7	13.4

The funding requirement necessary to provide Computer Program Backfit Mods has been determined based on the following historical performance criteria:

- 1) 1 C/P Backfit Mod is performed during every scheduled availability.
- 2) 1 C/P Backfit Mod is performed for 90% of the ships at sea not receiving a mod in the same year during a scheduled availability.

This is approximated by the following formula:

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

$$\text{C/P MODS} = [(1 \text{ Mod}) \times (\# \text{ of Availabilities}) + (1 \text{ Mod}) \times (.9 \# \text{ of Ships at Sea}) \times (\text{Cost of a Backfit Mod})]$$

Based on prior experience and reported costs from the AEGIS Computer Center, it costs approximately \$633 thousand (K) in FY 1988 dollars per Computer Program Backfit Mod no matter whether the mod is accomplished during or outside a scheduled availability.

The following number of SRAs are scheduled at which time each ship will receive a Backfit Mod:

<u>FISCAL YEAR</u>	<u>89</u>	<u>90</u>	<u>91</u>
SRAs	4	7	5

The following numbers represent the 90% figure which each year will receive a C/P Backfit mod not receiving one during an SRA in the same year:

<u>FISCAL YEAR</u>	<u>89</u>	<u>90</u>	<u>91</u>
90% OF SHIPS AT SEA RECEIVING MOD OUTSIDE SCHEDULED SRA	9	9	14.4

Based on the above detailed formulas the following requirement to perform Computer Program Backfit Mods has been determined:

$$\text{FY 1989 C/P MODS} = [(\$652\text{K} \times 4) + (\$652\text{K} \times 9)] = \$8.5\text{M}$$

$$\text{FY 1990 C/P MODS} = [(\$672\text{K} \times 7) + (\$672\text{K} \times 9)] = \$10.7\text{M}$$

$$\text{FY 1991 C/P MODS} = [(\$692\text{K} \times 5) + (\$692\text{K} \times 14.4)] = \$13.4\text{M}$$

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

2. Computer Program Problem Resolution(CPPR)

AEGIS Computer Program Problem Resolutions provides software patches to correct deficiencies in existing Combat System computer programs. CPPRs are the equivalent of replacing broken electronic components in weapon system equipment.

At a minimum a CPPR resolution is required in the following cases:

- Safety related Issues.
- Primary Mission area fault without a workaround (develop fix).
- Primary Mission area fault with a workaround (validate workaround and insure no other impact)

Intense management of computer programs has led us to develop a common high capacity computer program maintenance system; to re-engineer the computer programs into common elements where possible across baselines thereby reducing maintenance cost and effort; to take advantage of prior resolutions resulting in more stable and more reliable computer programs thereby reducing CPPRs over time as the earlier baselines mature. The introduction of a new baseline i.e., B/L 3 in FY 1990 (O&M,N account) will itself have a higher number of CPPRs. Also an increased population within an existing baseline (i.e. B/L 2 grows from 11 to 12 ships) will cause the number of CPPRs to increase.

The funding requirement necessary to resolve Computer Program Problem Resolutions for AEGIS ships has been determined based on the following:

- 1) This is the projection of the number of CPPRs per ship per year:
B/L 1 & 2 = 113
B/L 3 = 230

- 2) Experience has demonstrated that as baselines mature the number of CPPRs per year will drop off as follows:

YEAR	MATURITY FACTOR	DESIGNATION
1ST	1.00	A
2ND	.80	B
3RD	.34	C

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

The total number or required CPPRs is approximated therefore by the following formulas:

$$\begin{aligned} \text{TOTAL \# OF CPPRS} &= (\text{A}) \times (\text{CPPRS PER SHIP}) \times (\text{\# OF SHIPS}) \\ &(\text{B}) \times (\text{CPPRS PER SHIP}) \times (\text{\# OF SHIPS}) \\ &(\text{C}) \times (\text{CPPRS PER SHIP}) \times (\text{\# OF SHIPS}) \end{aligned}$$

OF SHIPS equals the number of ships out of the SCN envelope.

The following is the number of ships which will be out of the SCN envelope:

<u>BASELINE</u>	<u>89</u>	<u>90</u>	<u>91</u>
B/L 1 & 2	6.9	5.7	4.5
B/L 3	0	2.0	4.6
TOTAL	6.9	7.7	9.1

The following table shows the results of calculations based on the above formulas projecting the total number of CPPRs per year:

<u>BASELINE</u>	<u>89</u>	<u>90</u>	<u>91</u>
B/L 1 & 2	780	644	509
B/L 3	0	460	1058
TOTAL	780	1104	1567

Based on prior experience and reported costs from the AEGIS Computer Center, it costs approximately \$15.4 thousand (K) in FY 1988 dollars, to perform a Computer Program Problem Resolution. Based on the average price per CPPR and the total number of CPPRs required, the following funding requirement to perform CPPRs has been determined:

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

FY 1989 CPPRs = $(780 \times \$15.8K) = \$12.5M$

FY 1990 CPPRs = $(1104 \times \$16.2K) = \$17.8M$

FY 1991 CPPRs = $(1567 \times \$16.7K) = \$26.1M$

3. COMPUTER PROGRAM DELIVERIES

AEGIS Computer Program Deliveries are directly linked to the requirement to provide and install Computer Program Backfit Mods both during and outside of industrial availability periods. Computer Program Deliveries encompass modification installation on board ships and at shore sites, testing/certification of the upgrades, and performing crew/user indoctrination.

The funding requirement for Computer Program deliveries is based on the same performance criteria that determines the funding requirement for Computer Program Backfit Mods:

- 1) 1 C/P Delivery is required to install the Backfit Mod accomplished during every scheduled availability.
- 2) 1 C/P Delivery is required to install the Backfit Mods performed for 90% of the ships at sea not receiving a Mod in the same year during a scheduled availability.

This is approximated by the following formula:

$$\text{C/P DELIVERY \$} = [(1 \text{ MOD}) \times (\# \text{ OF AVAILABILITIES}) + (1 \text{ MOD}) \times (.9 \# \text{ OF SHIPS AT SEA}) \times (\text{Cost of C/P Delivery})]$$

Based on prior experience and reported costs from the AEGIS Computer Center, it cost approximately \$332K in FY 1988 dollars to perform a C/P Delivery no matter whether the mod is accomplished during or outside a scheduled availability.

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

The following number of SRAs are scheduled at which time each ship will require a C/P Delivery to install a Backfit Mod:

FISCAL YEAR	89	90	91
SRAs	4	7	5

The following represents the 90% figure which each year will require a C/P Delivery to support a Backfit Mod and not receiving one during an SRA in the same year:

FISCAL YEAR	89	90	91
90% OF SHIPS AT SEA RECEIVING MOD OUTSIDE SCHEDULED SRA	9	9	14.4

Based on the above detailed formulas, requirements for C/P Deliveries are noted below with unit costs adjusted to reflect 3% inflation growth per year over the FY 1988 base:

FY 1989 C/P DELIVERIES \$ = [(\$342K X 4) + (\$342K X 9)] = \$4.4M
 FY 1990 C/P DELIVERIES \$ = [(\$352K X 7) + (\$352K X 9)] = \$5.6M
 FY 1991 C/P DELIVERIES \$ = [(\$362K X 5) + (\$362K X 14.4)] = \$7.0M

4. COMPUTER PROGRAM TECH ASSISTS

AEGIS Computer Program Tech Assists are closely linked to shipboard generated Computer Program Problem Reports and are driven by the number of ships at sea as well as Fleet experience with Combat System Baselines. Ship Assist Teams investigate

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

computer program problems to assess impact on system performance, identify corrective actions, and recommend solutions.

The funding requirement necessary to provide Computer Program Tech Assists has been determined based on the following historical performance criteria:

- 1) The requirement to provide Tech Assists will increase but not proportionally with the increasing number of ships at sea.
- 2) The number of Tech Assists for a new Combat System Baseline are disproportionately higher in the years immediately following its Fleet introduction.
- 3) As ships of a particular Baseline gain operational maturity, the number of required Tech Assists decreases.
- 4) The net effect is an almost flat funding requirement for Tech Assists from FY 1989 onward as the number of "mature" operational ships offsets the introduction of new Combat System Baselines.

Fiscal Year 1989 is the last year that the net Tech Assist requirement remains equal to the number of ships in the Fleet since FY 1989 is the first year that all Baseline 1 & 2 ships are fully operational. Therefore, the FY 1989 requirement has been predicated on the assumption that the equivalent of one Tech Assist per operational ship will have to be performed during this year. Beginning in FY 1990 and continuing in FY 1991 however, the maturity of Baselines 1 & 2 will provide a cumulative 10% reduction per year in the number of ships at sea requiring Tech Assists during this period even taking into account the increasing number of Tech Assists generated by the introduction of Baseline 3. This decreasing trend is expected to cease beginning in FY 1992 when Cruiser Baseline 4 and Flight 1 Destroyers begin to reach the Fleet in large numbers. This common configuration is significantly more complex than Cruiser

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Baselines 1-3 and there will be a large increase in the number of Tech Assists for Baseline 4 Cruisers and Destroyers until these reach a level of operational maturity.

The FY 1989-1991 requirement for C/P Tech Assists is approximated by the following set of formulas:

FY 1989 TECH ASSISTS = [(1 ASSIST) X (100% SHIPS AT SEA)]
 FY 1990 TECH ASSISTS = [(1 ASSIST) X (90% SHIPS AT SEA)]
 FY 1991 TECH ASSISTS = [(1 ASSIST) X (80% SHIPS AT SEA)]

Based on prior experience and reported costs from the AEGIS Computer Center, it costs approximately \$154 thousand (K) in FY 1988 dollars per ship at sea to perform Tech Assists. The following details the anticipated number of ships at sea which will require Tech Assists during FY 1989-1991:

	FY 1989	FY 1990	FY 1991
# OF SHIPS AT SEA	14	17	21
% REQUIRING TECH ASSISTS	100%	90%	80%
# OF SHIPS REQUIRING TECH ASSISTS	14	15.3	16.8

Based on the above formulas, requirements to perform Computer Program Tech Assists have been noted below with unit costs inflated 3% per year over the FY 88 base:

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

FY 1989 TECH ASSISTS \$ = [(\$159K) X (14.0)] = \$2.2M

FY 1990 TECH ASSISTS \$ = [(\$164K) X (15.3)] = \$2.5M

FY 1991 TECH ASSISTS \$ = [(\$169K) X (16.8)] = \$2.8M

5. MICROWAVE TUBES

The repair of failed highpower microwave tubes is an essential pillar of Fleet support for the expanding number of AEGIS ships at sea. Repair of these components is cost effective and requires less than half the lead time necessary to procure new replacement items.

The funding requirement necessary to repair AEGIS unique microwave tubes has been determined based on the following basic criteria:

- 1) The number of AEGIS ships at sea.
- 2) the average number of tube failures per ship at sea.

The funding requirement necessary to support the depot repair of failed highpower microwave tubes is approximated by the following formula:

$$\text{MICROWAVE TUBE \$} = [(\text{\# OF SHIPS AT SEA}) \times (\text{\# OF FAILURES PER SHIP AT SEA}) \times (\text{AVERAGE COST TO REPAIR})]$$

The following is the number of ships at sea by Combat System Baseline which will require depot repair of tubes:

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

BASELINE	1989	1990	1991
B/L 1 & 2	12	12	12
B/L 3 & 4	2	5	9
TOTAL	14	17	21

Based on prior experience reported by the Fleet Microwave Support Center at Crane, Indiana an average of 203 microwave tubes per ship, per year will be repairable failures. This average failure rate is based on a normal operations tempo and is constant for all Combat System Baselines. Based on reported costs from FMSC, the average cost to repair per unit is \$6,006 in FY 1988 dollars.

Based on the above information, requirements to repair high power microwave tubes have been determined with unit costs adjusted to reflect inflation growth over the FY 88 base:

FY 1989 TUBE REPAIR \$ = [(14) X (203) X (\$6192)] = \$16.7M

FY 1990 TUBE REPAIR \$ = [(17) X (203) X (\$6404)] = \$22.1M

FY 1991 TUBE REPAIR \$ = [(21) X (203) X (\$6615)] = \$28.2M

6. ELECTRONIC COMPONENTS

The repair of failed electronic components is an essential pillar of Fleet support for the expanding number of AEGIS ships at sea. Repair of these components is cost effective and requires less than half the lead time necessary to procure new replacement items. This requirement is interim in nature and will gradually transition to SPCC along an approved timetable. The major milestone of consequence during the FY 1989-1991 timeframe is the transition of Baseline 1 & 2 electronic component repair

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

responsibility to SPCC following FY 1989.

The funding requirement necessary to repair AEGIS unique electronic components has been determined based on the following criteria:

- 1) The number of AEGIS ships at sea.
- 2) The requirement to support repairs of failed electronic components consumed at shore sites through the execution of Training and Engineering functions. Shore sites can be expressed as some equivalent number of ships at sea.
- 3) The average number of electronic component failures per ship/shore site.

The funding requirement necessary to support the depot repair of failed AEGIS unique electronic components is approximated by the following formula:

$$\text{COMPONENT REPAIR \$} = \left[\left(\frac{\# \text{ OF SHIPS AT SEA}}{\# \text{ OF FAILURES PER SHIP/SITE}} \right) + \left(\frac{\# \text{ SHORE SITES}}{\text{AVERAGE COST TO REPAIR}} \right) \right] \times$$

The first two lines below detail the number of ships at sea by Combat System Baseline which will require depot repair of electronic components. Baseline 1 & 2 transitions to SPCC beginning in FY 1990 while the number of Baseline 3 & 4 ships at sea begins to increase. The third line represents the requirement to support the four major shore sites which consume electronic components as part of their Training and Engineering mission. The requirements of the ACSC, CSEDS, AEC, and ACC can be said to equate to additional "ships at sea" and is based on historical usage levels at these four sites.

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

BASELINE	1989	1990	1991
B/L 1 & 2	12	0	0
B/L 3 & 4	2	5	9
SHORE SITES	2	3	3
TOTAL	16	8	12

Based on prior experience reported by the AEGIS Electronic Component Depot at Moorestown, New Jersey an average of 148.2 electronic components per ship/site, per year will be repairable failures. This average failure rate is based on a normal operations tempo and is constant for all Combat System Baselines. The unit cost to repair is influenced by the Transition of Baseline 1 & 2 electronics to SPCC in FY 1990. This reduces the number of repairables - particularly in FY 1990, and drives up the unit cost to repair. The repair infrastructure can not be reduced for one year to accommodate the transition of Baselines 1 & 2 when Baselines 3 & 4 will pick up in FY 1991. The unit costs to repair are as follows: in FY 1989, \$8.96 thousand; in FY 1990, \$15.67 thousand; and in FY 1991, \$12.71 thousand.

Based on the above information, requirements to repair AEGIS unique electronic components have been determined:

FY 1989 COMPONENT REPAIR \$ = [(16) X (148.2) X (\$8.96K)] = \$21.2M
 FY 1990 COMPONENT REPAIR \$ = [(8) X (148.2) X (\$15.67K)] = \$18.6M
 FY 1991 COMPONENT REPAIR \$ = [(12) X (148.2) X (\$12.71K)] = \$22.6M

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

I. SHIP SYSTEMS SOFTWARE MAINTENANCE

Ship Systems Software funds the maintenance of complex computer programs for specific shipboard weapon and command and control systems. Funding provides planning, design, repair, production, testing and delivery of tactical computer programs, computers and command and control systems on surface combatants, aircraft and helicopters. The Fleet Combat Direction Systems Support Activities (FCDSSA) provide technical assistance and computer programs to shore establishments, communication systems, satellite systems and navigation systems in addition to regular support of Surface and Air Tactical Data Systems. Sonar Software Maintenance provides computer program support for the Lamps MK III Integrated Aircraft/Shipboard Weapons Systems including the SH-60B Helicopter and AN/SQQ-28(V) sonar processor. Standard Tactical Embedded Computer Resources provides software and hardware maintenance for the AN/UYK-43(V), AN/UYK-44(V) and OL-385(V) computer card-sets.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	\$	UNITS	\$
Total Funding	40,020	34,613	38,683	40,215
FCDSSA	26,483	23,999	24,563	24,889

Efforts Funded:

Surf Tac. Data System (No. of Ships Supported)	10,496	8,076	8,308	8,467	158
Air Tac. Data System (No. of Aircraft Supported)	1,172	1,172	1,258	1,276	102

Activity Group: Other Ship Systems Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
Spt. Software, Commun. & Tac. Intelligence Systems	616	619	619	619
JTIDS	370	621	1,124	1,091
Facility, Req. Maint. and General Costs	13,829	13,511	13,254	13,436
SONAR SYSTEMS SOFTWARE MAINTENANCE	4,969	2,549	1,965	2,004
Number of LAMPS MK III Sys	60	74	90	103
TACTICAL EMBEDDED COMPUTERS	8,568	8,065	12,155	13,322
Fleet Populations:				
AN/UYK 43 Computers	250	504	648	792
AN/UYK 44 Computers	2,050	2,850	3,650	4,350

Activity Group: Other Ship Systems Maintenance (continued)

Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Lines of Comptr Code (000s)		2,500		3,000		3,500		3,800
Number of Comptr								
Prgrms		350		350		375		400
Users		350		400		420		440
Efforts Funded (WYs):								
Support Software Mtce	3,000	38	2,925	38	3,128	40	3,161	40
ADA Software Mtce	1,568	21	1,040	14	3,127	40	3,161	39
Hardware Maintenance:								
UYK-43	2,000	26	2,400	31	2,900	36	3,500	44
UYK-44	2,000	25	1,700	20	3,000	37	3,500	44

Activity Group: Other Ship Systems Maintenance (continued)
Claimant: Naval Sea Systems Command

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. Civilian	<u>271</u>	<u>238</u>	<u>236</u>	<u>236</u>
USDH	271	238	236	236

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

Activity Group: Intermediate Maintenance
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

The Intermediate Maintenance Activity Group funds that maintenance which supports Organizational Level Maintenance. The efforts funded consist of calibration, repair or replacement of damaged or unserviceable parts, components or assemblies; the manufacture of critical nonavailable parts; and technical assistance to organizations using the equipment. Intermediate maintenance of equipment is normally accomplished in fixed or mobile shops, tenders, shore based repair facilities, or by mobile teams.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity 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		
SURF WARFARE SYS INT MNT	1,643	766	755	715	1,762		1,738			1,738		
UNDERSEA WARFARE SYS INT MNT	1,369	1,647	1,624	1,553	4,808		3,900			3,900		
Total, INTERMEDIATE MAINT	3,012	2,413	2,379	2,268	6,570		5,638					

Activity Group: Intermediate Maintenance (continued)
 Claimant: Naval Sea Systems Command

8. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$ 2,268
2. Pricing Adjustments		119
A. Industrial Fund Rates	(105)	
B. Other Pricing Adjustments	(14)	
3. Program Increases		4,183
A. Other Program Growth in FY 1990	(4,183)	
1) SURFACE WARFARE SYSTEMS INTERMEDIATE MAINTENANCE	1,011	
Increase reflects 2,386 additional mines being		
repaired and 4,435 additional destructors being		
repaired in order to support fleet requirements.		
2) UNDERSEA WARFARE SYSTEMS INTERMEDIATE MAINTENANCE	3,172	
Increase reflects 34 additional sonar equipments and		
47 additional periscopes being restored to meet fleet		
requirements.		
4. FY 1990 President's Budget Request		\$ 6,570
5. Pricing Adjustments		204
A. Industrial Fund Rates	(100)	
B. Other Pricing Adjustments	(104)	
6. Program Decreases		-1,136
A. Other Program Decreases in FY 1991	(-1,136)	
1) SURFACE WARFARE SYSTEMS INTERMEDIATE MAINTENANCE	-79	
Decrease reflects 182 fewer mines being repaired		
and 100 fewer destructors being repaired.		

Activity Group: Intermediate Maintenance (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

2) UNDERSEA WARFARE SYSTEMS INTERMEDIATE MAINTENANCE
Decrease reflects 24 fewer sonar equipments and 7 fewer
periscopes being restored.

-1,057

7. FY 1991 President's Budget Request

\$ 5,638

Activity Group: Intermediate Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

A. SURFACE WARFARE SYSTEMS

Provides intermediate level maintenance to missiles, mines and destructors. Efforts funded include waterfront support to ships by Naval Sea Support Centers for correction of casualty reports (CASREPs); certification of electronics systems in missiles once every 3 years at the Naval Weapons Stations; screening, testing, adjustment, and replacement of parts and components for mines and missiles. Also included is the field calibration and repair of test equipment for mines. In FY 1988 and the outyears, funding identified for intermediate maintenance for Missile Systems transfers to depot maintenance.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS	\$	UNITS
Total Funding	1,643	715	1,762	1,738

Mines Repaired	4,257	1,945	4,331	4,149
Destructors Repaired	6,408	2,480	6,915	6,815

B. UNDERSEA WARFARE SYSTEMS

The program provides pre-repair test and failure analysis; repair/replacement of damaged or unserviceable parts, components, modules, cables, or assemblies; manufacture of critical nonavailable parts; array and cable certification; post-repair test and calibration, and technical assistance to organizations using AN/WQM-6, STASS 2F Cog USW equipment, periscopes and the AN/SQS-35 Sonar Sensing Unit (SSU).

Program requirements are based on quantities of installed equipment, the age of equipment, the cycle time required to repair items, the position of the installed equipment on the ship, issue rates of equipment to the fleet and emergent fleet problems. Costs include material, travel, shipping, and administrative support.

Activity Group: Intermediate Maintenance (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	1,369	1,553	4,808	3,900
Sonar Equipment	18	26	60	36
Periscopes	20	20	67	60

IV. Personnel Summary. N/A

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

Activity Group: Maintenance Support
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

The Maintenance Support Activity Group supports functions which are not a part of depot, intermediate or organizational maintenance, but which facilitate any or all of those levels of maintenance. Maintenance support can be divided into three areas. The first, programming and planning support includes long range workload scheduling and resource utilization, centralized planning for all maintenance and all logistics support efforts (except engineering) for the development of weapon system and weapon support activity maintenance requirements. The second area is maintenance, technical and engineering support, which includes technical and engineering efforts in the development of maintainability concepts and the maintenance portion of logistics plans dealing with weapons and equipment. The third is technical and engineering data, which includes the preparation of technical and engineering data for all types of equipment, and provides for the preparation, editorial review and/or revision of equipment publications pertaining to the operation, repair and repair parts support of DOD material.

II. Financial Summary (Dollars in Thousands).

	FY 1988			FY 1989			FY 1990		FY 1991	
	FY 1988 Actual	Amended Pres. Budget	Appro- piation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request	Budget Request	Budget Request
SURFACE WAR SYS MAINT SPT	63,727	52,736	51,773	50,771	58,196	55,581				
UNDERSEA WAR SYS MAINT SPT	29,445	21,945	21,527	19,525	25,231	19,131				
TMD SUPPORT	4,344	2,870	2,830	2,706	3,031	2,814				
AMMUNITION SYS MAINT SPT	1,463	1,034	1,019	965	1,195	969				
EMISSIONS CONTROL MAINT SPT	5,241	5,692	5,680	5,674	5,639	5,441				
MS INACTIVE SHIP	6,040	5,111	5,040	5,993	6,287	6,294				
CG 47/DDG 51 WPN SYS MNT SPT	27,831	22,020	22,020	41,590	75,557	85,436				
AVIATION ASW MAINT SPT	925	771	760	727	689	659				
NSSP MAINTENANCE SUPPORT	6,903	6,144	6,016	5,640	5,781	5,169				
Total, MAINTENANCE SUPPORT	145,919	118,323	116,665	133,591	181,606	181,494				

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$ 133,591
2. Pricing Adjustments		5,291
A. Annualization of FY 1989 Direct Pay Raise	(18)	
1) Classified	(18)	
B. FY 1990 Direct Pay Raise	(36)	
1) Classified	(36)	
C. Stock Fund	(13)	
1) Non-Fuel	(13)	
D. Industrial Fund Rates	(2,482)	
E. Other Pricing Adjustments	(2,742)	
3. Functional Program Transfers	-1,793	
A. Transfers Out	(-1,793)	
1) Intra-Appropriation	-981	
a) TRANSFER OF SUPPLY REIMBURSABLE FUNDING - 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 reimbursably. 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 in efforts from that performed in previous years.		
b) Transfer of funds to Naval Supply Systems Command for MK 50 Advanced Light Weight Torpedo (ALWT) supply support.		-500

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

-100

c) CONTRACTOR SUPPORT CONVERSION - Transfer of resources from other 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 excessive contractor involvement contains the potential for disclosure of sensitive information and improper preparation of specifications or processing of proper documentation.

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 workforce.

-212

4. Program Increases

49,208

A. One-Time FY 1990 Costs (2,099)
 1) UNDERSEA WARFARE MAINTENANCE SUPPORT - Increase is for accomplishment of Vertical Launch System (VLS) Initial Certification and Readiness (VICAR) Program required to certify weapon system deployment on 13 ships delivered prior to system initial Operating Capability.

(2,099)

B. Other Program Growth in FY 1990 (47,109)

(6,168)

1) SURFACE WARFARE SYSTEMS MAINTENANCE SUPPORT - Increases are associated with an increase in fleet population for Medium Range, Vertical Launch, and NATO Seasparrow Surface Missile systems and ships, Target Acquisition Systems, Search Radar Electronics, Antenna Groups, Ancillary Equipments and ASW Torpedoes which is reflected by increased Industrial Support and In-Service Engineering. For Industrial Support, an additional \$916 is funded in FY 1990. Specifically, 6 additional workyears in support of depot efforts for Missile Maintenance of Standard Missile (SM-1 and SM-2) (400);

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

4 additional workyears for Medium Range Missile Weapons Systems (271); 3 additional workyears for Long Range Missile Weapon Systems (204); and increased support for Gun Weapons Systems (41). For In-Service Engineering, an additional \$2,569 is funded in FY 1990. Increase reflects 3 additional workyears for Combat System Ship Qualification Trials (CSSQT) team efforts for Coast Guard Medium and High Endurance Cutters and to continue in-house Navy support for Medium Range Missile Weapons Systems (267). For Long Range Missile Weapons Systems, 4 additional workyears of engineering support for fire control systems (290). For Vertical Launching Systems, four more ships and seven additional launchers are being supported (139). Increase reflects 6 additional workyears for Search Radar systems for the introduction of solid state components to correct reliability problems with current equipment. This support will provide test monitoring, documentation review and updates (429). For NATO Seasparrow, increase reflects an additional 11 workyears of support for Block 1R upgrade efforts for NATO Seasparrow Surface Missile System and Target Acquisition System as directed by the NATO Seasparrow Readiness Council (SEASPARC) (1,123). An additional 5 workyears are provided at the NATO Seasparrow Project Office in support of cooperative deployment, production, and follow-on support for the NATO Seasparrow Surface Missile System in accordance with the Memorandum of Understanding (MOU) with other NATO countries (262). For Stinger Weapons, increased support of the MK-31 Rolling Airframe Missile (RAM) (59). Other In-Service Engineering efforts are for support of Mine Maintenance (224) and Coast Guard Maintenance technical assistance support for weapons overhauls (29). Increased support for Anti-Ship Missile (ASM) Electronic Warfare (EW) (112). ASW Surface Warfare increases provide for the MK 50 Advanced Light Weight Torpedoes (ALWT). Funds will support Integrated Logistics Support (ILS) efforts,

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

configuration control, and technical support. The In-Service Engineering Agent (ISEA) needs to be operational and prepared to do 94 exercise firings which will occur in FY 1991 (2,050). For Vertical Launch ASROC (VLA), ISEA certification and start-up of Naval Weapons Station Yorktown as the first VLA Intermediate Maintenance Activity; also preparations will take place for the start-up of the depot (268).

2) UNDERSEA WARFARE MAINTENANCE SUPPORT - Torpedo Tube

4,516

Rework (not broken out in the performance criteria) - Establishment of In-Service engineering support to respond to fleet and shipyard requests for unique equipment problems for 160 signal ejectors on all submarines, track and ship over 60 ORDAIT kits, maintain and ship over 54 long-leadtime material items to support fleet and shipyard CASREPS and emergency equipment, and answer over 60 fleet requests for emergency equipment repairs (414). ASW Target - (not broken out in the performance criteria) 126 more ISEA actions will occur. These actions include asset control, programming, planning, and technical data support actions (199). SUBROC - Support for the demilitarization and disposal of 612 major missile components (111). BQQ-5 - 614 additional failed pieces of equipment will be sent back to the depot and analyzed (1,571). Transducer Repair Facility/Towed Line Array (TRF/TLA) - Two additional pieces of test equipment at the Transducer Repair Facility in support of transducer and hydrophone testing will be supported (78). BSY-1 - Support eight new BSY-1 systems entering the fleet. This support includes certifying that correction of program trouble reports are made. There will also be increased engineering support for system failures during shipyard checkout, sea trials, and the post-delivery period (2,077). 2F COG Undersea Warfare (USW) - Increase reflects restoration support of 145 sonar equipments and 998 transducers/hydrophones (66).

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

3) TMD SUPPORT - Increase reflects an additional 3.7 workyears of engineering and data base management efforts in support of Test Measurement Diagnostic Equipment.	333
4) AMMUNITION SYSTEM MAINTENANCE SUPPORT - Increase reflects two additional workyears for ammunition malfunction investigations being completed.	183
5) EMISSIONS CONTROL MAINTENANCE SUPPORT - Increase reflects funding for one additional major fleet training exercise (189); additional maintenance of open sea pollution abatement equipment (196), and increased Navy efforts to comply with (a) Federal and State environmental laws for the prevention of oil pollution from Navy ships and (b) plastic and solid waste discharge requirements mandated by international treaties and conventions and Public Law 100-220. The benefits that accrue to the Navy include improved access to foreign and domestic ports, freedom from litigation and an heightened public image; as well as an operational advantage since pollutant discharge will no longer serve as detectable evidence of the presence or location of Navy ships (1,498).	1,883
6) MS INACTIVE SHIP - Increase reflects 10 additional contract workyears in support of GOCO contracts.	145
7) CG 47/DDG 51 WEAPONS SYSTEMS MAINTENANCE SUPPORT - Increase in OP Cycle Integration is due largely to three additional Selected Restricted Availabilities (SRAs) and three additional ships in the fleet (9,193); Combat System In-Service Engineering increases due to three additional ships at sea, the three SRAs and the introduction of Baseline 4 (7,652); and Hull, Mechanical and Electrical In-Service Engineering (ISE) increases due to three additional ships at sea, three SRAs and the introduction of the DDG 51 class which will require an increased level of ISE support for the unique Collective Protection System and Machinery Control System (1,504). Combat System Life Support Engineering increases due largely to the	33,668

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

introduction of Baseline 4 which results in three operational baselines (4,008) and the introduction of the Warfighting Improvement Program (WIP) engineering efforts necessary to implement Navy approved upgrades for all Baselines which includes design efforts and test site and prior alt installation tests (11,311). 213

8) NSSP MAINTENANCE SUPPORT - Increase in program planning support and technical documentation and engineering data effort for the Advanced Signal Processor (ASP) or AN/UYS-1 and the Enhanced Modular Signal Processor EMSP or AN/UYS-2.

5. Program Decreases

-4,691

A. Other Program Decreases in FY 1990

(-4,691)
-267

- 1) SURFACE WARFARE SYSTEMS MAINTENANCE SUPPORT - For In-Service Engineering, reduced funding reflects 1 less workyear for Missile Maintenance Support (-60) and 4 fewer workyears in support of the Basic Point Defense Missile System (BPOMS) (-203). For the Self Defense Surface Missile System project office there is an average grade salary adjustment (-4).
- 2) UNDERSEA WARFARE MAINTENANCE SUPPORT - MK 48/ADCAP - Reduced specialized assistance for MK 48/ADCAP field engineering support to the fleet, as well as maintenance support to the maintenance activities afloat and ashore. Reductions include operation of torpedo laboratories to investigate/validate fleet reported deficiencies, process fleet waivers and deviations, and provide support services to the Intermediate Maintenance Activities (IMAs) including certifications and technical assists. Also reduced management and operation of the MK 48/ADCAP maintenance and ORDAIT programs which provides for management and coordination of all aspects of the MK 48/ADCAP Integrated Logistics Support (ILS) program including provisioning and material requirements analysis, technical logistics support, and

-970

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

management for spares, repair parts, and procurement. Decrease also for the Heavyweight Torpedo Technical Data System (HTIDS) which tracks the status of all torpedo ordnance alterations (ORDALTS), location and status of all Functional Item Repairable (FIR) components, and the configuration of all torpedoes throughout the fleet. Also reductions in support for the maintenance, upgrade, production, and review of all new technical manuals (-419). U/W FCS - a) MK 117/CCS MK 1 decrease results in the elimination of failure data collection, Maintenance and Material Management (3M) data analysis and other maintenance engineering support for 23 SSNs (-456), and b) Other FCS - Ten fewer fire control systems will receive technical feedback reports (-95).
 3) EMISSION CONTROL MAINTENANCE SUPPORT - Decrease reflects 23.1 fewer workyears of in-service engineering support for RADIAC equipment. A major equipment (IM-239) will not receive in-service or ILS support. Logistics support document maintenance will not be accomplished and calibration procedures will only be maintained on about half the equipment.
 4) MS INACTIVE SHIP - Decrease reflects an average grade salary adjustment.
 5) CG 47/DDG 51 WEAPONS SYSTEM MAINTENANCE SUPPORT - Decrease is due to no requirements for Follow-On Test and Evaluation.
 6) AVIATION ASW MAINTENANCE SUPPORT - Decrease reflects end of support of attack carrier (CV) ASW-Module program.
 7) NSSP MAINTENANCE SUPPORT - Decrease reflects reduced engineering and maintenance support efforts for the Advanced Signal Processor (ASP) or AN/UYS-1 and the Enhanced Modular Signal Processor (EMSP) or AN/UYS-2.

-2,146

-28

-922

-66

-292

6. FY 1990 President's Budget Request

\$ 181,606

7 0226

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

7. Pricing Adjustments			5,538
A. Annualization of FY 1990 Direct Pay Raise	(	20)	
1) Classified		20	
B. FY 1991 Direct Pay Raise	(	60)	
1) Classified		60	
C. Stock Fund	(	2)	
1) Non-Fuel		2	
D. Industrial Fund Rates	(	1,949)	
E. Other Pricing Adjustments	(	3,507)	
8. Program Increases			8,543
A. Other Program Growth in FY 1991	(	8,543)	
1) SURFACE WARFARE SYSTEMS MAINTENANCE SUPPORT - Increase		703	
is reflected within the Surface and ASM Maintenance Support			
program. Specifically, 2 additional technical responses to			
the MK 309 ASW Fire Control System (FCS), 3 additional			
technical responses for the MK 116 FCS software and increased			
Sensors Engineering (110), and 158 additional sonar fleet			
installations will be supported on 27 different sonar			
systems (297). Further, 5 additional workyears for cooperative			
development, production, and follow-on support for the NATO			
Seasparrow Missile System in accordance with the Memorandum			
of Understanding (MOU) with other NATO countries (290) and			
an adjustment for 1 additional day in the pay year (6).			
2) EMISSIONS CONTROL MAINTENANCE SUPPORT - Increase		32	
reflects additional in-service engineering support for			
RADIAC equipment.			
3) MS INACTIVE SHIP - Increase reflects adjustment for one		6	
additional day in the pay year.			
4) CG 47/DDG 51 WEAPON SYSTEM MAINTENANCE SUPPORT -		7,802	
Increases due to the introduction of Baseline 4 resulting			
in 4 operational baselines (1,314); Follow-On Test and			
Evaluation (FOI&E) is required as both the DDG-51 and the			

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

CG-65 require a class and baseline introduction respectively. FOT&E is required to support the introduction of a new ship class and includes fueling for range and aircraft services and technical support (4,414). The Cooperative Engagement Engineering Program is a new initiative to support the transition of Battle Group Anti-Air Warfare Control efforts from Research and Development to fleet application. These efforts advance and investigate technology to share and employ the AEGIS Combat Systems capabilities with the entire battle group (2,074).

9. Program Decreases

-14,193

A. Other Program Decreases in FY 1991
1) CONTRACTOR SUPPORT CONVERSION - Decrease
reflects the FY 1991 effect of the transfer of
resources from other 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 excessive contractor involvement
contains the potential for disclosure of sensitive
information and improper preparation of specifications
or processing of proper documentation.

(-14,193)
-600

-4,992

2) SURFACE WARFARE SYSTEMS MAINTENANCE SUPPORT - Decrease
includes a reduction in support for In-Service Engineering
efforts. Specifically, 4 fewer workyears of support for
Missile Systems Maintenance Support (-292); reduced support
for Medium Range Missile Weapons Systems of 8 fewer workyears
(-527); 3 fewer workyears for Long Range Missile Weapons
Systems (-145), and 4 fewer workyears in support of the
MK 41 Vertical Launching System (VLS) (-205). For the
support of Gun Systems, there is a reduction for Gun Weapons

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

Systems (-19) and for Coast Guard Support (-29). For the Self Defense Surface Weapons System, reduce quick reaction and engineering support of 8 fewer workyears for the NATO Seasparrow Missile System, 4 fewer workyears for the MK 23 Target Acquisition System and 2 fewer workyears for the Basic Point Defense Missile System (BPDMS) (-1,353). For Search Radar Maintenance Support, 6 fewer workyears are reflected (-461). For Stinger, reduced support for Fleet Deployment Briefings including 1 less workyear (-105); and Mine Maintenance reflects 1 less workyear and other decreased support (-210). Reduced support for Anti-Ship Missile (ASM) Electronic Warfare (EW) (-49), 60 fewer exercise firings for the MK 50 Advanced Light Weight Torpedo (ALWT) will receive technical support from the In-Service Engineering Agent (ISEA) (-1,572). There is an average grade salary adjustment for the NATO Seasparrow Project Office (-25).

-6,826

3) UNDERSEA WARFARE MAINTENANCE SUPPORT - Sub Torpedo Tubes (Not broken out in the performance criteria) - 50 fewer shipyard request/fleet emergency requests will be answered (-116). Other FCS - 17 fewer casualty report investigations will take place (-251). ASW Target - 165 fewer In-Service Engineering Agent (ISEA) asset control, programming, planning and technical data support actions will be done (-240). FCS MK 117/CSS MK 1 - Approximately 180 fewer program trouble reports submitted by the fleet will be analyzed (-271). SUBROC - End of SUBROC program in Maintenance Support (-918). TRF/TLA - The Transducer Repair Facility/Towed Line Array program provides support for test equipment which is the prime post restoration acoustic test system used to ensure that restored transducers and hydrophones are ready to be returned to Navy Supply system in a Ready-For-Issue (RFI) condition; seven fewer pieces of test equipment will be calibrated and adjusted to test transducers and hydrophones returning to the supply system

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

after restoration (-273). BQQ-5 - 236 fewer pieces of failed equipment will be sent back to the depot and analyzed (-698). BSY-1 - Reduced response to program trouble reports from the fleet on hardware and software malfunctions for three new BSY-1 systems (-713). MK 48/ADCAP - Reduced specialized assistance for MK 48/ADCAP field engineering support to the fleet, as well as maintenance support to the maintenance activities afloat and ashore. Reductions include operation of torpedo laboratories to investigate/validate fleet reported deficiencies, process fleet waivers and deviations, and provide support services to the Intermediate Maintenance Activities (IMAs) including certifications and tech assists. Also reduced management and operation of the MK 48/ADCAP maintenance and Ordnance Alteration (ORDALT) programs which provide for management and coordination of all aspects of the MK 48/ADCAP Integrated Logistics Support (ILS) program including provisioning and material requirements analysis, technical logistics support, and management for spares, repair parts, and procurement. Decrease also for the Heavyweight Torpedo Technical Data System (HTTDS) which tracks the status of all torpedo ORDALTs, location and status of all Functional Item Repairable (FIR) components, and the configuration of all torpedoes throughout the fleet. Also reductions in support for the maintenance, upgrade, production, and review of all new technical manuals (-960). MS-2F COG EMS - Decrease reflects restoration support on 927 fewer transducers/hydrophones (-80). MS Vertical Launch System (VLS) - Completion of VLS Initial Certification And Readiness (VICAR) efforts in FY 1990 (-2,306).
4) TMD SUPPORT - Decrease reflects 5.9 fewer workyears of technical engineering support for Test Measurement and Diagnostic Equipment.
5) AMMUNITION SYSTEM MAINTENANCE SUPPORT - Decrease reflects four fewer workyears in maintenance support of

-308

-263

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

unservicable rounds.	
6) EMISSIONS CONTROL MAINTENANCE SUPPORT - Decrease reflects reduced fleet training support (-16); reduced effort on the Boom Handling System Maintenance Manual and Workboat Cold Weather Modification design maintenance support tasks (-133) and a reduction of effort associated with the Navy's FY 1990 initiative to reduce oil pollution and plastic and solid waste discharges from Navy shipyards (-258).	-407
7) MS INACTIVE SHIP - Decrease reflects reduced workyears in support of Government Owned Contractor Operated (GOCO) contract efforts.	-162
8) AVIATION ASW MAINTENANCE SUPPORT - Decreased target support.	-51
9) NSSP MAINTENANCE SUPPORT - Decrease reflects reduced engineering and maintenance support efforts for the Advanced Signal Processor (ASP) or AN/UYS-1 and the Enhanced Modular Signal Processor (EMSP) or AN/UYS-2. Reduction represents 7 fewer workyears of support for the In-Service Engineering Agent at the Naval Weapons Center at Crane, Indiana.	-584

10. FY 1991 President's Budget Request \$ 181,494

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

A. SURFACE WARFARE SYSTEMS

This program funds engineering and technical support for maintenance of Surface Warfare Systems. Funding provides maintenance support for missiles, Long and Medium Range Missile Systems, Vertical Launch Systems, Basic Point Defense Surface Missile Systems (BPDMS), Self Defense Surface Weapon Systems, STINGER, guns, search radars, mines, Anti-Submarine Warfare (ASW) Systems and Anti-Ship Missile (ASM) Electronic Warfare (EW) Systems. Specific tasks include equipment maintenance analysis to develop solutions to problems identified by the fleet, engineering and management support to correct casualty reports (CASREPs) including planning, engineering changes, on-site assistance, writing technical feedback reports and technical document changes and maintaining data on maintenance actions. The program also includes maintenance support for Navy-owned systems on Coast Guard cutters and readiness improvement and test capability development for the NATO Seasparrow missile systems. Additionally, funding is provided for life-cycle software support, Fleet Maintenance Activity (FMA), Engineering Technical Services, and Intermediate Maintenance Activity (IMA) support for Electronic Warfare Systems.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	63,727	50,771	58,196	55,581
=====				
IN-SERVICE POPULATION				
Missile Weapons Systems				
Medium Range Missile	447/109	369/126	377/126	377/126
Weapon Systems (SM-1,2 MR)				
(Major Systems/Ships)				
Long Range Missile	170/31	170/31	170/31	170/31
Weapon Systems (SM-2 ER)				
(Major Systems/Ships)				
MK-41 Vertical Launch	18/10	40/25	47/29	67/41
Systems/Ships				

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Basic Point Defense				
Msl Sys(BPDMS)/Ships	31/22	28/19	24/15	22/13
NATO SEASPARROW				
Surface Missile				
Systems/Ships	79/56	81/57	84/58	86/60
Mk-23 Target Acquisition				
Systems/Ships	36/36	44/44	44/46	52/52
Gun Weapons Systems				
(Includes Coast Guard				
Guns)	711	762	739	724
Search Radar Systems				
Antenna Groups	683	689	697	675
Electronics Systems	1,330	1,345	1,375	1,390
Ancillary Equipments	2,249	2,299	2,300	2,300
ASW Surface Systems				
MK 46 Torpedo (# of	1,086	982	518	0
Additional Systems)				
CAPTOR mines (# of	69	0	0	0
Additional Systems)	246	246	246	246
Fire Control Systems	145	145	145	145
ASROC Launchers				
VLA (# Additional Sys)			0	116

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
EFFORTS FUNDED:				
1. INDUSTRIAL SPT (WYS)	3,388	2,776	4,784	5,059
Missiles	11	11	17	17
Missile Weapons Systems				
Medium Range MWS	23	19	23	23
Long Range MWS	14	12	15	15
Vertical Launch	8	3	3	3
Gun Weapons Systems	16	6	7	7
2. IN-SERVICE ENGINEERING (WYS)	47,344	36,829	39,890	37,782
Missiles	61	41	40	36
Missile Weapons Systems				
Medium Range MWS	88	61	64	56
Long Range MWS	56	40	44	41
Vertical Launch Sys	8	10	10	6
Gun Weapons Systems				
Coast Guard Guns	4.5	1	2	2
NATO SEASPARROW/Funded WYS				
Direct Workyears	85	81	86	78
	19	19	24	29

7 0234

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Mk-23 Target Acquisition Systems/Ships	77	71	77	73
Basic Point Defense Msl Sys/Ships	27	22	18	16
STINGER	7	6	6	5
Search Radar Systems	88	62	68	62
Mines Systems	34	19	20	19
3. ASW WEAPONS	7,101	6,571	8,674	7,780
4. ANTI SHIP MISSILE (ASW)				
ASM (EW) Sys Maint Spt	5,894	4,595	4,848	4,960
AN/SLQ-32 (# of systems)	310	324	326	336
AN/SLQ-17 (# of systems)	14	14	10	5
AN/WLR-1 (# of systems)	12	18	20	23
Other Surface EW Equip (units)	582	582	582	582

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

B. UNDERSEA WARFARE SYSTEMS MAINTENANCE SUPPORT

This program has three main efforts: 1) 2F Cog Electronics USW - Maintenance Support - provides programming and planning support (workload scheduling and resource utilization and maintenance, technical and engineering support), for repairable 2F Cog Undersea Warfare Equipment such as sonar systems towed arrays, depth sounders, acoustic countermeasures, periscopes, undersea communication systems installed or to be installed in attack submarines, ballistic missile submarines, and major surface combatants and support ships; 2) Submarine ASW Maintenance Support - provides for direct maintenance support of submarine ASW weapon systems. This includes in-service engineering support for each system for the purpose of ensuring combat system readiness; and 3) VLS Maintenance Support - the submarine VLS program supports all active SSN 688 Class Submarines (Improved variant). This part of the program provides technical support for the VLS missile tube system (MTS) electronic equipment, VLS MTS mechanical equipment, and VLS fire control system (FCS) electronic equipment. Technical support includes development and updating of planned maintenance, software documentation, logistic support analysis, configuration management planning, auditing and accounting, system effectiveness engineering and in-service field engineering.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
Total Funding	29,445	19,525	25,231	19,131
2F Cog Electronics	758	564	653	593
Transducers and				
Hydrophones	3,149	2,330	3,328	2,401
Sonar Equipment	18	15	160	160
Periscopes (WYs)	9	9.5	10	11

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

		FY 1988	FY 1989	FY 1990	FY 1991
		\$	\$	\$	\$
		UNITS	UNITS	UNITS	UNITS
Submarine ASW MS					
1. Torpedo MS		12,721	7,828	7,846	6,910
a. MK 48		+62	+0	+0	+0
b. ADCAP		+18	+0	+106	+319
2. UW FCS MS		7,972	4,273	3,977	3,332
a. MK 117/CCS :K1		91	91	91	91
b. Other FCS		137	134	124	107
3. SUBROC		1,110	700	815	0
a. AN/BQQ-5		313	300	291	281
b. TRF		4,703	2,744	4,359	3,515
TLA		1,260	773	1,387	1,151
a. AN/BSY-1		47	30	32	25
b. Wide Aperture Array		8	4	4	4
5. AN/BSY-1		847	1,884	3,889	3,269
a. Wide Aperture Array		4	8	16	19
b. Wide Aperture Array		1	1	1	1

* The SUBROC (SUBmarine ROcket) line equates to the Fleet Population supported and not the number of systems fully supported.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$ UNITS	\$ UNITS	\$ UNITS	\$ UNITS
SSN-688 VLS Maint Spt	1,334	1,532	3,692	1,512
# Tubes Supported (12 per boat)	144	192	228	300

UM FCS = Underwater Fire Control System; SUBROC = Submarine Rocket
 TRF/TLA = Transducer Repair Facility/Towed Line Array

C. TEST EQUIPMENT MAINTENANCE SUPPORT

This program provides for the technical engineering support for all fleet held electronic, electrical and mechanical test measurement and diagnostic equipment (TMDE). This includes developing calibration procedures, establishing calibration intervals, acquisition of calibration standards, developing specifications for standards and responding to fleet calibration problem reports.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$ UNITS	\$ UNITS	\$ UNITS	\$ UNITS
Total Funding	4,344	2,706	3,031	2,814

Engineering Support (workyears)	80.2	43.6	47.3	41.4

Performance criteria changes to more accurately display program.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

D. AMMUNITION SYSTEMS MS

Provides support to investigate malfunctions and to prepare and update depot maintenance work requirements and automated data lists used by depot maintenance activities.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
Total Funding	1,463	965	1,195	969

Ammunition
 Maintenance Support
 Services (workyears)

23	15	17	13

E. EMISSIONS CONTROL MAINTENANCE SUPPORT

This program provides for the capability to protect and enhance the quality of the environment through control and abatement of environmental pollution caused by surface ships such as oil waste, sewage and wastewater, solid waste, hazardous waste, and air pollution. Funding provides for certification, documentation, engineering support/services, in-service engineering, life cycle management, logistic support, maintenance support and guidance to the fleet on shipboard pollution control systems and equipment, and Fleet operational training exercises. Also funded is maintenance support for all Navy open sea pollution abatement equipment located at six Emergency Ship Salvage Material (ESSM) bases. The benefits of pollution abatement efforts are improved operational readiness, compliance with regulations, freedom from litigation, and access to foreign ports. Additionally, funds support the maintenance of Radiation, Detection, Indication and Computation (RADIAC) equipment.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$ UNITS	\$ UNITS	\$ UNITS	\$ UNITS
Total Funding	5,241	5,674	5,639	5,441
Tasks:				
Fleet Training				
Major Exercises	1	1	2	2
Minor Exercises	1	1	0	0
ESSM Maint Supt				
>\$520K	2	1	7	5
<\$520K	2	1	2	0
Engineering Support (WY)	11	6	20	18
RADIAC (WY)	47.4	63.5	40.4	41.3

F. INACTIVE SHIP MAINTENANCE SUPPORT

This program: 1) provides for the operation of four Government-Owned Contractor-Operated (GOCO) Inactive Ship Maintenance Facilities at Bremerton, WA., Portsmouth, VA., Pearl Harbor, HI., and Philadelphia, PA., as well as for the salaries of civilian personnel at those facilities; 2) supports repairs and regular maintenance to the inactive ships berthed at these activities and the preparation of selected ships/craft for disposal, including removal of urgently required materials to meet known system requirements, and 3) reimbursing the Maritime Administration (MARAD) for the maintenance and temporary lay-up of Navy assets. The Chief of Naval Operations (CNO) policy is to ensure that inactive ships and crafts are maintained in the highest practicable state of material readiness consistent with their probable employment. The composition of the inventory of inactive ships is reviewed annually by the CNO to determine the number of ships to be held in the various categories of readiness.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	6,040	5,993	6,287	6,294
1. Civilian Pers. (WY)	1,189	1,317	1,317	1,356
2. GOCO Contracts (WY)	3,441	3,175	3,416	3,335
3. Other Maint. and Vessel Spt. (# ships/# craft)	1,201	1,256	1,300	1,339
4. Property Disposal (# ships/# craft)	45	40	45	50
5. MARAD Costs	164	205	209	214

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

6. CG-47/DDG-51 WEAPON SYSTEM ENGINEERING MAINTENANCE SUPPORT

This account provides AEGIS System Maintenance support in the following areas:

Op-Cycle Integration. In 1979 the Chief of Naval Operations directed the establishment of a CG 47 class operating cycle that would provide maximum operational availability while maintaining war readiness. This operating cycle was extended to 80 months for AEGIS cruisers in September, of 1986. In order to achieve this operational goal, innovative maintenance planning and better execution are required to ensure that maintenance/modernization requirements are accomplished during time constrained availabilities. The AEGIS Expanded, Expanded Planning Yards (Ingalls Shipbuilding for AEGIS cruisers and BIW for AEGIS destroyers) are the Program Manager's key agents in carrying out this tasking. The Expanded, Expanded Planning Yard is built on concepts and procedures developed by the submarine community whose operational requirements most closely match those of AEGIS cruisers and destroyers. AEGIS Planning Yards perform all the traditional Navy Planning Yard functions as well as integrating maintenance and modernization work packages, long term modernization planning and more intensive work in the areas of testing, material management, configuration management, and hands-on industrial support. The Expanded, Expanded Planning Yards support a demanding operations tempo while maintaining the high engineering quality and standards of AEGIS ships. Selected Restricted Availabilities/Docking Selected Restricted Availability (SRA/DSRAs of 2 and 3 months respectfully) occur every 20 months. At the end of the 80 month point a Regular Overhaul (ROH) of seven months is conducted. Maximum phased modernization must be done during each SRA/DSRA if the ROH is to be kept to seven months and complete with ships in the directed new configuration for the subsequent opcycle. Execution of the ROH in seven months (vice the normal twelve month period) reduces the high industrial costs associated with a shipyard industrial period by 41% and provides the operational commander with \$ additional months of ship operational availability. Extending overhauls to twelve months due to a lack of sound integrated planning for this complex system equates to removing 2 AEGIS Cruisers from the Fleet - when viewed over the life of the AEGIS cruiser fleet.

Combat System In-Service Engineering. The uniqueness of the AEGIS combat system requires organic fleet maintenance support capabilities and experience to maintain a totally integrated combat system. This account provides responsive engineering support to maintain CG 47 and DDG 51 class ships combat ready, world wide. It provides the engineering base and incidental material support needed to assess ship/fleet readiness, provide shipboard engineering support, implement combat system changes, evaluate ship/system doctrine, and perform integrated logistics support. The combat system in-service engineering program has been structured to accommodate growth in ship population, system differences among ships (principally Baselines) and the introduction of combat system changes derived from corrective actions and fleet

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

modernization requirements.

Hull, Mechanical, and Electrical (HM&E) IN-Service Engineering. Much of the in-service engineering capabilities required to support the CG 47 class are in place to support the DD 963 class. This account supplements those in place capabilities to cover (1) differences between CG 47 and DD 963 equipment suites and (2) the significant difference in programmed operational availability of the two classes: approaching 90% for CG 47 vice 60% for DD 963. This line also will initiate in-service engineering capabilities in FY1989 to support the DDG 51 class. Although most of the CG 47 class unique systems and equipments will carry over to the DDG 51, the Arleigh Burke is a new hull form with much of its own machinery and equipments. The Arleigh Burke class will contain a unique collective protection system and a new machinery control system which will require dedicated in-service engineering.

Follow-on Test and Evaluation. Follow-on Test and Evaluation is required with the introduction of combat system upgrades to verify and validate their capabilities and performance. This account supports required range services, technical support, test equipment modifications, test scenario development, data reduction and aircraft services. Effective FOT&E contributes directly to the Navy objective of increasing fleet readiness by realistically determining improvement areas for systems and equipments. FY 1990 funds will support FOT&E for cruiser baseline 3 phase 3 upgrades, and FY 1991 funds are scheduled to support the extensive FOT&E which must precede DDG 51 entrance to active fleet service.

Combat System Life Support Engineering (LSE). The concept of operational land based sites for combat system life support engineering has been integral to AEGIS program planning for the past twelve years. The current plan identifies three sites to be located at NSWC, Dahlgren: a computer center, the AEGIS Computer Center (ACC), a C-school, the AEGIS Education Center (AEC), and a land based "ship", the AEGIS Combat System Site (ACSC). In 1982, the Congress mandated that the land based "ship" be re-sited at Wallops Island, Virginia. A land based "ship" replicating key combat system spaces in the AEGIS cruiser began performing engineering operations in February 1988. A similar site replicating the AEGIS destroyer was approved for construction at Wallops Island and will commence operations in 1990. These sites will accommodate proofing of selected equipments and computer program changes as well as combat system engineering development. AEGIS combat system engineering supports not only forward fit developments but version upgrades incident to being implemented into in-service ships in accordance with the AEGIS Warfighting Improvement Program (WIP). The ACSC facilitates combat system engineering by allowing problem resolution to be pursued using a faithful replication of the combat system configuration affected. This account also supports ACSC and Wallops Island operations and maintenance both Command Support and operational functions required to execute their combat system LSE functions. To date \$300M has been invested in plant and equipment.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Warfighting Improvement Program (WIP) Engineering: AEGIS WIP Combat System Engineering is an indispensable part of the implementation of the approved AEGIS Warfighting Improvement Program which lies at the core of the backfit modernization plans for Ticonderoga class cruisers. The AEGIS WIP involves the backfit modernization of Baseline 1 (CG 47-51), and Baseline 2 (CG 52-53) cruisers.

WIP upgrades include: B/L 1: SPY-1A ordalts, UYK-44 computer upgrade, SM-2 BLOCK III integration, LAMPS MK III for CG 47-48, SLQ-32 upgrade, JTIDS/C2P, and TACTAS ASW upgrades. B/L 2: changeout of UYK-7 to UYK-43 computers, UYA-4 to UYQ-21 displays, SPY-1A ordalts, TACTAS in CG 52-53, CIMS upgrades, JTIDS/C2P, and HARPOON WSG-1A integration.

A major part of this effort involves retest after each of the changes are made to ensure that combat system integrity is maintained and that no regression in the performance of other combat system areas are caused by the implementation of the changes. Testing and integration are a major part of the WIP Engineering effort.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$ UNITS	\$ UNITS	\$ UNITS	\$ UNITS
Total Funding	27,831	41,590	75,557	85,436
1. Op Cycle Integration Workyears	9,273	11,200	20,748	20,961
2. Combat System In-Service Engineering/Tech Assists	7,678	9,100	17,046	18,076
3. Ship Systems (HM&E) In-Service Engineering/Tech. Assists	1,840	3,200	4,773	4,711
4. Follow on Test and Evaluation/Ship Days of Test Support	0	1,000	0	4,807

7 0244

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
5. AEGIS Combat System Life Spt. Engineering	9,040	17,090	21,351	23,300
6. AEGIS Warfighting Improvement Program Engineering	0	0	11,639	11,351
7. Cooperative Engagement Engineering	0	0	0	2,230

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

ADDENDUM: Additional Explanation

1. AEGIS OP Cycle Integration

The funding requirement necessary to provide Op Cycle Integration for AEGIS ships has been determined based on the following performance criteria:

- 1) The number of scheduled availabilities.
- 2) The number of operational AEGIS ships at sea that require a level of support (i.e. Configuration Management, Weapon System File Download) which can not be directly tied to scheduled availabilities.

The basic relationship for determining the requirement for OP Cycle Integration is approximated by the formula:

$$\text{TOTAL \$ REQUIREMENT} = [(\$ \text{ TO SUPPORT AVAILABILITIES}) + (\$ \text{ TO SUPPORT IN SERVICE SHIPS})]$$

The number of scheduled AEGIS availabilities are as follows:

FY	89	90	91	92	93	94
SRAs	4	7	5	6	8	12
ROHs	0	0	0	1	2	2

The number of operational ships at sea that will require support are as follows:

	89	90	91
SHIPS IN THE FLEET	14	17	21

The Planning effort spends out in following profile:

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

ROH 4 X $[.1(A-3)+.4(A-2)+.3(A-1)+.2(A)]$ = Equivalent Units

SRA 1 X $[.1(A-3)+.4(A-2)+.3(A-1)+.2(A)]$ = Equivalent Units

X = Cost per SRA.

A = Fiscal Year of availability.

The size and complexity of an ROH has been determined as requiring four times as much planning effort than that required to support an SRA. X equals the cost to support one SRA and is estimated to be \$1.717 million which includes all logistic and material support (other than the FMP) required to execute compressed, intense availabilities. 10% of the funds to support an availability are required 3 years prior to an availability (A-3), 40% are required two years in advance (A-2), 30% are required one year in advance (A-1), and 20% of the funds are required in the same year (A) as the availability is executed.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Based on these assumptions the following OP Cycle Integration requirements can be determined:

YEAR	FY 1989	FY 1990	FY 1991
	SRAs		
A	.8	1.4	1.0
A-1	2.1	1.5	1.8
A-2	2.0	2.4	3.2
A-3	.6	.8	1.2
	ROHs		
A-1	0	0	1.2
A-2	0	1.6	3.2
A-3	.4	.8	.8
TOTAL LEVEL OF EFFORT REQUIRED	5.9	8.5	12.4

These units of measure, multiplied by a standard cost of \$1.717 million, yield the following dollar cost to provide availability related support:

	FY 1989	FY 1990	FY 1991
	\$10.1M	\$15.0M*	\$22.2M* (* includes inflation on the standard cost)

The total requirement to provide Op Cycle Integration is as follows:

FACTOR	FY 1989	FY 1990	FY 1991
AVAILABILITY SUPPORT	\$10.1M	\$15.0M	\$22.2M

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

OPERATIONAL SUPPORT	\$ 5.2M	\$ 6.3M	\$ 7.8M
TOTAL	\$15.3M	\$21.3M	\$30.0M

2. Combat System In Service Engineering (CSISE)

AEGIS Combat System In Service Engineering provides responsive world wide support for CG 47 and DDG 51 class ships for Combat System problems above their organizational capabilities. In addition it provides for readiness assessment of fleet units and incidental material, Preventive Maintenance System/ Combat System Operational Sequencing System (PMS/CSOSS) and logistics support, implementation of combat system changes, and validation of ship and system doctrine. It further provides Combat System engineering support for availabilities and overhauls including those for ships homeported in Japan. In FY 1988 we were funded at \$7.5 million which allowed us to provide minimal essential support to 8 in service ships at \$750 thousand each and 1 SRA at \$1,000 thousand.

The funding requirement necessary to support Combat System ISE has been determined based on the following performance criteria:

- 1) The number of AEGIS ships at sea out of the SCN envelope.
- 2) The requirement to support Combat System changes accomplished during SRAs/ROHs.
- 3) The introduction of the significantly more complex Cruiser Baseline 4 during FY 1991.

This is approximated by the following formula:

$$\text{Combat System ISE} = [(\text{Cost per Hull} \times \# \text{ Ships at Sea}) + (\text{Cost per Avail} \times \# \text{ of Availabilities}) + (\text{Cost of B/L 4 Introduction})]$$

Based on prior experience and reported costs from NSWSES, it costs approximately \$750 thousand per AEGIS Cruiser to provide Combat System In Service Engineering for ships at sea outside of the SCN envelope and \$1,000 thousand to provide In Service Engineering to support availabilities. Also on the basis of past experience, the introduction of a new Combat System Baseline requires an initial higher level of In Service

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Engineering effort, and recognizing that Cruiser Baseline 4 is a significantly more complex baseline than its predecessors, therefore an additional \$1,000 thousand will be required in FY 1991 to support the Fleet introduction of Baseline 4.

The following AEGIS Cruisers will be out of the SCN envelope in the following numbers per year and will require In Service support:

FISCAL YEAR	1989	1990	1991
SHIPS AT SEA (NON SCN)	11	14	17
X \$750K equates to:	\$8.2M	\$10.5M	\$12.7M

The following number of SRAs are scheduled and will require Combat System In Service Engineering:

FISCAL YEAR	1989	1990	1991
SRAs	4	7	5
X \$1,000K equates to:	\$4.0M	\$7.0M	\$5.0M

Based on the above detailed formulas the following requirement to perform Combat System In Service Engineering was determined:

FY 1989 ISE = [(\$750K X 11) + (\$1000K X 4)] = \$12.2M.

FY 1990 ISE = [(\$750K X 14) + (\$1000K X 7)] = \$17.5M.

FY 1991 ISE = [(\$750K X 17) + (\$1000K X 5)] + (\$1000K) = \$18.7M

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

3. Combat System Life Support Engineering (CSLSE)

AEGIS Combat System Life Support Engineering provides proofing of combat system equipments, computer program changes and ordalts in a faithful replication of Baseline 1, 2, and 3. This effort supports the AEGIS Combat System Center (ACSC) at Wallops Island by funding both the operations and maintenance function required to execute Combat System Life Support Engineering (LSE) and provide for Command Support and Tenant agreements. Without these full up facilities, the ability to replicate afloat problems, support the resolution of combat system computer program and equipment anomalies would be lost resulting in the necessity to take a \$1 billion dollar operational Fleet asset off line frequently to resolve these problems.

The funding requirement necessary to provide Combat System Life Support Engineering for AEGIS ships has been determined based on the following performance criteria:

- 1) There are identifiable start-up costs associated with the introduction of each new Combat System Baseline.
- 2) The Operations and Maintenance of the ACSC can be quantified based on the number of Combat System Baselines operational at the ACSC and the number of shifts per day associated with Life Support Engineering for each of these baselines at a unit cost per shift.
- 3) Fixed costs associated with NASA cohabitation irrespective of the number of operational Combat System Baselines or the level of Life Support Engineering performed.

This is approximated by the following formula:

$$\text{C/S LSE} = [(\# \text{ of Introduced C/S Baselines} \times \text{Start Up Costs}) + (\# \text{ of Operational C/S Baselines} \times \text{Number of Shifts} \times \text{Unit Cost Of A Shift}) + (\text{Fixed Cohabitation Costs})]$$

Based on prior experience and reported costs, it costs approximately \$4,300 thousand in start-up costs associated with the introduction of each new Combat System Baseline at the ACSC. These non-recurring start up costs include facility engineering, equipment layout and design tasks to accommodate baseline unique items, as well as trouble shooting and initially higher levels of technical support required to bring each new baseline capability on line. Minor procurement items include items such as switches, cabling, CPU and memory modules 256 switching matrix. and converters required to fully implement baseline unique equipment. Also, on the basis of prior experience and reported costs, it costs approximately \$1,483 thousand per shift per operational baseline for Operations and Maintenance of the ACSC to conduct Life Support Engineering.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).
 There are 3 shifts per day per Baseline.

The following Combat System Baselines will achieve IOC during the following fiscal years at the ACSC:

	<u>FISCAL YEAR</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
B/L 1		1	0	0
B/L 2		1	0	0
B/L 3		0	1	0
B/L 4		0	0	1
TOTAL # OF B/L INTRO		2	1	1

The number of cumulative Combat System Baselines operational at the ACSC by fiscal year:

	<u>FISCAL YEAR</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
OPERATIONAL BASELINES		2	3	4

The following costs of cohabitation with NASA have been identified:

	<u>FISCAL YEAR</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
NASA COSTS		\$3600K	\$4200K	\$4600K

Based on the above detailed formulas the following requirement to perform Combat System Life Support Engineering has been determined:

FY 1989 LSE = $[(\$4300K \times 2) + (\$1483K \times 6) + (\$3600K)] = \$21.0M$

FY 1990 LSE = $[(\$4300K \times 1) + (\$1483K \times 9) + (\$4200K)] = \$21.8M$

FY 1991 LSE = $[(\$4300K \times 1) + (\$1483K \times 12) + (\$4600K)] = \$26.6M$

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

4. AEGIS Warfighting Improvement Program (WIP) Engineering

The funding requirement necessary to perform AEGIS WIP Engineering has been determined based on the following:

- 1) AEGIS WIP Engineering is necessary to implement approved WIP upgrades.
- 2) Engineering must commence early in FY 1990 to support B/L 1 WIP upgrades commencing in FY 1992 and B/L 2 upgrades commencing in FY 1994. B/L 2 Combat System upgrades are significantly more complex than B/L 1 upgrades and require a long term engineering effort to fold back forward fit capabilities.

The following is a detailed breakout of requirements drivers:

<u>FISCAL YEAR OF INSTAL.</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
SPY 1 ORDALTS (B/L 1 & 2)		*	**	***	
UYK 43/UYQ 21 BACKFIT (B/L 2)					CG-52

The following is a detailed breakout of requirement funding:

<u>ENGINEERING ELEMENT</u>	<u>FY 1990</u>	<u>FY 1991</u>
B/L 1 SPY ORDALTS	3.0	3.0
ENGINEERING DESIGN EFFORT BACKFIT UYK 43/UYQ 21 SYSTEM INTO B/L 2 SHIPS: 4 YEAR EFFORT NEEDED TO MEET FY 1994 INSTALLATION.	8.0	8.0

FACILITIES

TEST SITE INSTALLATION 0.2

7 0253

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

TEST/RETRIAL

TEST SITE TEST	0.1	0.1	0.1
PRIOR ALT INSTALLATION TESTS	0.6	0.7	0.7
TOTAL REQUIREMENTS (in millions)	11.9	11.8	11.8

	<u>FY 1992*</u>	<u>FY 1993**</u>	<u>FY 1994***</u>
SPY 1A ORDALTS	CG-47 ROH	CG-49 ROH	CG-55 SRA
CG 47-58	CG-48 SRA	CG-51 SRA	CG-56 SRA
B/L 1 & 2	CG-50 SRA	CG-53 SRA	
	CG-52 SRA	CG-54 SRA	
	CG-57 SRA		
	CG-58 SRA		

UYK 43/UYQ 21 BACKFIT
 CG 52-58
 B/L 2

FY 1994
 CG-52 ROH

5. H,M&E IN-SERVICE ENGINEERING

The funding requirement necessary to support H,M&E ISE has been determined based on the following performance criteria:

- 1) The number of AEGIS ships at sea.
- 2) The requirement to support H,M&E upgrades accomplished during SRAs/ROHs.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

- 3) The introduction of the DDG 51 class which will require an increased level of ISE support for the unique Collective Protection System and Machinery Control System.

This is approximated by the following formula:

$$H, M\&E \text{ ISE } \$ = [(\text{COST PER HULL X \# OF SHIPS AT SEA}) + (\text{COST PER AVAIL X \# OF AVAILABILITIES}) + (\text{UNIQUE DDG 51 ASSOCIATED COSTS})].$$

Based on prior experience and reported costs from NAVSSES, it costs approximately \$200 thousand per ship to provide H, M&E ISE for ships at sea outside of the SCN envelope and \$250 thousand to provide H, M&E ISE in support of availabilities. NAVSSES further estimates that there will be an additional requirement of approximately \$400 thousand per year beginning in FY 1990 to provide In-Service Engineering for the DDG 51 unique Collective Protection System and Machinery Control System.

The following AEGIS ships will be out of the SCN envelope in the following numbers per year and will require In-Service Engineering support:

FISCAL YEAR	1989	1990	1991
SHIPS AT SEA (NON SCN)	11	14	17

The following number of SRAs are scheduled and will require In-Service Engineering support:

FISCAL YEAR	1989	1990	1991
SRAs	4	7	5
			7 0255

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Based on the above detailed formulas the following requirement to perform H,M&E In-Service Engineering was determined:

FY 1989 ISE \$ = [(\$200K X 11) + (\$250K X 4)] = \$3.2M

FY 1990 ISE \$ = [(\$200K X 14) + (\$250K X 7) + (\$400K)] = \$4.9M

FY 1991 ISE \$ = [(\$200K X 17) + (\$250K X 5) + (\$400K)] = \$5.0M

6. FOLLOW ON TESTING AND EVALUATION

Follow-on Testing and Evaluation is required for lead ships of AEGIS Combat System Baselines as well as for the Fleet introduction of new ship classes. Testing and Evaluation is planned for all new system additions and modifications accomplished for equipments and computer programs that may affect ship performance in the Fleet. Funding is required for range services, aircraft services, and technical support.

The funding requirement necessary to perform FOT&E has been determined based on the following historical performance criteria:

- 1) FOT&E required to support the introduction of a new ship class is approximately four times as complex as that required to support the introduction of a new Baseline.
- 2) Range Services account for approximately 40% of the cost of FOT&E, Aircraft Services account for approximately 35% of the cost, and technical support (i.e., data reduction, test equipment modifications) accounts for 25% of the cost of FOT&E.

This is approximated by the following formulas:

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

BASELINE
 INTRODUCTION \$ = [(COST OF RANGE SVCS) + (COST OF AIRCRAFT SVCS)
 + (COST OF TECH SVCS)]

CLASS
 INTRODUCTION \$ = 4 X [(COST OF RANGE SVCS) +
 (COST OF AIRCRAFT SVCS) +
 (COST OF TECH SVCS)]

Based on prior experience and reported costs from NSWSES and the AEGIS Combat System Center, it costs approximately \$400 thousand for Range Services in support of the introduction of a Baseline. \$350 thousand is required for Aircraft Services in support of the same effort, and \$250 thousand is required in technical support of these efforts.

The following ships will require FOT&E during FY 1989-1991:

REQUIREMENT	FY 1989	FY 1990	FY 1991
CLASS INTRODUCTION	-	-	DDG-51
BASELINE INTRODUCTION	CG-59	-	CG-65

Based on the above detailed formulas the following requirement to perform Follow-On Test and Evaluation has been determined:

FY 1989 FOT&E \$ = [((\$400K) + (\$350K) + (\$250K))] = \$1.0M
 FY 1991 FOT&E \$ = (4+1) X [((\$400K) + (\$350K) + (\$250K))] = \$5.0M

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

H. AVIATION ASW MAINTENANCE SUPPORT

The mobile ASW Target program provides training exercise capability for all torpedoes fired actively or passively including Torpedo MK 48, sonars, sonobuoys, and Magnetic Anomaly Detection (MAD) equipped aircraft. The aviation maintenance program provides for direct maintenance support for fleet torpedo firings required for ASW fleet exercises. In addition, it provides for maintenance support for CV ASW Module.

The units used in the performance criteria are the number of runs the Target program supports and for the CV-ASW Module program the number of modules being supported.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$ UNITS	\$ UNITS	\$ UNITS	\$ UNITS
Total Funding	925	727	689	659
1. Target Spt	813	1,931	651	1,061
2. CV/ASW Module Spt	112	18	76	18
				0

I. NSSP MAINTENANCE SUPPORT

Provides for the centralized planning and programming of maintenance efforts for the lifetime of the Navy's Standard Signal Processors (NSSP): the AN/UYS-1 Advanced Signal Processor (ASP) and the AN/UYS-2 Enhanced Modular Signal Processor (EMSP). Efforts funded include the establishment of in-house engineering expertise; preparation, review, and revision of technical manuals; and support of integrated logistics support and field engineering. Currently, the AN/UYS-1 is in service in 16 platforms and weapons systems, ground applications, and trainers. The AN/UYS-2 began fleet deliveries in FY 1987.

Activity Group: Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding / WY'S	6,903	50	5,640	46	5,781	45	5,169	38
In Service Systems		1,212		1,413		1,613		1,813
Program Planning Support	899		521		616		564	
Engineering & Maint. Support	4,129		3,936		3,798		3,644	
Technical Documentation & Engineering Data	1,875		1,183		1,367		961	

Activity Group: Maintenance Support (continued)
Claimant: Naval Sea Systems Command

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>	<u>2</u>	<u>304</u>	<u>304</u>	<u>304</u>
Officer	2	21	21	21
Enlisted	0	283	283	283
B. <u>Civilian</u>	<u>53</u>	<u>61</u>	<u>72</u>	<u>72</u>
USDH	53	61	72	72

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

Activity Group: Procurement Operations
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

Procurement operations provides for centralized procurement and contract administration services and technical services in support of the design, acquisition, construction, overhaul, repair, and alteration of ships and shipboard weapons.

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		
PROJECT MANAGEMENT OFFICES	56,157	51,100	51,100	51,591	63,256	80,631
CONTRACT ADMIN OPS	184,940	186,316	185,959	187,493	211,312	216,937
SHIPBUILDING SCHED OFFICE	2,022	2,178	2,147	2,033	2,433	2,490
THEATRE NUC WARFARE	851	1,301	1,281	1,321	3,886	6,244
Total, PROCUREMENT OPS	243,970	240,895	240,487	242,438	280,887	306,302

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$ 242,438
2. Pricing Adjustments		6,379
A. Annualization of FY 1989 Direct Pay Raises	(2,764)	
1) Classified	2,021	
2) Wage Board	743	
C. FY 1990 Direct Pay Raises	(2,903)	
1) Classified	2,333	
2) Wage Board	570	
D. Industrial Fund Rates	(178)	
E. Other Pricing Adjustments	(534)	
3. Functional Transfers		30,278
A. Transfers-In	(30,313)	
1) Intra-Appropriation	10,954	

a) CONTRACTOR SUPPORT CONVERSION - Transfer of resources from other 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 work-years and end strength are increased 122 and 209 respectively. The increases for salaries and support are \$7,049 and \$3,905 respectively.

Activity Group: Procurement Operations (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

b) TRANSFER OF SUPSHIPS DESIGN ENGINEERING REIMBURSABLE 19,359
FUNDING - This adjustment reflects the transfer of resources
for design engineer efforts performed at the SUPSHIPS
activities from reimbursable to direct mission funding.
Design engineering is a direct mission responsibility of
the SUPSHIPS and should not be funded on a reimbursable
basis. This adjustment reflects the transfer of
resources from reimbursable customers for this effort
to SUPSHIP direct mission funding. This adjustment does
not represent any increase in efforts from that
performed in previous years. The transfer includes 188
end strength and 188 workyears for Design Service
Allocation, Restrictive Availabilities/Technical
Availabilities (RATA), and the SUPSHIP Boston expanded
planning yard function from reimbursable to SUPSHIP
management. The salaries and support increases are
\$9,776 and \$9,583 respectively.

B. Transfers-Out

(-35)

1) Intra-Appropriation

a) TRANSFER OF SUPPLY REIMBURSABLE FUNDING -

-35

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 reimbursably. 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 in efforts
from that performed in previous years.

4. Program Increases

7 0263

5,126

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

A. Other Program Growth in FY 1990	(	5,126)
1) PROJECT MANAGEMENT OFFICES - Increase reflects average grade salary adjustment (7), more realistic execution of requirements in travel (80), and maintenance of government-owned equipment (38) for Headquarters personnel.		125
2) CONTRACT ADMINISTRATION OPERATIONS - Increase reflects 7 additional workyears for contract administration in support of 1,453 additional procurement actions processed for NAVPROs (287) additional NAVPRO personnel support such as training, travel, microfiche services, printing and reproduction (20); increased workload at the AEGIS shipbuilding sites due to one additional procurement action, one additional contract award and nine additional post-contract awards (365), an average grade salary adjustment for SUPSHIPS (258), and an additional 47 workyears for new construction and repair at SUPSHIPS (1,319).		2,249
3) SHIPBUILDING SCHEDULE OFFICE - Increase reflects more intensive studies of government facilities and capacities related to mobilization planning, as well as additional data collection and analysis. These studies are frequently used in assessing the feasibility of new ship construction projects and legislation from Congress, as well as in identifying manufacturing capability shortfalls.		235
4) THEATRE NUCLEAR WARFARE - Increase reflects emphasis on the action to detail test plans for EMPRESS II, which attains Initial Operational Capability (IOC) in FY 1990, as well as funding for the operation and support of the EMPRESS II barge during testing (1,700). Additional funding is provided for operation, maintenance, and consumables for one data acquisition and processing (DAAPS) mobile van used on-board ships to collect and process data as tests are conducted (500), for survivability assessments (143), and for increased development of EMP standards (174).		2,517

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

5. Program Decreases			-3,334
A. Other Program Decreases in FY 1990	(	-3,334)	
1) PROJECT MANAGEMENT OFFICES			
a) Realignment			
i) Realignment of Command travel which is in support of programs from centrally managed accounts to appropriate program lines.			-98
b) Decrease reflects 9 fewer workyears in support of ship acquisition and logistics efforts (-466) and other support (-17).			-483
2) CONTRACT ADMINISTRATION OPERATIONS - Decrease reflects average grade salary adjustment for NAVPROs (-4) and reduced SUPSHIP general administrative support for training, transportation of material, storage of household goods, legal services, lease of spaces, equipment maintenance, equipment purchases, long distance phone services, printing and reproduction services, and supplies and consumables (-2,749).			-2,753
6. FY 1990 President's Budget Request		\$	280,887
7. Pricing Adjustments			6,510
A. Annualization of FY 1990 Direct Pay Raises	(	1,074)	
1) Classified		913	
2) Wage Board		161	
B. FY 1991 Direct Pay Raises	(	4,479)	
1) Classified		3,730	
2) Wage Board		749	
C. Industrial Fund Rates	(	107)	
D. Other Pricing Adjustments	(	850)	
8. Program Increases			19,754

7 0265

Activity Group: Procurement Operations (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

A. Other Program Growth in FY 1991	(	19,754)
1) CONTRACTOR SUPPORT CONVERSION - Increase reflects the FY 1991 effect of the transfer of the resources from other 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 220 and 238 respectively. The increases for salaries and support are \$10,410 and \$5,240 respectively.		15,650
2) PROJECT MANAGEMENT OFFICES - Increase reflects adjustment for one additional day in the pay year (193), one additional workyear in support of ship acquisition and logistics efforts (53), an average grade salary adjustment (25); more realistic execution of requirements for equipment/furniture (16) and maintenance of government owned equipment (46) for Headquarters personnel.		333
3) CONTRACT ADMINISTRATION OPERATION - Increase reflects adjustment for one additional day in the pay year (815); 6 additional workyears for contract administration in support of 146 additional procurement actions processed and 23 additional contracts awarded (above \$25K) for NAVPROs (230); average grade salary adjustment at the SUPSHIPS (324); and additional on-site AEGIS ship technical representation requirements as more AEGIS ships are delivered to the fleet (62).		1,431
4) THEATRE NUCLEAR WARFARE - Increase reflects full year operations of EMPRESS II (1,138) and maintenance and repairs supporting two tests in FY 1991, as well as additional		2,340

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

replenishment spares and environmental studies. Additional funds are required for the operation and maintenance of two more Data Acquisition and Processing vans (1,200) and increased survivability and program support (2).

9. Program Decreases

-849

A. Other Program Decreases in FY 1991

(-849)
 -91

1) PROJECT MANAGEMENT OFFICES - Decrease reflects reduced travel (-42) and other support (-49) for Headquarters personnel.

2) CONTRACT ADMINISTRATION OPERATION - Decrease reflects average grade salary adjustment at the NAVPROs (-129), reduced NAVPRO personnel support such as training, travel, microfiche services, printing and reproduction (-13); and reduced SUPSHIP general and administrative support for training, transportation of material, storage of household goods, legal services, lease of spaces, equipment maintenance, equipment purchases, long distance phone service, printing and reproduction services, and supplies and consumables (-583).

-725

3) SHIPBUILDING SCHEDULE OFFICE - Decrease reflects 1 less study in support of source selections, Pre-Award Surveys, and on-site shipbuilding progress assessments.

-33

10. FY 1991 President's Budget Request

\$ 306,302

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

A. PROJECT MANAGEMENT OFFICES

Project Management Offices are responsible for integration and coordination of major ship and weapon system acquisition projects. This program provides salaries, benefits, and administrative support costs for engineers and administrative personnel in these offices. Automated Data Processing (ADP) Equipment consists of purchase and maintenance of equipment and software for Headquarters staff. Other support includes travel, printing and reproduction, furniture/equipment, supplies, and purchased services.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
	\$	\$	\$	\$
Total Funding	56,157	51,591	63,256	80,631
Total Workyears	1,066	979	1,092	1,313
Civilian Salaries	53,656	49,645	57,344	69,259
ADP Equipment	386	582	640	705
Other Support	2,115	1,364	5,272	10,667

B. CONTRACT ADMINISTRATION OPERATIONS

Provides contract administration support at various activity sites. Responsibilities include quality assurance, engineering design review, industrial management, systems integration and problem resolution as well as other areas of contract administration. The Supervisors of Shipbuilding, Conversion and Repair (SUPSHIPS) provides salaries and associated personnel support costs for SUPSHIPS personnel who are responsible for insuring that private contractors meet government specification requirements in the construction, repair and alteration of naval ships. They administer Navy department and other defense department shipbuilding, design, conversion and facility contracts at private shipyards. SUPSHIPS are also involved in procuring and administering overhaul, repairs, alterations and inactivations performed on naval ships at private yards under master ship repair contracts. The NAVPROS ensure that weapon systems manufacturers conform to contractual requirements. AEGIS Ship Procurement Support provides unique on-site technical functions not provided for CG-47 and DDG-51 Class ships by resident SUPSHIP, NAVPRO or Defense Contract Administration Service activities.

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding	184,940		187,493		211,312		216,937	
SUPSHIPS	168,175		171,557		194,272		199,091	
Salaries	151,506 *		159,712		174,759		179,833	
Support	15,492 **		11,845		11,274		10,340	
Pearl Harbor	1,177 **		0		0		0	
Workyears		4,164		4,278		4,513		4,513
Avg salary		36,156		37,223		38,194		39,431
Design Service Allocation					4,696		5,084	
Restricted Availabilities/ Technical Availabilities					3,543		3,834	
TOTAL PROGRESS PAYMENTS (\$Mil)	6,425		6,569		6,581		6,442	
Non-Add		15		15		15		15
# Activity sites		28		28		28		28
# Remote sites								
# Procurement contracts								
awarded		4,317		4,495		4,675		4,862
<\$25K		1,079		1,124		1,169		1,215
>\$25K		3,238		3,371		3,506		3,647
Post contracts actions (000)		4,220		4,430		4,641		4,884
# Scheduled CNO avail's		126		146		150		148
\$ RA/TA					950		1,850	

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
NAVPROs	12,992		11,931		12,536		13,148	
# workyears		321		301		308		314
# procurement actions processed		22,690		21,986		23,439		23,585
# contracts awarded (above \$25K)		1,520		1,607		1,587		1,610
# activity sites		4		4		4		4
Post-Contract Award Actions								
# quality assurance inspections		240,392		284,536		249,653		253,219
# engineering change proposals		4,815		5,247		5,187		5,187
# contract mods		3,347		3,542		3,335		3,345
AEGIS Ship Proc. Spt.	3,773		4,005		4,504		4,698	
# procurement actions		5		5		6		6
# contract awards		3		3		4		4
# post contract awards		44		44		53		57

*Does not include \$1.9M for overtime

**One half year funded through shipyard

C. SHIPBUILDING SUPPORT OFFICE

The NAVSEA Shipbuilding Support Office (NAVSHIPSO) supports all Ship Acquisition Project Managers (SHAPMs) by conducting advance planning, monitoring the delivery of shipbuilding components and materials, and assisting in the acquisition and major repair source selections. This office also maintains the Naval Vessel Register and the Ship's Data Book for the Department of the Navy. This is a two-volume publication which contains the names,

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

characteristics, assignments and disposition of all the Ships and Service Craft in the Active Fleet, Reserve Fleet, Inactive Fleet, Military Sealift Command and the U.S. Army vessels.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>
	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>
Total Funding	2,022	2,033	2,433	2,490
Acquisition Assessment Spt (# of Studies)	658	692	749	748
(# of Manyears)	23	23	27	27

D. THEATER NUCLEAR WARFARE

The Theater Nuclear Warfare Program is the Navy focal point for the development of tactical nuclear weapons and ensuring the survivability of fleet assets in a nuclear environment. Weapons development efforts which include life cycle support require detailed coordination with other Department of Defense and federal agencies, notably the Department of Energy. Survivability efforts entail assessing the vulnerability of fleet systems to nuclear effects and developing hardening techniques, including in FY 1989 the development of Electromagnetic Pulse (EMP) standards and specifications for all phases of a Command, Control, and Communication (C3) systems life through total in-service use. FY 1990 reflects the initial funding requirements for the operation and maintenance of the electromagnetic pulse radiation environmental simulator for ships (EMPRESS II) undergoing testing.

Activity Group: Procurement Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>
	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>
Total Funding	851	1,321	3,886	6,244
1. Program Support	210	250	250	300
2. EMPRESS II			1,700	1 2,900
3. DAAPS Mobile Vans			500	1 1,600
4. Survivability	641	971	1,117	1,119
Nuc Effects Doc Dev		2	2	2
Hardening Suppt Efforts		2	2	2
Systems Test Prep		2	2	2
5. C2 EMP Standards		100	2 319	2 325

Activity Group: Procurement Operations (continued)
Claimant: Naval Sea Systems Command

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>	<u>667</u>	<u>609</u>	<u>605</u>	<u>604</u>
Officer	416	362	356	356
Enlisted	251	247	249	248
B. <u>Civilian</u>	<u>5,522</u>	<u>5,684</u>	<u>6,095</u>	<u>6,333</u>
USDH	5,522	5,684	6,095	6,333

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

Activity Group: Command and Administration
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

This program provides salaries and administrative support for Naval Sea Systems Command headquarters personnel who provide technical direction and management for acquiring and supporting ships, weapons systems, and related equipment.

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
COMMAND AND ADMIN	30,357	31,313	31,313	25,104	25,396	26,275
Total, COMMAND AND ADMIN	30,357	31,313	31,313	25,104	25,396	26,275

Activity Group: Command and Administration (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$ 25,104
2. Pricing Adjustments		690
A. Annualization of FY 1989 Direct Pay Raises	(133)	
1) Classified	133	
B. FY 1990 Direct Pay Raises	(436)	
1) Classified	433	
2) Wage Board	3	
C. Other Pricing Adjustments	(121)	
3. Program Increases		14
A. Other Program Growth in FY 1990	(14)	
1) COMMAND AND ADMINISTRATION - Increase reflects an increase in the maintenance of government-owned equipment.	14	
4. Program Decreases		-412
A. Other Program Decreases in FY 1990	(-412)	
1) COMMAND AND ADMINISTRATION		
a) Realignment		
i) Realignment of Command travel which is in support of programs from centrally managed accounts to appropriate program lines.	-13	
b) Decrease reflects reduced support to ship and weapon systems resulting in 5 fewer workyears (-219), an average grade salary adjustment (-151); and reduced purchased services and supplies (-29) for Headquarters personnel.	-399	

Activity Group: Command and Administration (continued)
 Claimant: Naval Sea Systems Command

8. Reconciliation of Increases and Decreases (continued)

5. FY 1990 President's Budget Request		\$ 25,396
6. Pricing Adjustments		877
A. Annualization of FY 1990 Direct Pay Raises	(	176)
1) Classified		174
2) Wage Board		2
B. FY 1991 Direct Pay Raises	(	592)
1) Classified		588
2) Wage Board		4
C. Other Pricing Adjustments	(	109)
7. Program Increases		114
A. Other Program Growth in FY 1991	(	114)
1) COMMAND AND ADMINISTRATION - Increase reflects an adjustment for one additional day in the pay year.		114
8. Program Decreases		-112
A. Other Program Decreases in FY 1991	(	-112)
1) COMMAND AND ADMINISTRATION - Decrease reflects an average grade salary adjustment (-100) and reduced printing, supplies, and other support (-12) for Headquarters personnel.		-112
9. FY 1991 President's Budget Request		\$ 26,275

Activity Group: Command and Administration (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

COMMAND AND ADMINISTRATION

This program provides salaries, benefits, and administrative support costs for Naval Sea Systems Command (NAVSEA) Headquarters staff responsible for policy, planning, technical guidance, resource allocation, management and support of NAVSEA operations. Automated Data Processing (ADP) equipment consists of purchase and maintenance of equipment and software for Headquarters staff. Other support includes personnel training, travel, printing and reproduction, furniture/equipment, supplies, and purchased services.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
	\$	\$	\$	\$
Total Funding	30,357	25,104	25,396	26,275
Workyears	596	492	487	487
Civilian Salaries	24,898	20,717	20,916	21,698
ADP Equipment	882	998	1,046	1,078
Other Support	4,577	3,389	3,434	3,499

Activity Group: Command and Administration (continued)
 Claimant: Naval Sea Systems Command

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>	37	44	43	43
Officer	28	34	33	33
Enlisted	9	10	10	10
B. <u>Civilian</u>	500	500	500	500
USDH	500	500	500	500

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

Activity Group: Field Operations
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

Field operations provides the salaries and operating costs for a variety of support functions at Naval shore activities. Typical support functions include design and development of computer software for shore activities, engineering and administrative services for major weapons systems and shipboard equipment, and overhaul planning. In FY 1990 the Planning and Engineering for Repair and Alterations (PERAs) detachments and the Submarine Maintenance Engineering Planning and Procurement (SUBMEPP) detachment transfer to Budget Activity 2.

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	Budget Request	Budget Request
OPERATIONAL SUPPORT FIELD	153,803	142,251	142,251	156,735	162,903	180,975		
NAVSEA FIELD DIVISIONS	16,274	14,111	14,042	16,124	15,450	15,914		
INTEG COMBAT SYS TEST FACIL	4,614	3,153	3,102	4,575	4,593	4,630		
PERA CV	2,656	2,432	2,414	2,379	0	0		
SUBMEPP	6,550	6,381	6,326	6,206	0	0		
PERA CRUDES/CSS/ASC	7,503	7,255	7,212	7,125	0	0		
CONS CIV PERS OFFICE	9,482	9,375	9,340	9,850	10,076	9,997		
Total, FIELD OPERATIONS	200,882	184,958	184,687	202,994	193,022	211,516		

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$ 202,994
2. Pricing Adjustments		4,784
A. Annualization of FY 1989 Direct Pay Raises	(1,792)	
1) Classified	1,787	
2) Wage Board	5	
B. FY 1990 Direct Pay Raises	(2,162)	
1) Classified	2,158	
2) Wage Board	4	
C. Stock Fund	(2)	
1) Non-Fuel	2	
D. Industrial Fund Rates	(68)	
E. Other Pricing Adjustments	(760)	
3. Functional Program Transfers		-15,626
A. Transfers In		
1) Intra-Appropriation	(3,846)	
a) CONTRACTOR SUPPORT CONVERSION - Transfer of resources from other 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 78 and 133 respectively. The increases for salaries and support are \$2,066 and \$1,780 respectively.	3,846	

Activity Group: Field Operations (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

B. Transfers Out	(-19,472)
1) Intra-Appropriation	
a) STANDARD LEVEL USER CHARGE (SLUC) - SLUC funds to rent commercially leased space realigned to Budget Activity 9, Base Operations Support, for direct payment to General Services Administration Federal Building Fund.	-129
b) OPERATIONAL SUPPORT-FIELD - Transfer of Remote Sensors physical security functions to Naval Security and Investigative Command (COMNAVSECINVCOM) resulting in three fewer workyears and three fewer end strength.	-178
c) PERA CV - The transfer of the planning and Engineering for Repairs and Alterations (PERAs) program for the NAVSEA carrier detachment at Bremerton, WA to the Naval Sea Systems Command, Budget Activity 2, is consistent with Department-wide budget and funding policy that consolidates efforts that are management support for ship availabilities. This transfer involves salaries and benefits for 26 workyears and 26 end strength (-1,231) and other costs (-1,591).	-2,822
d) SUBMEPP - The transfer of the Planning and Engineering for Repairs and Alterations (PERAs) program for the NAVSEA Submarine Maintenance Engineering Planning and Procurement detachment at Portsmouth, NH to the Naval Sea Systems Command, Budget Activity 2, is consistent with Department-wide budget and funding policy that consolidates efforts that are management support for ship availabilities. This transfer involves salaries and benefits for 65 workyears and 66 end strength (-2,486) and other costs (-6,098).	-8,584
e) PERA CRUDES/CSS/ASC - The transfer of the Planning and Engineering for Repairs and Alterations (PERAs) program for the NAVSEA Cruiser/Destroyer detachment at Philadelphia, PA, the NAVSEA Auxiliary Service Craft (ASC) detachment at Norfolk, VA, and the NAVSEA Combat Service Craft (CSS) detachment at San Francisco, CA	-7,759

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

to the Naval Sea Systems Command, Budget Activity 2, is consistent with Department-wide budget and funding policy that consolidates efforts that are management support for ship availabilities. This transfer involves salaries and benefits for 103 workyears and 104 end strength (-4,261) and other costs (-3,498).

4. Program Increases

A. Other Program Growth in FY 1990

1) OPERATIONAL SUPPORT FIELD - Increase reflects average grade salary adjustment (324) and more realistic expectation of requirements in other support (14).

(4,017)

338

339

4

384

2,295

4,017

338

339

4

384

2,295

4,017

338

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4

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2,295

4,017

338

339

4

384

2,295

4,017

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339

4

384

2,295

4,017

338

339

4

Activity Group: Field Operations (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

additional analysis such as equipment refurbish/discard/replace decisions and cost benefit analysis of alter/do not alter situations (521). Modernization Planning/Test increases due to preparation of baseline work packages for fiscal years 1991 and 1992 which contain more overhauls and thus more work packages. FY 1990 also marks the full startup of the Depot Modernization Program (DMP) which is to reduce availability time by providing more intensive management efforts. Regular overhauls will be more intensive in FY 1990 than in FY 1989; physical testing of submarines for depth certifications also increase with increasing availabilities (105). The Submarine Ready Resource Program returns inventory to levels realized in pre-FY 1987 thus incurring management costs. The program salvages, inventories, and catalogs unused non-stock item parts and makes them available free of charge to submarines and labs in need of them. The SUBMEPP management control system is expected in the future to reduce program dollar growth while allowing continued inventory expansion (496).
6) PERA CRUDES/CSS/ASC - Increase reflects additional ADP support for new and existing programs at PERA CRUDES (514); average grade salary adjustment at PERA CSS (17) and integration of Shipalts into the Availability Work Package to avoid duplicate repairs and alterations (126).

657

5. Program Decreases

-3,147

A. Other Program Decreases in FY 1990

1) OPERATIONAL SUPPORT - FIELD

(-3,147)

a) Realignment

- i) Realignment of Command travel which is in support of programs from centrally managed accounts to appropriate program lines.

-91

- b) Decrease reflects reduced weapons acquisition

-1,195

7 0283

T

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

logistic support, resulting in 23 fewer workyears (-1,164), and reduced maintenance of government-owned equipment for Headquarters Personnel (-31).	-364	
2) CONSOLIDATED CIVILIAN PERSONNEL OFFICE - CRYSTAL CITY (CCPO-CC) - Decrease reflects average grade salary adjustment (-1) and 9 fewer workyears and 17 fewer endstrength as a result of less support for CCPO-CC position classification and automation support (-363).		
3) NAVSEA FIELD DIVISIONS - Decrease reflects less logistics engineering support of HM&E and electrical systems resulting in 4 less workyears at the Logistics Activity (-164), less direct fleet technical support for new systems, resulting in 14 less workyears at the SEA Centers (-527) and reduced personnel support (-371).	-1,062	
4) INTEGRATED COMBAT SYSTEMS TEST FACILITIES (ICSTF) - Decrease reflects reduced computer program support (-67) and 1 less workyear of support (-44).	-111	
5) PERA CV - Decrease reflects average grade salary adjustment.	-11	
6) SUBMEPP - Decrease reflects loss of 3 workyears in support of Planning and Engineering for Repairs and Alterations (-72) and average grade salary adjustment (-36).	-108	
7) PERA CRUDES/CSS/ASC - Decrease reflects 3 less workyears for Planning and Engineering for Repairs and Alterations (-125) and average grade salary adjustment (-13) at PERA CRUDES; 1 less workyear in support Planning and Engineering for Repairs and Alterations at PERA CSS (-40) and an average grade salary adjustment at PERA ASC (-27).	-205	
		\$ 193,022

6. FY 1990 President's Budget Request

7. Pricing Adjustments

A. Annualization of FY 1990 Direct Pay Raises	(811)	4,624
1) Classified	811	

7 0284

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

B. FY 1991 Direct Pay Raises	(	3,249)	
1) Classified		3,245	
2) Wage Board		4	
C. Stock Fund	(	10)	
1) Non-Fuel		10	
D. Industrial Fund Rates	(	17)	
E. Other Pricing Adjustments	(	537)	
8. Program Increases			14,845
A. Other Program Growth in FY 1991	(	14,845)	
1) CONTRACTOR SUPPORT CONVERSION - Increase reflects the FY 1991 effect of the transfer of resources from other 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 190 and 245 respectively. The increases for salaries and support are \$9,019 and \$4,631 respectively.		13,650	
2) OPERATIONAL SUPPORT - FIELD - Increase reflects adjustment for one additional day in the pay year (536) and average grade salary adjustment (222); more realistic expectations of requirements for printing (19) and purchased services (50) and maintenance of government-owned equipment (12).		839	
3) CONSOLIDATED CIVILIAN PERSONNEL OFFICE - CRYSTAL CITY (CCPO-CC) - Increase reflects adjustment for one additional day in the pay year (30) and increased other support (252).		282	
4) NAVSEA FIELD DIVISIONS - Increase reflects adjustment		69	

7 0285

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

for one additional day in the pay year (45), additional support (19), and average grade salary adjustment (5).
 5) INTEGRATED COMBAT SYSTEM TEST FACILITY (ICSTF) - 5
 Increase reflects adjustment for one additional day in the pay year (4) and average grade salary adjustment (1).

9. Program Decreases -975

- A. Other Program Decreases in FY 1991 (-975)
- 1) OPERATIONAL SUPPORT - FIELD - Decrease reflects 2 fewer workyears for weapons acquisition logistic support (-99); reduced travel (-23), supplies (-18), and other support (-88) for Headquarters personnel. -228
 - 2) CONSOLIDATED CIVILIAN PERSONNEL OFFICE - CRYSTAL CITY (CCPO-CC) - Decrease reflects average grade salary adjustment (-16) and 14 fewer workyears and 11 fewer endstrength as a result of less support for CCPO-CC position classification and automation support (-632). -648
 - 3) INTEGRATED COMBAT SYSTEM TEST FACILITY (ICSTF) - Decrease reflects reduced support for system testing and computer programs. -99

10. FY 1991 President's Budget Request \$ 211,516

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

A. OPERATIONAL SUPPORT-FIELD

The program provides basic salaries, benefits, and administrative support costs for personnel responsible for the management of ship and combat systems not assigned to designated project management offices. Tasks performed include contract administration, material management coordination for ship and weapon system integration; acquisition policy and planning development; engineering and technical logistic support; and ship design and maintenance oversight. Automated Data Processing (ADP) Equipment consists of purchase and maintenance of equipment and software for Headquarters staff. Other Support includes travel, printing and reproduction, furniture/equipment, supplies, and purchased services.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	153,803	156,735	162,903	180,975
Workyears	3,023	2,863	2,915	3,105
Civilian Salaries	145,865	148,164	152,515	165,714
ADP Equipment	1,591	2,098	2,138	2,214
Other Support	6,347	6,473	8,250	13,047

B. CONSOLIDATED CIVILIAN PERSONNEL OFFICE - CRYSTAL CITY (CCPO-CC)

The mission of the Consolidated Civilian Personnel Office - Crystal City (CCPO-CC) is to provide the full range of civilian personnel services for Navy components in the National Capital Region including position classification, position management, staffing, performance appraisal systems, employee relations and services, employee assistance and counseling programs and employee development and training programs. In addition, CCPO-CC manages Department of Navy-wide career management programs, initiating and conducting Navy system commands-wide occupational studies and analyses leading to the establishment of formal career programs. CCPO also provides for the development of training requirements and operates the Career Development Institute, which offers acquisition management and other training courses. CCPO-CC maintains liaison with the Systems Commands, Chief of Naval Operations, Office of Personnel Management and other offices on civilian personnel operations policies and procedures. Recruiting efforts include nation-wide campaigns to locate and hire qualified personnel with skills currently in short supply in the National Capital Region.

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Total Funding	\$ 9,482	\$ 9,850	\$ 10,076	\$ 9,997
Workyears	226	222	213	199

Salaries and Benefits 7,141 7,437 7,450 7,040
 Other Services 2,341 2,213 2,626 2,957

C. NAVSEA FIELD DIVISIONS

Funds salaries and support costs of overhead personnel for the Naval Sea Support Centers (SEACENS) and the Naval Sea Systems Command Logistics Support Engineering Activity (NAVSEALOGSUPENGACT). The SEACENS provide technical services to the fleet, such as installation support and operation and maintenance support of ship-board equipment and systems. The Naval Sea Support Centers support all systems which are under the management control of the NAVSEASYSOM. NAVSEALOGSUPENGACT performs engineering and related functions associated with establishing and maintaining effective life-cycle supply support for hull, mechanical, electrical, and selected electronic equipments.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Total Funding	\$ 16,274	\$ 16,124	\$ 15,450	\$ 15,914
Workyears	313	342	324	324

Civ. Pers Salaries 11,813 12,431 12,009 12,358
 Other Support 4,461 3,693 3,441 3,556

D. INTEGRATED COMBAT SYSTEMS TEST FACILITY (ICSTF)

The Integrated Combat System Test Facility, San Diego, provides support for combat system integration, testing and inservice engineering for multiple ship class combat system computer programs. This program supports ship class test teams, assists in evaluation of diagnostic results and problem isolation and

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

provides technical support to headquarters in matters related to combat systems. ICSTF acts as the Simulation Technical Agent for the Standard Simulator System (SSS); manages facilities design, and develops, tests and validates SSS.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
Total Funding	4,614	4,575	4,593	4,630
Workyears	28	28	27	27
=====				
CSIT Lab operations	4,101	3,972	3,990	4,027
User Hours of Testing	13,900	13,400	13,400	13,400
Computer program	513	603	603	603
Support				
Lines of Computer				
Code (000s)	1,467	1,851	1,851	1,851

E. SUBMARINE MAINTENANCE ENGINEERING PLANNING & 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 Extended Operating Cycle (ESEOC). This program transfers to the Naval Sea Systems Command, Budget Activity 2, in FY 1990.

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS	\$	UNITS
Total Funding	6,550	6,206	0	0
Operating Budget	4,869	5,141	0	0
Direct Funded Salaries and Benefits	2,547	2,538	0	0
Workyears: Direct	70	68	0	0
Facilities & Equipment	1,773	1,620	0	0
All Other	549	983	0	0
Reimbursable Program Tasks	1,681	1,065	0	0
Ship Work Planning	578	513	0	0
Maintenance Engineering	373	190	0	0
Modernization Planning/	556	350	0	0
Test Development				
Submarine Ready Resource	174	12	0	0
Material Program				

F. 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. This program transfers to the Naval Sea Systems Command, Budget Activity 2, in FY 1990.

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Surface Ships (\$000)	10,159	9,504	0	0
PERA CRUDES				
Total Funding (\$000)	4,445	4,147	0	0
Operating Budget:				
1. Direct Funded Salaries and Benefits	2,969	2,613	0	0
Work Years Direct	75	62	0	0
2. Facilities, Rent and Equip.	1,091	1,382	0	0
3. All Other	385	152	0	0
Customer Funding, All Sources (non-add)	(21,560)	(24,794)	0	0
PERA CSS/ASC				
Total Funding (\$000)	3,058	2,978	0	0
Operating Budget:				
1. Direct Funded Salaries and Benefits	1,978	1,740	0	0
Work Years: Direct	48	45	0	0

7 0291

Activity Group: Field Operations (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
2. Facilities and equip.	284	370	0	0
3. All Other	796	868	0	0
Customer Funding, All Sources (non-add)	(36,000)	(37,000)	0	0
PERA CV				
Total Funding (\$000)	2,656	2,379	0	0

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Operating Budget:				
1. Direct Funded Salaries and Benefits	1,301	1,211	0	0
Workyears: Direct	32	26	0	0
2. Facilities and equip	442	420	0	0
3. All Other	913	748	0	0
Customer Funding, All Sources (non-add)	(28,000)	(27,000)	0	0

Activity Group: Field Operations (continued)
Claimant: Naval Sea Systems Command

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>	<u>645</u>	<u>648</u>	<u>649</u>	<u>649</u>
Officer	332	311	313	313
Enlisted	313	337	336	336
B. <u>Civilian</u>	<u>3,714</u>	<u>3,665</u>	<u>3,577</u>	<u>3,811</u>
USDH	3,714	3,665	3,577	3,811

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

Activity Group: Logistics Support Activities
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

Programs included in this activity group provide support for fleet and shore station operations in such areas as:

- a. Technical documentation required for ship design and maintenance
- b. Ammunition movement, handling and disposal
- c. Safety of personnel and security of ships, shore stations, and sensitive weapons and material
- d. Equipment inventory control and accounting
- e. Management information systems and ADP support
- f. Underutilized capacity at ordnance stations and shipyards
- g. Salvage operations and diving
- h. Other engineering and technical services in support of Fleet equipments, including surface missile systems, marine gas turbines, and standard embedded computers.

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

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		
SURF WARFARE SYS LOGISTICS	18,303	14,714	14,423	13,691	8,773	8,670
STANDARD EMBEDDED COMP SPT	8,024	6,383	6,251	5,476	6,727	6,159
AMMUNITION SYS LOGISTICS	76,198	57,717	57,658	63,379	71,189	70,771
SAFETY & SECURITY LOGISTICS	21,953	13,801	13,548	16,351	19,532	19,582
SHIP SYSTEMS LOGISTICS	16,801	15,519	15,650	14,936	15,101	13,205
ACQ & LOGISTICS SUPPORT	69,201	44,224	43,260	47,018	51,086	49,970
OTHER LOGISTICS	2,137	1,580	1,558	1,490	1,637	1,633
SURFACE SHIP LOGISTICS	6,936	1,855	1,829	1,732	1,877	1,884
DIVING & SALVAGE LOGISTICS	4,281	4,172	4,125	4,048	4,757	4,739
INACTIVATION OF SHIPS	0	0	0	0	0	0
SHIPYARD MODERNIZATION	5,106	2,669	2,627	2,806	4,780	4,719
DATA SUPPORT	7,855	7,387	7,387	6,786	6,827	6,931
UNDERUTILIZED PLNT CAP	103,742	105,943	105,943	105,943	105,858	108,524
Total, LOGISTICS SPT ACT	340,537	275,964	274,259	283,656	298,144	296,787

7 0295

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$ 283,656
2. Pricing Adjustments		11,243
A. Annualization of FY 1989 Direct Pay Raise	(31)	
1) Classified	31	
B. FY 1990 Direct Pay Raise	(49)	
1) Classified	49	
C. Industrial Fund Rates	(8,646)	
D. Other Pricing Adjustments	(2,517)	
3. Functional Program Transfers		-13,684
A. Transfers Out	(-13,684)	
1) Intra-Appropriation		
a) TRANSFER OF SUPPLY REIMBURSABLE FUNDING - This adjustment reflects the transfer of resources to correct improperly aligned reimbursable workload at the Naval Supply Centers and Ships Part Control Center. Efforts, associated with this adjustment, were being financed reimbursably. However, these efforts are within the mission responsibilities of the Naval Supply Centers and Ships Part 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 in efforts from that performed in previous years.	-1,543	

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

b) REMOTE SENSORS - The Remote Sensors for Physical Security (RSSPS) program now known as the Electronic Security Systems (ESS) program is transferred to the Naval Security and Investigative Command (NAVSECINVCOM) due to the Command's responsibility for Navy-wide Physical Security matters.	-10,690
c) INTEGRATED LOGISTICS SUPPORT TECHNICAL IMPROVEMENT PROGRAM (ILSTIP) - Program responsibility transfers to Naval Supply Systems Command (NAVSUP).	-1,315
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 workforce.	-136
4. Program Increases	33,115
A. Other Program Growth in FY 1990	(33,115)
1) SURFACE WARFARE SYSTEM LOGISTICS - Increase reflects 6 additional workyears with emphasis on reducing the risk of undetected degradation in safety of grenades and demolition explosives, mine and torpedo warheads, Marine Corps ammo and missiles (531); introduction of New Threat Upgrade (NTU) capability with new configuration improvements to fire control systems, weapon systems, and launching systems entering the fleet (109); additional Surface Warfare Journal Support (2); and an additional 85 workyears for installation and centralized management of Intrusion Detection Systems (IDS) for three additional Arms, Ammunition, and Explosives (AA&E) sites, and installation of electronic security systems at two additional Special Ammunition Sites (SAS) (4,706).	5,348
2) STANDARD EMBEDDED COMPUTER SUPPORT - Increase reflects increased Logistics Support for UYK-43	1,208

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

8. Reconciliation of Increases and Decreases (continued)

and 44 computers (967) and increased support for the UYK-20 and 7 (241).	4,650
3) <u>AMMUNITION SYSTEMS LOGISTICS</u> - Increase reflects additional 80 workyears for the Receipt, Segregation, Storage and Issue (RSS&I) of Ammunition required to respond to the Fleet's tempo of operations forecast (4,210) and increase funding for Non-Nuclear Accuracy Inventory Assessment (98). Further, increase supports an additional 5 workyears and 11,300 line items in support of Property Disposal of Ordnance efforts (342).	
4) <u>SAFETY AND SECURITY LOGISTICS</u> - Increase reflects 13 additional workyears for Sensitive Ordnance Inventory to maintain accountability of Arms, Ammunition, and Explosives (AA&E) (999); increased support for Small Arms Management (135); and increased Nuclear Security Installation Support (271). Increases in the safety effort reflects an additional 2.4 workyears for Explosives Safety (218); an additional 11.4 workyears for funding of the Navy's share of support to the Atmospheric Release Advisory Capability (ARAC) (600) as well as additional support for Radiation, Control, and Health (6). Further, increased Nuclear Safety Analysis Support of 3.5 workyears is provided (152).	2,381
5) <u>SHIP SYSTEMS LOGISTICS</u> - The Ship Design Engineering program provides funding for 3 additional Practices updated (100). The Fed/Mil Specifications and Standards program increases due to mandatory reviews of Specifications and Standards at five year intervals (1,106); and an increase in specification standard and type drawings (601).	1,807
6) <u>ACQ & LOGISTICS SUPPORT</u> - Increase in computer peripheral purchases in the Acquisition and Logistics Information and Analysis System (ALIAS) (63), review of an additional 30 Test and Evaluation Master Plans, and 15 additional Operation Evaluation Readiness Reviews (148). Such reviews allow for certification of a system's	14,926

Activity Group: Logistics Support Activities (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

readiness for both Operational Evaluation and of test results prior to the start of production. Increases in the Provisioning, Allowance and Fitting Out Support (FAFOS) program reflect 63 additional new construction supply readiness updates and additional provisioning work years (572). An additional 2.6 million Configuration Data Management (CDM) transactions (7,714) will permit proper repair parts and other logistic support to be provided to ships due to better information in the Weapons Systems File (WSF) and Fleet Integrated Logistics Overhaul (ILO) support will increase 32.4 work years (1,624) resulting in better scheduling, planning and coordination of required information of ILO sites scheduled for ILO conduct. An additional 31 short supply repairables will be removed from 2 SSBN's and 2 MSO's (54) and 23 additional repairable equipments will be preserved at the Naval Sea Systems Command (NAVSEA) consolidated stock points (CSP) (85) and an additional 8 Underway Material Inspections (UMI) will be conducted (53). In the Maintenance and Material Management program 6,537 routine and complex Hull Mechanical and Electrical (HMEC) Technical Feedback Reports (TFBR) will be completed and will eliminate the backlog. These documents update and correct inaccurate maintenance procedures thereby increasing ship readiness (2,521). An additional 17.5 work years of effort for Shipboard non-Tactical ADP (SNAP) (1,481) will allow 57% of the scheduled SNAP software for maintenance to be released. An additional 1.5 work years in the Navy Oil Analysis Program (NOAP) will provide spectrographic analysis for an additional 140 oil samples (208). An increase is also due to an additional 6.2 work years to provide data management interface for ship cost and operations data management interface for ship cost and data users and program managers and to coordinate data extraction and evaluation (403).

7) OTHER LOGISTICS - Increase reflects one additional

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

work year of effort for positioning systems for the increased use of Standard Hardware Acquisition and Reliability (SHARP) modules because of greater demand of SHARP in Navy systems.	195
8) SURFACE SHIP LOGISTICS - Increase provides for additional in-service engineering and technical support for PHM ships.	
9) DIVING AND SALVAGE LOGISTICS - Increase reflects maintenance and parts replacement on Experimental Diving Unit (EDU) hyperbaric facilities for diving safety (448), development and execution of a three-level System Certification Program (70), and additional support for the Fleet Air Sampling Program (57); and additional support for salvage operations (39).	614
10) INDUSTRIAL FACILITIES SUPPORT - Increase reflects additional studies in support of Material Handling, Industrial Improvement, and Asbestos Litigation (492); installation costs for one Range Magnetic Silencing system (438); nine additional floating drydock audits (92); additional management support for landbased drydocks (89) and additional audits on non-nuclear floating drydocks (98) in the drydock certification program; 6 additional nuclear hulls to be maintained including increased inspections, radiation control surveys, and repairs (484); increased procurement of plant equipment (87); one additional workyear of computer support (29); and increased Designated Overhaul Program/Maintenance Interservicing Support Office (DOP/MISO) efforts (86).	1,895
11) DATA SUPPORT - Increase reflects average grade salary adjustment (7) and other support (5).	12
5. Program Decreases	-16,186
A. Other Program Decreases in FY 1990	(-16,186)
1) SHIP SYSTEMS LOGISTICS - Decreases reflect reduction of	-1,871

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

one Computer Aided Engineering program update (-132) and support service for 13 fewer automated engineering users (-106). Decreases are also reflected in reduction of Marine Gas Turbine manufacture Integrated Logistics Support (ILS) information and documentation efforts; Engineering Control System (ECS) design deficiency corrections, product improvement efforts, and engineering training (1,633).
 2) ACQ & LOGISTICS SUPPORT - Reductions reflect decreases in the Naval Sea System Command (NAVSEA) Institute course offerings in Acquisition Management (-190); decreases in the Depot Level Provisioning of Hull, Mechanical and Electrical equipment (-117) and ADP efforts for Outfitting Management systems (-154). Decreases also reflect 15.3 fewer work years of effort for the Ship Configuration and Logistics Support Information System (SCLSIS) management, monitoring and quality analysis system (-905); and fewer full screen breakout reviews (-8,942).
 3) SURFACE SHIP LOGISTICS - Reduced materials management support for PHM class ships.
 4) INDUSTRIAL FACILITIES SUPPORT - Decrease reflects no follow-up certification reviews (FCR) or follow-up recertification reviews (FRR) (-37) and no capacity upgrades/dock transfers (-6) in the drydock certification program.
 5) DATA SUPPORT - Decrease reflects a reduction of 5 direct workyears for systems design at the Automated Data Systems Activity.
 6) UNDERUTILIZED PLANT CAPABILITY - Decrease reflects reduced subsidy to Naval Ordnance Stations (-3,503) and Naval Shipyards (-184).

-10,308

-109

-43

-168

-3,687

\$ 298,144

8,996

6. FY 1990 President's Budget Request

7. Pricing Adjustments

7 0301

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

A.	Annualization of FY 1990 Direct Pay Raise	(	21)	
1)	Classified	(	21)	
B.	FY 1991 Direct Pay Raise	(	77)	
1)	Classified	(	77)	
C.	Industrial Fund Rates	(	6,653)	
D.	Other Pricing Adjustments	(	2,245)	
8.	Program Increases			155
A.	Other Program Growth in FY 1991	(	155)	
1)	ACQ & LOGISTICS SUPPORT - Increase reflects an additional 7 equipments removed (24); and additional ships' cost data management support (4).		28	
2)	DIVING AND SALVAGE LOGISTICS - Increase reflects adjustment for one additional day in the pay year (3), average grade salary adjustment (1), and additional configuration management of diving equipment (32).		36	
3)	DATA SUPPORT - Increase reflects average grade salary adjustment (3), adjustment for one additional day in the pay year (11), and support to cover various Headquarters ADP requirements, including timesharing (77).		91	
9.	Program Decreases			-10,508
A.	Other Program Decreases in FY 1991	(	-10,508)	
1)	CONTRACTOR SUPPORT CONVERSION - Decrease reflects the FY 1991 effect of the transfer of resources to other 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		-500	

Activity Group: Logistics Support Activities (continued)
Claimant: Naval Sea Systems Command

8. Reconciliation of Increases and Decreases (continued)

improper preparation of specifications or processing of procurement documentation.	
2) SURFACE WARFARE SYSTEM LOGISTICS - Decrease reflects reduced support for data, management and equipment installation support for TERRIER, TARTAR and Standard Surface Missile Systems (-49) and 3 fewer workyears for quantitative test and evaluation appraisals of the safety and reliability of performance of inservice expendable ordnance in support of Weapons Evaluations (-317).	-366
3) STANDARD EMBEDDED COMPUTER SUPPORT - Reduction reflects decreased support for the AN/UYK 43 and 44 Tactical Embedded Computers (-200) and the AN/UYK 20 and 7 computers (-80).	-280
4) AMMUNITION SYSTEMS LOGISTICS - Decrease reflects 37 fewer workyears of support for the Regular, Receipt, Segregation, Storage and Issue of Ammunition, Ammunition Inventory and Intra-DOD warehousing efforts (-2,405); and 2 fewer workyears in support of Property Disposal of Ordnance efforts (-145).	-2,550
5) SAFETY AND SECURITY LOGISTICS - Decrease reflects reduced funding for Security efforts. Specifically reduced are Small Arms Management (-31); Sensitive Ordnance Security Support (-358) and Nuclear Weapons Security Installation Support (-5). For Safety, decrease reflects reduced funding for Explosives Safety Program Support (-73); Nuclear Safety Analysis Support (-86) and reduced Occupational Health Technical Support (-7).	-560
6) SHIP SYSTEMS LOGISTICS - In the Marine Gas Turbine program there is a reduction of engineering efforts to analyze and resolve problems affecting Marine Gas Turbine engines and a reduction in onboard assistance efforts (-1,775). There is also a reduction in support services for Automated Engineering (-182); and a reduction due to fewer	-2,344

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

ship specification updates (-387).	-2,710
7) ACQ & LOGISTICS SUPPORT - Reductions reflect decrease in ADP support for outfitting management systems (-43); decrease in SCLSIS system management, monitoring and quantity analysis effort (-1,172) and Fleet ILO support (-361); 40 fewer full screen breakout reviews will be accomplished (-446); 17 fewer equipments will be preserved (-60); 1 less material inspection will be conducted (-50); and decrease in efforts for the Shipboard Non-Tactical ADP (SNAP) maintenance data system (-578).	
8) OTHER LOGISTICS - Decrease reflects a reduction in support of the SHARP standardization program.	-54
9) SURFACE SHIP LOGISTICS - Decrease reflects reduced materials management of PHM class unique equipment.	-49
10) DIVING AND SALVAGE LOGISTICS - Decrease reflects reduced support to the Navy Experimental Diving Unit (EDU) (-131), reduced certification training (-29), less fleet support (-11), and reduced support for Navy salvage operations (-19).	-190
11) INDUSTRIAL FACILITIES SUPPORT - Decrease reflects reduced support for studies in Material Handling, Industrial Improvement, and Asbestos Litigation (-54); reduced installation support on the Range Magnetic Silencing System (-54); reduced management support for landbased and floating drydocks in the Drydock Certification program (-31); decreased maintenance of Nuclear Hulls recordkeeping/supervision (-44); decreased computer support (-7); and reduced Designated Overhaul Program/Maintenance Intervening Support Office (DOP/MISO) efforts (-19).	-209
12) DATA SUPPORT - Decrease reflects reduced support to the Automated Data Systems Activity (SEADDSA) (-132) and the Navy Regional Data Command (NARDAC) (-54).	-186
13) UNDERUTILIZED PLANT CAPABILITY - Decrease reflects	-510

Activity Group: Logistics Support Activities (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

reduced subsidy to Naval Ordnance Stations (-448) and
Naval Shipyards (-62).

10. FY 1991 President's Budget Request

\$ 296,787

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

A. SURFACE WARFARE SYSTEMS LOGISTICS

This program provides various logistics support efforts for Surface Warfare Systems. Specific efforts include: quantitative tests and evaluation appraisals of safety, readiness and effectiveness of all nuclear and conventional weapons as well as Ship Readiness Assessments and technical support; assurance of quality instructions, availability of spares, data management and equipment installation support for TERRIER, TARTAR and Standard Surface Missile Systems; and publication of the Surface Warfare Journal. Additionally, the program provides for engineering, technical support, installation and centralized management of the intrusion detection systems (IDS) at Naval activities to allow security forces early electronic warning of intrusion.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
Total Funding	18,303	13,691	8,773	8,670
Weapons Evaluations (WY's)	95	79	85	82
Ship Readiness Assessments (WY's)	13	0	0	0
Integrated Logistics for Surface Missile Systems (WY's)	36	26	25	25
Surface Warfare Magazine (no. of Issues)	7	3	3	3
Intrusion Detection Systems (Remote Sensor Upgrades) (WY's)	104	110	*	*

* Transfers to Naval Security and Investigative Command in FY 1990.

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

B. STANDARD EMBEDDED COMPUTER SUPPORT

This program supports the Navy's standard tactical computers, including the AN/UYK-7 and 20 computers, various peripherals and displays, and the new AN/UYK 43 and 44 computers. Standard embedded tactical computers are used in Mission Critical Computer Systems to improve operational readiness and reduce cost. This program provides project managers with standard computers, displays and peripherals and high order language software support. Funding provides logistic support, acquisition management, configuration control of tactical embedded computer systems, peripherals and displays. The AN/UYK-43 (V) and 44(V) standard embedded computers are currently being introduced into the fleet. Costs are driven by the number of users, applications, work hours, combat systems and manual updates performed.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS	\$	UNITS
Total Funding	8,024	5,476	6,727	6,159

FLEET POPULATION

AN/UYK-43 Computers	360	504	648	792
AN/UYK-44 Computers	2,050	2,850	3,650	4,350
AN/UYK-20 and				
AN/UYK-7s computers	6,578	6,578	6,578	6,578
Displays	6,400	6,900	7,400	7,700
Peripherals	4,950	5,350	5,850	6,350

LOGISTICS SUPPORT (WYs)

AN/UYK-43 (WYs)	3,401	2,772	3,405	3,117
AN/UYK-44 (WYs)	3,205	1,493	1,834	1,679
AN/UYK-20 & AN/UYK/7	345	506	622	569

7 0307

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
(WYs)	5.6	0	0	0
Displays (WYs)	584	295	362	331
Peripherals (WYs)	396	410	504	463
ADA Logistics and Software Support (WYs) *	93	0	0	0

* formerly Software Support

C. AMMUNITION SYSTEM LOGISTICS

Provides for the movement, handling, storage and disposal of munitions as required by Fleet operations and for inventory management. The major effort funded is the Receipt, Segregation, Storage and Issue (RSS&I) of ammunition which funds personnel and material associated with the onloading and offloading of ammunition from Fleet ships. Additional funding supports personnel, material and facilities to manage the Navy worldwide disposable munitions inventory and to accomplish required reuse, declassification and demilitarization in the most effective and economical manner consistent with all safety, security and environmental regulations and constraints. Unit cost varies from year to year due to the type and mix of munition, their condition and required disposal process. This program also provides support for intra-DOD warehousing agreements for use of Navy-owned facilities.

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
Total Funding	76,198	63,379	71,189	70,771
Receipt, Segregation, Storage and Issue of Ammunition	65,575	53,889	61,405	60,414
No. of Ship Visits	1,213	906	842	833
Total Workyears	798	648	728	695
Property Disposal of Ordnance (No. of line items in 000's) (WYs)	5,363	3,931	4,467	4,453
	56.0 77	45.0 59	56.3 64	58.6 62
Ammunition Inventory (WYs)	4,602	4,502	4,314	4,729
Intra-000 warehousing (WYs)	263	557	385	517
Non-Nuclear Accuracy Inventory Assessment	395	500	618	658

D. SAFETY AND SECURITY LOGISTICS

Program provides for the security and safety of nuclear and non-nuclear ordnance at Naval Weapons Stations

7 0309

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

and other activities and for ammunition inventory. Specific efforts include: guard and inventory security of Arms, Ammunition and Explosives (AA&E) at Naval Weapons Stations; maintenance of nuclear weapons security systems, sensors and security upgrades at nuclear weapons-capable Navy Activities; life cycle program management and support for small arms nuclear weapons studies and analyses to implement the Department of the Navy Nuclear Weapons Safety Program; explosive weapon systems analyses and tests; technical support for guidance and procedures regarding detection, evaluation and control of work place hazards; and operation of the Navy Safety School (which transfers to the Chief of Naval Education and Training (CNET) beginning in FY 1988).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS	\$	UNITS
Total Funding	11,953	16,351	19,532	19,582
SECURITY	14,650	11,244	13,207	13,207
Ordnance Guards	156	150	150	150
Ordnance Inventory (WYs)	29	0	13	11
Nuclear Security				
Installations (WYs)	225	150	250	250
Small Arms Management (WYs)	12.1	10.5	11.5	11.8
Safety	28.1	19.0	20.7	20.2
SAFETY	7,303	5,107	6,325	6,375
Nuclear Safety Analysis (WYs)	49.3	37.1	52	51
Explosives Safety Program (WYs)	48	31.5	33.9	32.9
Safety Investigations	10	7	8	8

7 0310

Activity Group: Logistics Support Activities (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

E. SHIP SYSTEMS LOGISTICS

This program provides support for technical documentation required for preparing and updating federal/military specifications and standards needed for ship equipment acquisition, maintenance, repair and overhaul; develops and updates Navy unique ship design criteria and practices; and provides life cycle engineering and technical efforts to manage and support all logistics elements of marine gas turbines. A driving force behind the marine gas turbines is the number of engines supported by this program and the cost avoidance that occurs when a marine gas turbine is repaired on board rather than at a depot maintenance activity. In addition, this program provides computer support to design engineers for automated calculations essential to ship design, construction, and maintenance. Computer requirements include 1) service support for the in-house facility, 2) supplies and equipment maintenance for the in-house facility, and 3) remote facility computing time. Related to this effort is computer aided engineering, which develops and updates computer programs used in ship design.

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
Total Funding	16,801	14,936	15,101	13,205
Technical Documentation				
No. of practices updated/ backlog	1/131	0/140	3/144	2/117
No. of HM&E Standard Specs developed	4	*	*	*
Spec/Stdg/Dwgs/GenSpec updates **	160	84	85	82
5-yr Mandatory Reviews	0	0	700	700
Marine Gas Turbines				
No. of Engines supported	714	811	853	925
Cost avoidance resulting from on board repairs (\$M)	42	49.3	38	38
Automated Engineering Support Number of users	401	288	275	264
Computer Aided Engineering Programs Updated	7	7	6	6
Programs Developed	6	7	7	7

* The HM&E Standardization effort transfers to Ship Systems Engineering in FY 1989.
 ** Represent change in method of recording specification updates.

Activity Group: Logistics Support Activities (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

F. ACQUISITION AND LOGISTICS SUPPORT

The Acquisition and Logistics Support program consists of a large variety of tasks which includes configuration documentation, spare parts requirements management, Full Screen Breakout Reviews, procurement of technical data packages, development and execution of integrated logistics support procedures, and acquisition improvement efforts such as specialized development and costs control programs and the establishment and maintenance of data bases for ship acquisition and operating and support cost data. Additional tasks consist of removing and preserving stored equipment, material inspections of ships, and the development and updating of material maintenance procedures and data bases. Below are more specific explanations.

Acquisition Planning provides for the following: the establishment and maintenance of a ship acquisition data base; studies and reports related to ship acquisition planning; the continued study of ways to improve specifications and planning in major systems acquisition and ship construction projects; the Commanders Development Program (CDP) and NAVSEA Institute.

Logistics Support Program consists of three major efforts. The Provisioning, Allowance and Fitting Out Support program (PAFOS) determines ship requirements for spares and spare parts necessary for maintenance throughout their life cycle. Allowance Parts Lists (APLs), Outfitting Management Reports, and New Construction Readiness updates are the principal products of the program. Allowance parts lists are lists of spares and spare parts that a specific ship needs. Outfitting management reports determine how a ship is fitted out to support its assigned mission. New construction readiness updates assess the effectiveness of the provisioning allowance and outfitting efforts.

The Ship Configuration and Logistics Support Information System (SCLSIS) and the Integrated Logistic Overhaul (ILO) programs, collect, process, and distribute the configuration status data for each ship and activity, and identify the logistics support documentation and materials required to be loaded aboard ships after each overhaul, availability, or conversion.

Buy Our Spares Smart (BOSS) is the Secretary of Defense initiative to improve competition in the acquisition and procurement of spares and spare parts determined in the PAFOS program. The program accomplishes its goal via performance of Full Screen Breakout reviews, Contractor Technical Information Coding/Acquisition Method Coding Conferences (CTIC/AMC), procurement of technical data packages, and technical screening.

Integrated Logistics Support Technical Improvement Program (ILSTIP) supports key logistics areas and

Activity Group: Logistics Support Activities (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

implements advanced logistics initiatives which will improve logistics execution and reduce resource requirements through: 1) development of procedures to improve execution of ILS for ships and equipments; and 2) development and implementation of automated ILS improvement programs. This program will be assumed by the Navy Supply Command starting in FY 1990.

NAVSEA Material Support ensures that government furnished material which is in storage or on-board inactive ships is delivered on-time to meet contractual shipbuilding schedules to avoid costly delays and/or to establish accelerated ship overhaul schedules. To accomplish this objective, efforts are concentrated on preserving stored equipment from deterioration, removing material from inactivated ships, and data support. Data systems support procures data processing for monitoring NAVSEA 2F, 2J and 2S Cog Equipment.

Inspection and Survey (INSURV) Material Inspections consists of the Material Inspections (MI) of ships in the active fleet conducted by the INSURV board to give the Chief of Naval Operations an impartial factual report of the material condition of each ship on a triennial basis.

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Maintenance and Material Management (3M) is comprised of three Fleet support efforts: (1) Planned Maintenance System (PMS) provides development/revision of maintenance procedures for each ship, updates each ship's set of procedures twice a year and responds to Fleet requests (feedback reports) for help in performing maintenance; (2) Maintenance Data System (MDS) provides for collection of maintenance needs and Fleet improvements and also provides computer requirements for SNAP computer software development to upgrade maintenance management in the Fleet; and (3) Navy Oil Analysis Program provides visual and spectrographic analyses of ship machinery lube oil and provides a data base used to make machinery repair decisions.

Visibility and Management of Operations and Support Costs (VAMOS-Ship) is a management information system that provides historical operating and support (O&S) cost data on active fleet ships. VAMOS-SHIPS produces two standard and numerous special reports annually. The standard reports address O&S data on individual active fleet ships and maintenance on shipboard equipment items. Special reports are produced per customer requests. The data are used for weapon system acquisition deliberations, value per logistics dollars spent analyses, deployed systems' sustainability, life-cycle estimating and other types of analyses.

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$		\$		\$		\$	
	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
Total Funding	69,201	47,018	51,086	49,970				
Acquisition Planning	1,562	1,051	1,107	1,142				
Developmental Prgrms	(773)	(760)	(602)	(602)				
Planning Procedures	(789)	(291)	(505)	(540)				
& Data Base Reqmts								
Logistics Support	20,892	15,599	24,185	23,363				
Program	(4,597)	(2,395)	(2,448)	(2,477)				
PAFOS	4,166	1,556	0	0				
APL Updates								
Outfitting Systems	10,536	6,774	5,512	5,683				
ADP Hours	180	96	159	162				
Readiness Updates								

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
SCLISIS/ILO *	(16,295)	(13,204)	(21,737)	(20,886)
CDM Operations	3.8	2.3	4.9	4.9
# transactions (MIL)				
Validations/Audits	43.0	53.0	53.0	49.0
#Validations/Audits				
SCLISIS SYS MGMT	6.2	23.3	8.0	1.7
Workyears				
ILO Support	10.9	10.5	42.9	40.0
Workyears				
BOSS	30,019	16,458	8,026	7,820
Breakout Reviews	8,350	800.0	700.0	660.0
CTIC/AMC Conf				
Technical Screening	30.0	0.0	0.0	0.0
ILSTIP **	1,379	1,265	0	0
ILS Execution (WY)	11.1	11.7	0.0	0.0
Logistic Support				
Imprv Program (WY)	3.6	4.8	0.0	0.0
NAVSEA Material Spt	1,665	1,471	1,497	1,506
Equipment Removed	25.0	32.0	63.0	70.0
Equipment Preserved	112.0	92.0	115.0	98.0
INSURV	2,537	1,792	1,910	1,917
Material Inspections	137.0	101.0	109.0	108.0
INSURV assistance for				
Maintenance and Material				
Management (3M)	10,553	9,040	13,605	13,440
Routine Feedback				
Reports	9,806	10,663	16,000	16,000.
Complex Feedback				

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$		\$		\$		\$	
	UNITS		UNITS		UNITS		UNITS	
Reports	1,200		0.0		1,200		1,200	
Backlog of FBRs	6,194		6,537		0.0		0.0	
MDS Data Base								
Manyyears	38.0		41.4		58.9		53.7	
NOAP Manyyears	7.2		7.0		8.5		8.1	
VAMOSC/WYS	594	9.1	342	5.0	756	11.2	782	11.6

* Performance criteria has been changed to more accurately describe the program.

** Integrated Logistics Support Technical Improvement Program (ILSTIP) responsibility assumed by NAVSUP in FY 1990.

G. OTHER LOGISTICS

The Standardization program provides for the development of general approaches and detailed procedures for achieving conservation of resources. A standardization effort strives to achieve similarities in ship acquisition and maintenance actions. The purpose of the Standard Hardware Acquisition and Reliability Program (SHARP) standardization effort is to make available and implement common modules, power supplies and hardware in the design and production of military electronic systems. The energy conservation effort reduces oil usage via the Ship Energy Package Implementation Program (SEPIP) and Ship Energy Conservation Assistance Team (SECAT) visits. The energy conservation effort supports issuance of energy conservation regulations, application of related R&D projects and expedited hull cleaning and coating.

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>\$</u>	<u>UNITS</u>	<u>\$</u>	<u>UNITS</u>
Total Funding	2,137	1,490	1,637	1,633
a. Standardization Workyears of effort	5.0	0.0	0.0	0.0
b. SHARP Standardization	10.9	4.0	5.0	5.0
1. SHARP Systems	7.2	11.0	11.0	11.0
2. STD Elect MOD	3.9	1.0	1.0	1.0
3. STD Enclosures	3.2	4.0	4.0	4.0
4. STD Power Supplies	15K	0	0	0
c. Ship Energy Conservation				
Barrels of Oil Conserved				

H. SURFACE SHIP LOGISTICS SUPPORT

This program provides PHM Class life cycle support through contractor logistic support. The materials management effort provides for the repair and inventory management of unique and necessary parts for the PHM ships. The engineering and technical support effort is the equivalent of Navy in-service engineering for PHM unique equipment.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>\$</u>	<u>UNITS</u>	<u>\$</u>	<u>UNITS</u>
Total Funding	6,936	1,732	1,877	1,884

FMPMIS

1. Central Node Operations	3,196	0	0	0

7 0318

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
2. Field Node Operations	941	0	0	0
PHM Logistics				
1. Materials Management*	2,216	1,732	1,682	1,680
2. Eng and Tech Support	583	0	195	204

* BA 7 pays for management of materials originally procured with SCN as well as Fleet and NAVSEA O&M,N.

I. DIVING AND SALVAGE LOGISTICS

The Diving portion of this program provides funding to operate and maintain the Navy Experimental Diving Unit (NEDU); perform the Navy System Safety Certification of all Fleet diving systems and equipment; provide In-Service Engineering Agent (ISEA) and technical Direct Fleet Support (DFS) to all diving commands; test all equipment which malfunctions; perform air sampling analyses for all Fleet diving systems; and to provide system certification management for all Fleet diving systems, and publish and maintain technical documentation for Fleet diving operations and equipment.

The Navy Salvage Operations portion of this program provides the capability to respond to operational salvage and stranding requirements for Navy ships, submarines, cargoes, and high interest items. Funding pays for ships, equipment, personnel and other material required for emergent salvage operations.

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	4,281	4,048	4,757	4,739
Diving:	3,330	3,352	3,999	3,978
Workyears (NEDU)	26	25	25	25
NEDU, support costs	(1,996)	(2,377)	(2,852)	(2,804)
Certification, # efforts	(575)	(575)	(665)	(655)
Direct Fleet Support, # tests	(625)	(300)	(382)	(382)
Configuration Mgt & tech documentation	(134)	(100)	(100)	(137)
Navy Salvage Operations:	951	696	758	761
Number of salvage operations	3	2	2	2

7 0320

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

J. INDUSTRIAL FACILITIES SUPPORT

Industrial Facilities Support Program ensures readiness of facilities capable of maintaining, repairing, overhauling and delivering ships to the fleet on schedule and in the most efficient and cost effective manner possible. The program consists of many disparate sub-programs: (1) Material Handling; (2) Magnetic Silencing; (3) Drydock Certification; (4) Industrial Improvements; (5) Maintenance of Inactive Nuclear Hulls; (6) Asbestos Litigation; (7) Fleet Equipment purchases of \$3-\$5 thousand; (8) Equipment purchases of \$5-\$15 thousand which migrated from OPN as a result of expense/investment criteria change; (9) Maintenance Interservicing Support Office; and (10) Designated Overhaul Point.

		FY 1988	FY 1989	FY 1990	FY 1991
		UNITS \$	UNITS \$	UNITS \$	UNITS \$
Total Funding		5,106	2,806	4,780	4,719
Studies					
Mat. Handling/Trng		132	63	196	189
# of studies		2	1	4	4
Indust Imp Prog		441	258	631	610
# of studies		2	1	3	3
Asbestos Litigation	/1	293	118	217	208
# of studies		2	1	3	3
Magnetic Silencing	/2	1,290	917	1,367	1,337
# of systems		5	1	1	1
Drydock Cert	/3	1,115	404	648	636
# of certifications		32	20	50	52
Nuclear Hulls Maint	/4	931	663	1,171	1,144
# of hulls		21	25	31	35
Plant Equipment		234	164	261	243
Computer Support		345	59	93	85
# of MY		1	1	2	2

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Designated Overhaul Program	104	46	66	60
# of MY	1	1	1	1
MISO	221	114	130	207
# of agreements	36	36	36	36
Additional Data:				
/1 Asbestos Litig. (Man Hours)		(118) 3,456	(217) 6,658	(208) 6,497
Data Org., Coding, & Entry		29 864	61 1,821	59 1,808
Data Location, Recovery,		18 518	29 967	28 948
Compilation & Annotation		35 1,037	64 1,935	62 1,845
Data General, Relevancy		24 691	43 1,290	39 1,264
Screening and Analysis		12 346	20 645	20 632
Data Transfer and Exchange				
General Data Spt, Update				
and Maintenance				
/2 Magnetic Silencing		(917)	(1,367)	(1,337)
Training/Travel		100	100	100
Software Development		50	50	50
Procurement Support		100	100	100
Fleet Spt/Test Equip		250	250	250
Tech Procedures Prep		100	100	100
Equip. Installation		317	767	324
Range System (1)		0	0	415
Platform Dolphin System (1)				

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
/3 Drydock Certification				
Audit Nuclear Floating	(404)	0	(648)	(636)
Dyrdocks	122	10	219	215
Mgt. Spt.-Nuclear-Capable				
Drydock Follow-up Certification &	45	2	0	0
Certification Review (FCR & FCC)				
Mgt Spt-Non-Nuclear Land				
Based Drydock	110	0	203	203
Mgmt Spt Non-Nuclear Fltng				
Drydock	120	0	226	218
Capacity Upgrades/	7	1	0	0
dock transp				
/4 Maint. of Inactive Hulls				
Inspections	(663)	(1,171)	(1,144)	
Maint/Preservation	173	210	240	
Radiation Control Surveys	152	193	214	
Brow Maint	143	182	202	
Repairs	25	29	32	
Recordkeeping/Supervision	57	161	178	
	113	388	278	

K. DATA SUPPORT

The program supports information and data systems designed to improve the in-house capability for life cycle management of ships and weapon systems. This support is accomplished primarily through such activities as the NAVSEA Automated Data Systems Activity (SEADSA) and the Navy Regional Data Automation Center (NARDAC). SEADSA is the central design agent for automation technology and ADP systems. SEADSA also performs

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

management reviews of proposed ADP systems, equipment services, applications of ADP software and ADP installation at NAVSEA facilities. NARDAC provides in-house support for comptroller, contract, and other management requirements.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
	\$	\$	\$	\$
Total Funding	7,855	6,786	6,827	6,931
Workyears	94.0	85.0	80.0	80.0
-----	-----	-----	-----	-----
SEAADSA	4,068	3,963	3,950	3,950
NARDAC	1,315	1,600	1,600	1,600
Other ADP Support	1,064	1,223	1,277	1,381
CAD/CAM	1,408	0	0	0

L. UNDERUTILIZED PLANT CAPACITY

This program provides a subsidy to Naval Weapon Stations and Shipyards, allowing them to maintain plant capacity, which could be used in the event of war. The subsidy for a facility is the amount of funds needed to maintain 85 percent of maximum capacity minus the amount of Navy Industrial Funds (NIF) budgeted for that year. Funding this program in an amount other than that required results in a gain or loss in the Accumulated Operating Results (AOR) of the Ordnance activity fund. Since funding is budgeted into overhead rates at each activity, it is not possible to equate specific efforts to funding provided. However, maintenance projects funded include such items as repair of pier decks, railroad repair, fire protection, pier and trestle repairs, and water distribution system upgrades. Following is the total budgeted for each activity.

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS	\$	UNITS
Total Funding	103,742	105,943	105,858	108,524
WPNSTA				
Concord	14,640	14,279	16,892	16,887
WPNSTA				
Earle	14,852	14,810	15,876	16,142
WPNSTA				
Charleston	827	842	1,431	1,481
NAWPN SUPPCEN				
Crane	11,190	9,811	9,804	10,054
NAVORDSTA				
Indian Head	17,693	18,766	18,471	19,149
NAVORDSTA				
Louisville	16,417	16,882	16,868	17,299
WPNSTA				
Seal Beach	11,693	12,449	8,968	9,277
WPNSTA				
Yorktown	11,130	12,704	12,148	12,735
TOTAL WPN STA FUNDING	98,442	100,543	100,458	103,024

Activity Group: Logistics Support Activities (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
NSY Portsmouth	685		698		698		698	
NSY Philadelphia	1,340		1,365		1,365		1,465	
NSY Norfolk	334		340		340		340	
NSY Charleston	197		201		201		201	
NSY Long Beach	1,605		1,635		1,635		1,635	
NSY Mare Island	185		189		189		189	
NSY Puget Sound	627		639		639		639	
NSY Pearl Harbor	327		333		333		333	
Total Shipyard Funding	5,300		5,400		5,400		5,500	

Activity Group: Logistics Support Activities (continued)
Claimant: Naval Sea Systems Command

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>	<u>65</u>	<u>75</u>	<u>75</u>	<u>75</u>
Officer	11	13	13	13
Enlisted	54	62	62	62
B. <u>Civilian</u>	<u>115</u>	<u>107</u>	<u>107</u>	<u>107</u>
USDH	115	107	107	107

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

Activity Group: Industrial Preparedness
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

This activity group provides resources for certain efforts conducted at contractor operated facilities and for readiness related plans and has provided for shipyard subsidized base operating and mandated program support. Government Owned, Contractor-Operated Facilities (GOCO) provides for lease administration and inspection of GOCO facilities and drydocks as well as for maintenance, protection, inventory and storage of government-owned special tooling/test equipment (ST/STE) at the Naval Weapons Support Center (NSWC) Crane. Industrial Readiness provides for development of formal plans with industry for emergency production of weapon systems and industrial base data collection. It involves planning with individual producers of critical items for a specific level of production sufficient to meet surge and mobilization requirements. The industrial facility mandated program and operating support program, pursuant to a SECNAV Initiative to remove non-shipwork related costs from the naval shipyard stabilized manday rates, provides direct funding to the industrial facilities. The program supports unique requirements resulting from higher authority/regulatory direction, which are not incurred by private activities performing similar work. This effort transfers to Base Operating Support, Other Base Services beginning FY 1989.

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
INDUSTRIAL PREPAREDNESS	8,883	13,180	13,170	676	1,529	1,530		
Total, INDUSTRIAL PREPAREDNESS	8,883	13,180	13,170	676	1,529	1,530		

7 0328

Activity Group: Industrial Preparedness (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$	676
2. Pricing Adjustments			30
A. Industrial Fund Rates	(	12)	
B. Other Pricing Adjustments	(	18)	
3. Program Increases		\$	830
A. Other Program Growth in FY 1990	(	830)	
1) INDUSTRIAL PREPAREDNESS - In Industrial Readiness, increase reflects more intensive capacity reviews (84). In Surge Planning, increase provides for development of planning techniques for data gathering and analytical capability systems and simulation tools for the automated Navy Production Base Analysis (136). Additional increase is for analysis of industrial and mobilization capability for critical items and systems and/or those restricted to domestic sources. Expansion of this analysis is to include the major HM&E equipments for over 20 ship classes and will involve development of reporting and analysis criteria for over 1,000 critical shipboard equipments (527). ST/STE (Special Tooling/Special Test Equipment) Repository will undergo additional maintenance, protection, and storage of ST/STE (83).		830	

Activity Group: Industrial Preparedness (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued).

4. Program Decreases	-7	
A. Other Program Decreases in FY 1990	(-7)	
1) INDUSTRIAL PREPAREDNESS - GOCO (Government Owned, Contractor - Operated Facility) lease administration efforts reduce requirements for SUPSHIPS lease administration.	-7	
5. FY 1990 President's Budget Request	\$ 1,529	
6. Pricing Adjustments	50	
A. Industrial Fund Rates	(26)	
B. Other Pricing Adjustments	(24)	
7. Program Increases	10	
A. Other Program Growth in FY 1991	(10)	
1) INDUSTRIAL PREPAREDNESS - Increase in support for ST/STE (Special Tooling/Special Test Equipment) Repository (7); GOCO (Government Owned, Contractor - Operated Facility) lease administration efforts increase requirements for SUPSHIPS lease administration (3).	10	
8. Program Decreases	-59	
A. Other Program Decreases in FY 1991	(-59)	
1) INDUSTRIAL PREPAREDNESS - Industrial Readiness programs will decrease shore capacity review efforts (-7). Surge Planning programs will decrease efforts in computer simulation modeling (-52).	-59	
9. FY 1991 President's Budget Request	\$ 1,530	

7 0330

Activity Group: Industrial Preparedness (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS	\$	UNITS
<u>INDUSTRIAL PREPAREDNESS</u>				
Total Funding	8,883	10	676	10
Facility/Drydock Lease Admin.	4	18	12	15
ST/STE Repository *	51	18	102	112
Shore Capacity Rev. # of Activities	265	167	256	256
		10	10	10
Surge Planning/Studies Systems Developmt	387	350	453	440
Vendor Analysis	216	123	706	707
Naval Shipyard Industrial Preparedness **				
NSY Portsmouth	729	0	0	0
NSY Philadelphia	1,804	0	0	0
NSY Norfolk	1,036	0	0	0
NSY Charleston	674	0	0	0
NSY Long Beach	1,380	0	0	0
NSY Mare Island	611	0	0	0

7 0331

Activity Group: Industrial Preparedness (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
NSY Puget Sound	818	0	0	0
NSY Pearl Harbor	908	0	0	0

* Special Tooling/Test-Equipment (ST/STE)

** The Industrial Preparedness efforts transfer to Base Operating Support Other Base Services (F3FR), beginning FY 1989.

ADDENDUM - Surge Planning Growth

Funding for Surge Planning has a two-fold purpose. The first, System Analysis, is to provide for costs associated with the development of industrial Preparedness Planning and Data Gathering Planning techniques for the automated Navy Production Base Analysis (PBA). The purpose of the PBA is to be able to "tell the warfighting community what they can expect in terms of end items and spare parts production" under surge and mobilization conditions. This is a significant aspect of the CNO's maritime strategy. The second, Vendor Analysis, has as its purpose to provide for OSD directed studies of critical systems required for industrial surge and mobilization. Surge analysis is predicted on detailed industrial Shipbuilding PBA's which require separate surge planning contracts with individual producers or funding for contract modifications to provide surge data on existing hardware contracts.

Activity Group: Industrial Preparedness (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

SYSTEMS DEVELOPMENT

The long range functional requirement of funding represented within Systems Development is to develop a Navy integrated automated data retrieval and processing system capable of accessing various Navy logistics data bases which support the Navy Logistics Planning and Execution System. Currently the funding in Surge Planning provides for a portion of the Concept Development phase of this overall effort. During this phase the functional descriptions and top level systems definitions will be developed to provide Navy planners with the ADP resources/capabilities to perform the following and other functions:

- * Storage and retrieval of information on the capabilities of the industrial base to produce items critical to the support of U.S. Maritime operations.
- * Provide on-line access to Navy Industrial Preparedness Planning data for the development and refinement of logistic support plans with computer-aided feasibility analysis of resulting support issues.
- * Provide for the development of *Industrial Mobilization Plans* to support warfighting requirements and for development of graduated mobilization options for use by the National Command Authority.
- * Evaluate the status of wartime issues relating to the Industrial Base.
- * Provide on-line access to Naval Industrial Preparedness Planning data for the refinement of Echelon II Logistics Support and Mobilization Plans.

Funding provided in the FY 1990 and FY 1991 Surge Planning Systems Development budget will support initial systems definition and a portion of the Conceptual Design effort of the Naval Industrial Mobilization Preparedness Planning process. Development of the overall system will require substantially higher funding levels over several years to realize a fully integrated/operational system. The following information depicts the quantities of manpower to be used in this conceptual design phase.

Activity Group: Industrial Preparedness (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

<u>Labor Category (manyears)</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Systems Engineer	0.8	0.8	0.7
Senior Systems Analyst	1.0	1.0	1.0
Senior Data Base Analyst	1.0	1.0	1.0
Programmer/Analyst	---	1.0	1.0
	-----	-----	-----
Systems Development Estimated Costs (\$000)	\$350	\$453	\$440

VENDOR ANALYSIS

Vendor Analysis includes monitoring and evaluating the surge and mobilization capabilities of several hundred private shipyards and several thousand prime/sub-tier manufacturers of over 10,000 shipboard components, equipments and systems. Present efforts include monitoring and evaluating the domestic industrial base's mobilization capabilities to sustain the current fleet and satisfy fleet expansion requirements for a protracted conventional global conflict. This evaluation is updated on an annual basis, is very labor intensive, and is largely performed in-house through the Naval Shipbuilding Scheduling Office.

Activity Group: Industrial Preparedness (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

<u>Operations</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Total Manyears	1.5	7.8	7.6
# of Vendor Analysis	72	374	365
# of Travel Trips	10	58	57
	-----	-----	-----
Vendor Analysis	\$123	\$706	\$707
Estimated Costs (\$000)			
<u>SURGE PLANNING TOTAL:</u>	<u>\$473</u>	<u>\$1,159</u>	<u>\$1,147</u>

IV. Personnel Summary. N/A

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

Activity Group: Engineering Support Services
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

This activity group provides the technical and engineering efforts to maintain and improve the operational readiness of ship and combat systems in the Fleet. Engineering efforts include:

- development of improvements to decrease safety and fire risks for ships and ship systems;
- testing and analysis of the integration of diverse shipboard systems;
- field engineering to respond to the Fleet's emergency problems;
- analysis of performance data to improve systems availabilities;
- operational testing of combat systems to assure reliability and to transfer technical knowledge to the ships' force;
- providing support to Intermediate Maintenance Activity (IMA), Fleet Maintenance Activity (FMA), In-service Engineering Agent (ISEA) activities and for configuration management to ensure real time electronic warfare capability;
- technical evaluation/review of boards, reports, and other support of Electromagnetic Environment Effects (E3);
- technical evaluation of impact of special World Administrative Radio Conference (WARC) and development of technical alternatives for Navy requirements;
- performance and analysis of tests; such as shock tests, inclining experiments, and submarine acoustic trials, leading to improved ship survivability, stability, and lower noise levels; and
- testing, training, and certification to assure product quality;
- engineering and technical services supporting maintenance and repair of all operating naval ships.

The Naval Sea Systems Command (NAVSEA) is responsible for the maintenance of ships, systems and related equipment, and weapons and ordnance systems. NAVSEA is also responsible for a variety of engineering tasks which range from planning for the extension of the useful life of a tactical data system to 10 years, to improving overhaul procedures for a major combat system, and providing technical manual updates and reprints for all of the NAVSEA equipments. For each system managed by NAVSEA, such as the MK 75/76MM gun systems, the LM2500 gas turbine engines, and the nuclear propulsion systems, technical engineering expertise and support is required to improve the reliability, sustainability, safety, and maintainability of the Navy's ship systems.

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

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		
SURFACE WARFARE SYS ENG	29,078	20,950	20,636	17,577	22,183	21,897
UNDERSEA WARFARE SYS ENG	13,363	9,839	9,603	17,301	25,296	25,368
SURFACE SPT SYS ENG	45,001	21,036	20,679	31,121	38,798	40,341
AIRCRAFT CARRIER SPT SYS ENG	7,625	7,806	7,698	8,259	12,565	14,028
ELECTRONIC SYS ENGINEERING	9,247	7,288	7,183	6,996	7,527	7,729
ELECTRONIC WARFARE	15,907	13,868	13,644	11,816	12,100	11,447
TECHNICAL PUBLICATIONS	33,445	27,483	26,911	25,654	31,789	34,300
COMMAND & CONTROL	472	477	470	467	0	0
COMBAT SYSTEMS SUPPORT	25,378	17,955	17,598	19,831	24,939	24,747
RELIABILITY & MATERIAL HAND	1,653	855	843	806	1,677	1,755
NUCLEAR PROP TECH LOG	110,789	117,548	117,548	117,548	142,129	148,153
Total, ENGINEERING SPT SER	291,958	245,105	242,813	257,376	319,003	329,765

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate \$ 257,376

2. Pricing Adjustments

11,416

A. Stock Fund

(3)

1) Non-Fuel

3

B. Industrial Fund Rates

(5,681)

C. Other Pricing Adjustments

(5,732)

3. Functional Program Transfers

12,827

A. Transfers-In

(16,000)

1) Inter-Appropriation

16,000

a) OPERATING REACTOR PLANT TECHNOLOGY - Transfer from Research, Development, Test and Evaluation (RD&E) appropriation to fund Naval Nuclear Propulsion Program laboratory work that has progressed to the point that it is more appropriately budgeted in O&M, N. This work includes collection, analysis, and projection of operating plant performance; radiation control; and fueling methods and techniques. This work focuses on ensuring continued safe and effective operation of commissioned ship reactor plants and increasing the operating life of these plants.

B. Transfers Out

(-3,173)

1) Intra-Appropriation

-500

a) CONTRACTOR SUPPORT CONVERSION - 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

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

improper preparation of specifications or processing of procurement documentation.

b) STANDARD LEVEL USER CHARGE (SLUC) - SLUC funds to rent commercially leased space realigned to Budget Activity 9, Base Operations Support, for direct payment to General Services Administration Federal Building Fund. -589

c) TRANSFER OF SUPPLY REIMBURSABLE FUNDING - 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 reimbursably. 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 in efforts from that performed in previous years. -1,868

2) Inter-Appropriation -216

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.

46,572

4. Program Increases

A. Other Program Growth in FY 1990 (46,572)

1) SURFACE WARFARE SYSTEMS ENGINEERING - Increase provides additional engineering and related efforts reflected by 31 additional workyears of support. Specifically, increase reflects additional support for responding to Fleet reported HARPOON engineering improvements (137); 5,950

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

additional engineering support for the Fleet and technical assistance to ShipAIt installing activities for the growing population of Close-In Weapons Systems (CIWS) (1,320); continued Fleet engineering support of in-service gun systems (20MM to 16 inch) and an increase in the number of systems introduced into the Fleet (268); additional support for Gun Fire Control Systems (445); and additional support for Lamps MK111 system (232). Other increases are for additional support for maintenance of Explosive Ordnance Disposal (EOD) manuals in an effort to reduce the backlog of manual updates that has built up from FY 1987. The requirement is driven by Fleet reports of unsatisfactory performance of existing manuals (1,000). An additional 23 workyears for In-Service Engineering Support of EOD systems driven by the 180% increase in the number of MK16 underwater breathing apparatuses as well as the introduction into the Fleet of the MK25 Ordnance Locator, MK23 Navigation Systems Fuse Neutralization Systems; ROVER system and MK1 Dry Suit (1,852); an additional 4 workyears of maintenance support for the Marine Mammal System on the MK3 MMS, the MK7 MOD1, MMS MK7, and MMS MK6 (460); and an increase of 2 additional mine system engineering technical projects for restart of work on retrofit of mines, protective mines and aircraft/mine certifications (236).

10,167

2) UNDERSEA WARFARE SYSTEMS ENGINEERING - Increase to the Harpoon program (8). The Deep Sea Submergence Program increases for on-site and plant support for NR-1's planning yard agents to aid the first-time-ever refueling of NR-1. This refueling will require extensive preplanning and coordination of the nuclear and non-nuclear work items to prevent overhaul extensions and rework (634). There is also an increase for design efforts for recovery winches, lines, slings and tools (as well as full lifecycle logistic support) to be operated by the robotic arms of the Unmanned Work Vehicle Systems (606). Increase also reflects Hull

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

system changes in the Hull, Electrical, & Mechanical Engineering program including: solving design deficiencies and installation problems in Towed Array-Guide Tube Roller Assemblies to prevent the loss of operational effectiveness (recent Casualty Reports (CASREPS) have identified the need for engineering changes, inspections, and assembly assistance to allow for the smooth deployment and retrieval of the array); and support to correct inadequate technical documentation and design features on ship crane efforts to reduce the current rate of CASREPS (992). The increase in propulsion systems is for the corrosion control program to reduce the frequency of main shaft seal failures and to extend the life expectancy from 1.6 years to 5 years; the determination of the cause of failures of Main Thrust Bearings and to develop corrective in-place diagnostics/monitoring of diesel engines; and for the analysis of CASREPS and the development of corrective actions to prevent their recurrence (1,614). The increase in Auxiliary systems is for the Submarine Atmosphere Material Evaluation effort to ensure that offgassing does not occur; engineering analysis on the performance improvement of O2N2 producer systems to correct technical problems which are causing a high rate of CASREPS; the development of a nuclear powered submarine control manual on repair/corrective maintenance procedures; Heating, Ventilation, and Air Conditioning (HVAC) technical support to correct ventilation fans and smoke/contaminant controls; and engineering analysis on the correction of Gas Management System design deficiencies (1,692). The increase in Electrical systems is for the analysis of Submarine Diesel Generator Set problems since the Submarine Force Top Management Attention Program (TMA) has identified this effort for corrective action due to the rate of Diesel Generator Set failures (496). In the Submarine Technical Support Program, 10 additional SUBSAFE audits will be performed due to more ships entering overhaul. Also, the

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

Atmosphere Control program increases to provide for the clearance of existing backlog of materials to be classified as allowed, restricted or prohibited for use (1,290). Within Ship Systems Hull, Mechanical and Electrical efforts, MK 48/HV 80 Dynamometer Qualification will be accomplished as a new initiative in addition to cleavage fracture final criteria development and corrective actions development (657). More Temporary Alteration Guidance Manuals maintained (70); and more logistic support due to increased ships entering overhaul (64). Submarine Noise Reduction will perform 12 additional engineering studies/investigation tasks for solution/correction to numerous existing noise deficiencies on SSN 688 Class submarines (1,684). Increase in technical support for conventional navigation equipment and the TRANSIT/OMEGA systems (360).

10,502

3) SURFACE SUPPORT SYSTEMS ENGINEERING - Increase reflects the addition of 8 inclining experiments (947); additional Ship Hardening program efforts to improve electrical power reliability (1,167) and to ensure that shock hardening corrective action is thoroughly reviewed and analyzed (832); and other damage control survivability engineering efforts (522). Increase reflects 21 additional workyears of Engineering Operational Sequencing Systems (EOSS) support. EOSS will be maintained on 10 newly installed EOSS ships (1,828). Increase also reflects additional resources for underway replenishment efforts to correct design deficiencies and develop engineering solutions for operational problems in cargo/weapons elevators (809). Increase for Electric Power Interface Compatibility (EPIC)/circuit breaker effort to provide for continued investigation and resolution of electrical compatibility problems caused by the interaction between the power source and user equipment to prevent ship electrical system failures (445); and increase in Electrical In-Service

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

Engineering (ISE) material readiness efforts for a comprehensive testing program to assure that Hull, Mechanical and Electrical (HM&E) items conform to Navy specifications before procurement (980); other increases are in the development of four HM&E standardized specifications for dehydrators, large steel valves, sliding padeyes, and adaptor plates (929) and in the effort to install shipboard fiber optic systems. This involves component specifications, requirements evaluation and other developmental efforts (503). Increases in Surface Combat Technical Support are for the low level shock test of a hardened CG-16 class ship (263); and expansion of the Battleship Supply Support Improvement Program (SSIP), which increases efficiency in supporting HM&E systems and gun weapons systems on reactivated battleships (322). The last BB-61 class ship enters the fleet in FY 1990 and the SSIP/life cycle management effort is now totally supported in the O&M.N appropriation. There is also an increase in the BB-61 class technical issue feedback efforts which provides the capability to identify battleship technical issues from design changes, trial reports and other reported discrepancies and problem reports (193), and an increase of 1 additional hull in the War Fighting Improvement Program (WIP) and 49 additional alterations on destroyers and targets (54); increase due to the delivery of two additional air cushioned landing craft and six additional contractual work years to support the increasing backlog of craft modifications and production engineering change proposals for backfit on the delivered craft. These modifications result in additional reliability and maintainability checks and engineering design and configuration management efforts, all of which will result in increased operational capability and less maintenance requirements (708).

4) AIRCRAFT CARRIER SYSTEMS ENGINEERING - Increase in

4,451

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

the support of 8 Navigation Facility Certifications and 20 reliability upgrade efforts (330); additional engineering analysis of O2N2 Producer Systems to improve performance (205); and O2N2 system fleet support, technical assistance, and ship checks in maintenance of installed cryogenic equipment to reverse deteriorated condition of equipment (720); additional heat stress control and prevention efforts (150); examination of CVN 68 class high pressure air system and development of repair standards (310); additional other auxiliary In-Service Engineering (ISE) efforts (126); development of Fiber Optics specifications, standards, handbooks, and qualified products certifications (190); continued development of inspection and repair procedures in propulsion engineering in the Boiler Overhaul Improvement Program (BOIP) tailored to failure courses (145); and for the development of analytical procedures and tools to determine the residual service life of cracked metal components (145); increase of 9 additional workyears for CV/CVN Combat System Engineering including support for CVN-68 Class Warfighting Improvement Program (WIP) update and overhaul design guidance for CV 59, 67, CVN 65 and 70, CV 64 SLEP (748). Carrier Technical Support increase provides for planning and oversight to achieve within-cost execution of ship maintenance and modernization during industrial availabilities (69) and for 3 more reports/analyses for engineering and logistics to refine and resolve problems in operational carriers (140). Other increases stem from a review of Aircraft Elevator test reports for CV-63 and the monitoring of elevator fluid for toxicity (1,173).

580

5) ELECTRONIC SYSTEMS ENGINEERING - Increase reflects additional support to inoperable systems in the Interior Communications Technical area (72); two additional workyears of In-Service Engineering Agent (ISEA) support for Navy Tactical Data Systems (NTDS) (111); additional GPETE

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

8. Reconciliation of Increases and Decreases (continued)

requirements processed and 150 additional GPETE allowances for fleet and shore activities (214); funding support for electronic test and repair equipment (53); and additional support for the measure Central Data Base Facilities (CDBF) effort, the Common Abbreviated Test Language for All Systems (C/ATLAS) effort and joint services automatic testing program (130).	932
6) ELECTRONIC WARFARE - Increase results in additional support of the AN/MLQ-4(V)1 Programs Improvement Model beginning in FY 1990, increased AN/MLQ-4 support and increased support and routine maintenance of antenna systems (359). Increased AN/SLQ-17 support to be accomplished by one activity vice two beginning in FY 1990 as part of program phase-out, with contractor supporting this program assuming many of the In-Service Engineering Agent's (ISEA) engineering and technical functions (242); increased Decoy equipment installations and the complexity of the launching systems (221); and initial Infrared Search and Target Designation (IRSTD) funding for program as it transitions from Full Scale Engineering Development (FSED) to production (110).	
7) TECHNICAL PUBLICATIONS - Increase reflects the completion of an additional 398 technical manuals and an increase in reprint actions.	5,054
8) COMBAT SYSTEMS SUPPORT - Increases reflect an increase of Radiation Hazards (RADHAZ) surveys to identify, correct and document personnel hazard problems and continuation of problem quantification, resolution and correction to protect ship's force (405); an additional workyear of support for the Shipboard Electronics System Evaluation Facility (SESEF) in the Total Ship Test Program (88); start-up of the Combat System Operational Sequencing System support on 8 ship classes (2,732); added total ship test pre-deployment operational support of Combat System Demonstration Test Packages (111); and higher unit costs	5,156

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

due to the increased complexity of ships in industrial availabilities (19); increase of .7 workyear of support to update standards and test procedures for explosive and ammunition (55); increase of 3 additional ship classes in the Readiness Improvement Program (RIP) and continuation of the Readiness Based Sparing (RBS) analysis project, which provides for institutionalizing RBS for new construction (1,625); additional Quality and Reliability Assurance ship activities for non-destructive testing certification (99); and added efforts for Naval Shipyard Quality Improvement (22).

830

9) RELIABILITY AND MATERIAL HANDLING - Increase funds engineering efforts for 6 ships in FY 1990 for support of Landing Force Operational Material (LFORM). LFORM Repalletization is required to reduce the flammability of ammunition packaging onboard amphibious ships through the use of metal pallets. Increase also supports 2 additional workyears for Handling, Storage and Shipping Support for Explosive Ordnance.

1,824

10) NUCLEAR PROPULSION TECHNICAL LOGISTICS - Supports unavoidable increased workload associated with the most intensive refueling/defueling period in U.S. Navy history. Specific refueling efforts include execution of FY 1990 CGN first-of-a-class refueling, preparations for FY 1991 refueling of CVN 65's eight reactor plants, and preparations for first-of-a-class refueling of SSBN 726. Also provides essential support of six new submarines entering the operating fleet and supports increased inspection and analysis of installed reactor plant components, necessitated by recent inspection results.

1,126

11) OPERATING REACTOR PLANT TECHNOLOGY - Funds increase in laboratory efforts to support Naval shipyards' execution of the heaviest nuclear refueling/defueling period in Navy history, beginning in 1990. This effort is further complicated by CGN 36 first-of-a-class refueling and the unique CVN 65 eight reactor plant refueling. Also supports

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

six new submarines entering the operating fleet.

5. Program Decreases

A. Other Program Decrease in FY 1990
1) SURFACE WARFARE SYSTEMS ENGINEERING - Decrease reflects cessation of Classified Project. -9,188)
2) UNDERSEA WARFARE SYSTEMS ENGINEERING - Submarine Sonar Systems program is discontinued (-156). Decrease also reflects reduction in Submarine Noise Reduction program. Support for the Acoustic Measurement Facility Improvement Program (AMFIP) previously funded in Budget Activity 7 will be supported in Budget Activity 2 in FY 1990 (-1,436). -1,756
3) SURFACE SUPPORT SYSTEMS ENGINEERING - Decrease reflects reduction in Material Corrosion Controls engineering efforts to correct specifications and drawings for corrosion affected equipment and systems (-295); reduction in Hull In-Service Engineering (ISE) efforts for the Fin Stabilizer program technical documentation, configuration management and engineering analysis (-113); reduction in the ISE engineering equipment failure analysis efforts for fire fighting, electric cooling, and air conditioning equipment (-525); a reduction in the Propulsion Boiler Overhaul Improvement Program (BOIP) efforts for cost control programs, for engineering analysis of boiler age related failures of 665 Navy owned operated boilers (-567); reduction of 400 HZ power distribution installation drawings for the DD-93 class (-117); end of 2000Kw Generator program which provided preliminary engineering support for generator overhauls (-408); decrease also reflects reduced cycle studies and analysis and technical planning/engineering support for Combat Support Ships and Auxiliary and Support Craft, including decrease in feedpump support, target designation interface preparation, termination of Ready Resource Material Program, and lifeboat hardware problems

7 0347

-9,188

-3,219

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

(-680); decrease in noise standards and engine endurance tests for combat craft and and boats (-385); and reduced Navigational Systems Technical support (-129).	-283
4) ELECTRONIC SYSTEMS ENGINEERING - Decrease reflects 48 fewer GPETE technical documentations, specifications and standards (-92) and a discontinuation of the switchboard maintenance engineering programs (-191).	
5) ELECTRONIC WARFARE - Decrease reflects reduced engineering and technical support provided for the AM/SLQ-32. This decreases the level of logistics and installation support for system improvements (-225). Further, reduced engineering and technical support for the AM/MLR-1H (-4) and other Electronic Warfare (EW) support (-1). Decreased routine maintenance of ancillary equipments (-32) and decreased support for Submarine Surveillance Support Program (SSSP) Pooled Equipment (-24). Also, decreased support reflects reduced number of Cover and Deception operational systems (-771).	-1,057
6) COMMAND CONTROL - Decrease reflects discontinuation of Acoustic Communications In-Service Engineering Agent (ISEA) support for over 900 installed equipments.	-489
7) COMBAT SYSTEMS SUPPORT - Decrease reflects 2 fewer workyears for planning, combat system level design and pre-installation engineering support for combat systems engineering (-203); GIDEP reduction reflects a discontinuation of the Government Industry Data Exchange Program (-589).	-792

6. FY 1990 President's Budget Request \$ 319,003

7. Pricing Adjustments 9,978

A. Stock Fund	(7)
1) Non-Fuel	7
B. Industrial Fund Rates	(3,643)

7 0348

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

C. Other Pricing Adjustments

(6,328) 6,800

8. Program Increases

A. Other Program Growth in FY 1991

- 1) UNDERSEA WARFARE SYSTEMS ENGINEERING - Increased engineering analysis support to diesel engines and gas management systems.
- 2) SURFACE SUPPORT SYSTEMS ENGINEERING - Increase reflects an additional 4 inclining experiments (95); additional Ship Hardening engineering development efforts to solve deficiencies discovered during previous ship shock tests (100); 12 additional workyears of Engineered Operating Sequencing System (EOSS) support (1,034); FFG-7 logistics data system support (6); and an increase due to the delivery of nine additional air cushioned landing craft and the two additional contractual manyears of effort to continue the required craft modifications necessary for backfit on delivered craft (156).
- 3) AIRCRAFT CARRIER SYSTEMS ENGINEERING - Integrated logistics support increases in preparation for an additional overhaul (199); development of standard Replenishment Alongside Method (STREAM) improvements to enhance safety of transferring loads and reduce alongside time (66). In Hull, Mechanical and Electrical Engineering auxiliary and propulsion systems analysis efforts increase (132); Boiler Overhaul Improvement Program (BOIP) efforts increase (117); increase in Electrical systems effort is to identify interface and compatibility problems between ship electrical systems and loads and for engineering analysis of automatic control system corrections (615); increase in Electrical Power Improvement Capability (EPIC) to investigate main power distribution system failure (500); and an increase in Fiber Optics engineering design and development (33).

(6,800) 190

1,391

1,662

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

4) TECHNICAL PUBLICATIONS - Increase reflects the completion of an additional 157 technical manuals and an increase in reprint actions.	1,539
5) COMBAT SYSTEMS SUPPORT - Increase reflects an increase in the Combat System Operational Sequencing System support for the Total Ship Test Program (12); additional Reliability, Maintainability, and Quality support (53). Further, increase for Combat System Engineering Support (187).	252
6) RELIABILITY AND MATERIAL HANDLING - Increase reflects additional support for 1 ship in FY 1991 for Landing Force Operational Material (LFORM). LFORM Repalletization is required to reduce the flammability of ammunition packaging onboard amphibious ships through the use of metal pallets.	276
7) NUCLEAR PROPULSION TECHNICAL LOGISTICS - Increase provides essential support of new nuclear powered ships (CVN 72 and five new submarines) entering the operating fleet. Also, supports execution of the CVN 65 eight-reactor-plant refueling and continued high level of refueling/defueling and reactor component inspection activity.	1,415
8) OPERATING REACTOR PLANT TECHNOLOGY - Increase funds laboratory support of heavier nuclear ship refueling/defueling workload.	75

9. Program Decreases

-6,016

A. Other Program Decreases in FY 1991
 1) CONTRACTOR SUPPORT CONVERSION - Decrease reflects the FY 1991 effect of the 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

(-6,016)
 -2,300

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

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

2) SURFACE WARFARE SYSTEMS ENGINEERING - Decrease reflects reduced engineering and related efforts reflecting 13 fewer workyears of support. Specifically, reduced HARPOON Weapon System Support (-52); reduced support for the Close-In Weapons System (-287); reduced engineering and logistics support to maintain operational readiness and safety of In-Service Gun Systems (-9); reduced Gun Fire Control Systems (-160); and reduced support for LAMPS MkIII Systems (-14). Other decreases are reflected by reduced In-Service Engineering Support for Explosive Ordnance Disposal (EOD) System, including 1 less workyear (-137); and reduced engineering support for Mine Systems (-7).

-666

3) UNDERSEA WARFARE SYSTEMS ENGINEERING - In the Deep Sea Submergence Program there will be a decrease in design support for the DSRV's and a reduction in engineering support for other DSSP vehicles (-264). Decreases occur in the Navigation Systems Technical Support program for TRANSIT/OMEGA system (-165); and in Hull, Mechanical, and Electrical Engineering reduced support for propulsion and electrical systems (-321). Submarine Technical Support will incur two fewer ship visits for battery maintenance due to fewer ship availabilities (-153) and there is one less submarine noise engineering investigation/resolution (-10) along with other decreases (-1).

-914

4) SURFACE SUPPORT SYSTEMS ENGINEERING - Decrease reflects reduction in the developmental safety and performance improvement efforts for Underway Replenishment handling devices (-138); decrease in the analysis of ship system electrical components (-134) and a reduction in other hull and mechanical ship system engineering efforts (-110); decreased modernization efforts due to one less technical data issue manual being

-519

7 0351

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

prepared (-46); and reduced technical and engineering support for boats and craft (-56); and reduced Navigational System Technical Support (-35).	-586
5) AIRCRAFT CARRIER SYSTEMS ENGINEERING - Decrease in carrier technical support due to two fewer report/analysis (-124); and less life cycle support (-62); decrease in support for 1 reliability upgrade effort for conventional navigation systems (-14); decrease in O2N2 systems support (-187); and reduction in engineering support for CV/CVN Combat System Engineering (-199).	-26
6) ELECTRONIC SYSTEMS ENGINEERING - Decrease reflects reduction in the weapons control switchboard programs (-1); decrease in Navy Tactical Data System (NTDS) program (-4); General Purpose Electronic Test Equipment (GPETE) Technical Operations (-5); reduced electronics test and repair equipment support (-9); and decrease in test and measurement system (-7).	-212
7) ELECTRONIC WARFARE - Decrease results in less support to AN/WLQ-4 and decrease in support and maintenance of Electronic Support Measure (ESM) antenna systems (-168); and reduced support of ancillary equipments (-14) and Submarine Surveillance Support Program (SSSP) pooled equipments (-21). Further, decreased Electronic Warfare (EW) equipment support (-1) and reduced technical and management support for offboard deception devices (-8).	-545
8) COMBAT SYSTEMS SUPPORT - Decrease in the Shipboard Electromagnetic Compatibility Improvement/ Electromagnetic Interference (SEMCIP/EMI) program reduces submarine assessments/tech assists and deletes fix installations on two carriers and one amphibious combatant (-513); In-Service Explosives Program (-1); decrease in Quality and Reliability ship activities non-destructive testing certification, Naval shipyard quality improvement (-4); reduced support for Readiness Based Sparing (RBS) (-27).	

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

9) RELIABILITY AND MATERIAL HANDLING - Decrease reflects reduced support for Handling, Storage and Shipping support for Explosive Ordnance including 2 less workyears.

-248

10. FY 1991 President's Budget Request

\$ 329,765

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

A. SURFACE WARFARE SYSTEMS ENGINEERING

This program provides for engineering efforts which include logistics, technical support, configuration management, technical documentation, reliability and maintainability analyses, and safety improvements which will improve fleet performance and maintenance of the Navy's surface weapons systems. Specific systems supported are: HARPOON, Close-In Weapon Systems (CIWS), major gun weapons and gun fire control systems, sonars and data processors on the LAMPS MK III system. This program also supports engineering and technical documentation for explosive ordnance disposal, and for mine combat systems. The number of ships or systems supported is provided as an indicator of the size of the population supported by this funding. However, funding requirements for engineering efforts are not only related to the size of the population, but will vary depending on such factors as the number of variants in a particular system, the age of the system and the system's performance.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
	\$	\$	\$	\$
Total Funding	29,078	17,577	22,183	21,897

SUPPORT FOR MAJOR SYSTEMS:
 Number of systems In-service

HARPOON/No. of ships	205	211	216	222
CIWS	409	453	504	527
Gun Weapons Systems	600	635	739	724
Major Gun Fire Control Systems	196	201	192	195
LAMPS MK III	60	74	90	103
EFFORTS PERFORMED /MYS				
ENGINEERING & RELATED EFFORTS	22,117	409	13,009	228
			15,651	259
			15,300	246

7 0354

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

OTHER ENGINEERING SUPPORT:

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Explosive Ordnance Disposal (WYs)	2,591	1,850	5,249	5,278
Systems Maintained	30	24	62	61
Classified Project	3,068	1,716	0	*
Mine Systems	1,302	1,002	1,283	1,319
Mine Engineering (Units are no. of technical projects)	21	14	16	16

* EOD Maintenance realigned to Other Ship Systems Maintenance activity group beginning in FY 1989.

B. UNDERSEA WARFARE SYSTEMS

This program provides for engineering efforts such as logistics, technical support and documentation, life-cycle maintenance planning, tests and trials, technical documentation, reliability and maintainability analyses, and safety improvements which will improve fleet performance and maintenance of the Navy's undersea warfare systems and submarines, efforts for corrosion control, MK 48 Torpedo Target Certification, and advanced navigation systems. Specific systems supported are: the HARPOON, sonars including AN/BQR-15 and 19, and submarine propulsion systems. This program also supports state-of-the-art engineering investigations, the Acoustic Measurement Facility Improvement Program (AMFIP), and damage control avoidance. Support for submarines and submarines addresses Deep Sea Submergence Rescue Vehicles (DSRVs), ASR-21 submarine rescue support ships, Deep Sea Vehicles, NR-1 and other vehicles. Submarine Technical Support addresses safety audits, atmosphere control and battery maintenance. Finally, the Navigational System Technical Support Program determines the operational reliability/performance as well as in-service engineering agent functions related to inertial navigation systems and advanced gyrocompasses. Funding will vary depending on such factors as the number of variants in a particular system, the age of the system and the system's performance.

Activity Group: Engineering Support Services (continued)

Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding	13,363		17,301		25,296		25,368	

HARPOON/# of ships	(265)	90	(235)	92	(254)	98	(263)	101
DSSP	(9,431)		(7,069)		(8,114)		(8,106)	
DSRV's (Manyear, MY)	4,808	36	3,478	25	3,514	25	3,411	24
ASR-21 Class (MY)	989	10	502	5	520	5	535	5
DSV's (MY)	913	10	697	7	700	7	720	7
NR-1 (MY)	1,123	9	656	4	1,131	9	1,172	9
Other Vehicles (MY)	1,598	13	1,736	13	2,249	18	2,268	18
Submarine Sys. Sonars								
# of Operational	(152)	24	(170)	24	0		0	
Sonar Months								
Nav. Sys. Tech. Spt. *								
# Ships Supported			(1,718)	160	(1,760)	160	(1,650)	160
Hull Mech. & Elec. Eng.								
Hull Systems					(992)		(1,000)	
Shipboard Cranes					296		261	
Cargo/Weapons Elevator					696		739	
Propulsion Systems	(60)		(112)		(1,730)		(1,731)	
Shaft Seals	60		112		813		691	
Thrust Bearing Vib. Reducer					500		400	
Diesel Engine Improvement					417		640	
Auxiliary Systems					(1,692)		(1,795)	
Atmosphere Material Evaluation					300		300	
GAS Management System					200		300	
Dart 02N2					500		500	
Other Auxiliary System					692		695	
Electrical Systems					(496)		(400)	

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Submarine Generator Sets				
Submarine Log & Eng Support *				
Submarine Safety		(6,297)	(8,256)	(8,357)
Pre Trial Cert. Audits		513	1,593	1,640
and Functional Audits				
SUBSAFE Design Rev		3	13	13
Ship Systems Hull,		65	95	95
Mech. and Electric.		5,516	6,274	6,315
# Avails. Sptd.				
# Ship Visits Battery Mnt.		25	34	31
# Mandays for Battery Mnt.		75	118	116
Electronic & Navigational		84	129	147
Engineering		104	166	171
Temporary Alt. Guidance				
Manual Maintained				
Logistics Support/Manyyears		164	223	231
Submarine Noise Reduction				
Eng Inv and Study				
Tasks	(317)	3	(2,002)	16
AMFIP Operational **		4	(2,002)	15
Costs	(3,138)	2	(1,395)	1

* These programs realign from the Contractor and Technical Maintenance Support activity group in FY 1989.

** This program continues in the Naval Sea Systems Command Budget Activity 2 in FY 1990.

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

ADDENDUM: Deep Sea Submergence Program Growth (DSSP).

1) SUBMARINE NR-1 PROGRAM

The submarine NR-1 has many unique equipments and sensors that were designed specifically for this one of a kind deep diving submarine. The refueling and later overhaul of NR-1 is presently scheduled to begin in October 1990 (FY 1991). It will last for 20 months. Planning for the refueling and overhaul will commence in October of FY 1990 and complete at the end of FY 1991.

During the last and only overhaul of NR-1 in 1983, full-time on-site support from NR-1 Hull, Mechanical and Engineering and design agents (Electric Boat Division of General Dynamics and Unisys) was required for technical liaison with Portsmouth Naval Shipyard personnel who were unfamiliar with NR-1's special repair requirements and systems. The 1983 overhaul of NR-1 required a total of 8 full-time planning yard agents from the Electric Boat Division and UNISYS at the shipyard, as well as engineering support at the contractor's plants. It took 10 months.

The refueling of NR-1 will also require on-site and plant support from planning yard agents. This is the first time the submarine has been refueled. It will require extensive preplanning and coordination of the nuclear and non-nuclear work items to avoid delay of the project and expensive rework later. The experience level that Portsmouth NSY has attained from the previous overhaul is expected to reduce the on-site engineering support that was required during FY 1983. At least 1200 mandays of support will be required in FY 1990 and another 1200 in FY 1991.

Engineering: 5 men x 12 months x 20 day/month = 1200 mandays

Funding:

FY 1990: \$500 FY 1991: \$500

2) UNMANNED VEHICLE PROGRAM

The Tethered Unmanned Work Vehicle Systems (TUWVS) are commercial remotely operated vehicle systems that support deep ocean (5000 fsw) recovery operations. Typical operations of these systems include recoveries of ship's anchors, propellers, munitions, aircraft, and location/deployment of acoustic devices on the ocean bottom. TUWVS use television cameras, sonars, thrusters, and robotic arms to locate bottom objects, maneuver the vehicle and recover objects. Procurement of these vehicles occurred in FY 1986. Procurement of equipment such as tools and winches to support the recovery operations was not. In FY 1990,

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

\$200 thousand is required to procure the design of recovery winches, lines, slings and tools that are operated by the robotic arms on the vehicles. In FY 1991, \$150 thousand is required to procure design of a submarine rescue package that can be delivered by the TUVS to a disabled submarine as a fast response prior to arrival of the Deep Sea Rescue Vehicle's (DSRV's). The package will provide needed stores, medical supplies and equipment to disabled submarine survivors that can be retrieved through the submarines emergency escape hatch.

Other commercial equipment (not the TUVS) operated by the Unmanned Vehicle Detachment of Submarine Group One was provided by the Commander, Submarine Pacific Fleet (COMSUBPAC) to support operations prior to the delivery of the TUVS. The equipment is still used but has been without Integrated Logistic Support. In FY 1990, \$300 thousand will be used to procure data packages:

Engineering Drawings: 500 x \$500/drawing = \$250
 Provisioning Technical Documentation: \$50
 one-half manyear Integrated Logistic Support: \$300

In FY 1991, \$350 thousand will be used to develop a comprehensive operations and troubleshooting manual for the RCV-225 Remotely Operated Vehicle (ROV) team equipment. This team consists of a 3500 fsw capable ROV, side look sonar system and corresponding surface and subsurface navigation equipment. The manual will supplement existing commercial equipment manuals originally provided with the systems. A similar manual for the TUVS in FY 1988 cost \$378 thousand.

	FY 1990	FY 1991
Submarine NR-1 Refueling/Overhaul	500	500
Tethered Unmanned Work Vehicle Sytems	200	150
Integrated Logistic Support	300	350.
DSSP above level of effort growth (000's):	1,000	1,000

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

C. SURFACE SUPPORT SYSTEMS ENGINEERING

This program funds seven main efforts. The first effort is Testing Analysis and Reviews which provides near term survivability engineering improvements for active Navy ships; performs inclining experiments to determine displacement and center of gravity data necessary to ensure that ships do not exceed naval architectural limits and thereby threaten survivability; provides management guidance and technical support to apply lessons learned from shock tests; prepares reports from investigations conducted by the survivability review group (SRG) which identifies changes in ship design practices, specifications and standards which will enhance the resistance of ships to damage by enemy weapons; and provides for increased ship survivability by improvements to shipboard damage control systems and equipments through equipment test and evaluations. Technical Documentation provides detailed ship specific procedures for operating propulsion plants under routine steaming and under specific casualty modes. Underway Replenishment provides resources to improve the reliability and maintainability of the cargo/weapon elevator, vehicle package conveyor and Standard Replenishment Along Side Method (STREAM) operation. Hull, Mechanical & Electrical Engineering consists of ten discrete functional areas:

- * Materials Engineering which reduces life cycle costs and improves material reliability;
- * Hull support which provides life cycle engineering support to critical shipboard hull systems;
- * Auxiliary funding provides for corrective actions to increase and maintain the effectiveness of auxiliary systems installed in the fleet;
- * Propulsion support provides for engineering and technical support of propulsion systems, chiefly focusing on boiler overhauls;
- * Damage control which provides near term survivability of improvements for active Navy ships against the threat of fire, chemical warfare, electromagnetic pulse, etc.;
- * Electrical support funds corrective actions to increase and maintain the effectiveness of electrical systems;
- * Fiber Optics provides for the accelerated introduction of Fiber Optic Technology into Navy ships.
- * Revolution-at-Sea provides for the improvement of Naval ship designs by identifying, synthesizing and

Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

integrating emerging technologies;

- * USS Stark support which provides funding for the Navy Survivability Review Group (SRG) which is analyzing the damage to the USS Stark and determining applications of lessons learned.
- * HM&E Standards provides design and development effort to reduce the number of configurations of specific HM&E equipment.

The Surface Combat Technical Support effort maintains the readiness of all surface ships by providing technical oversight in the diagnosis, planning and execution of modernization and repair work. In addition, management and technical expertise are provided to ensure that documentation, support, spare parts and personnel are available to support the fleet. Efforts can be grouped by support of alterations in the fleet modernization program, logistics support for ship classes, and technical and engineering support that includes headquarters expertise applied to emergent problems. This program also supports the phased maintenance program for Coast Guard medium endurance cutters (WMEC), as well as the Fleet Rehabilitation and Modernization (FRAM) program for Coast Guard high endurance cutters (WHEC).

The CSS/ASC Boat Technical Support effort consists of the Craft Improvement Program (CIP) for all combatant craft, boats, landing craft, service craft, floating drydocks, and berthing barges as well as modernization, technical and engineering support.

The Navigation System Technical Support program maintains the material readiness of surface ship navigational systems. Specifically, the functions financed by this program are logistics management and determination of operational reliability/performance and in-service engineering agent functions related to inertial navigation systems and advanced gyrocompasses and conventional navigation systems.

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS	\$	UNITS
Total Funding	45,001	31,121	38,798	40,341
TESTING ANALYSIS & REVIEWS	(6,274)	(4,652)	(8,208)	(8,664)
QPL Tests	457	0	0	0
Special Tests	400	0	0	0
Other Tests	283	0	0	0
Inclining Experiments	15	8	16	20
TECHNICAL DOCUMENTATION	(7,427)	(2,638)	(4,556)	(5,727)
Propulsion Program	5,992	2,638	4,556	5,727
Engineered Operational Sequencing System (EOSS)				
# of Ships	410	417	418	419
EOSS WYs	63	22	43	55
Tech Documents prepared	1,121	*	*	*
Habitability	314	0	0	0
UNDERWAY REPLENISHMENT	(4,901)	(4,449)	(5,522)	(5,459)
Cargo Weapons Elevator				
UNREP Ao (Goal=95)	.90	.90	.90	.89
Vertical Package Conveyors	1%	1%	1%	1%
Reduce Personnel Injuries				

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Standard Replenishment Along Side Method CASREP reductions	17	18	25	24
HULL, MECH, & ELEC ENG	(26,399)	(8,587)	(9,600)	(9,536)
Materials Corrosion Eng	2,707	1,557	1,325	1,313
Hull ISEA effort	1,649	533	438	438
Auxiliary ISEA effort	3,357	2,136	1,560	1,548
Propulsion BOIP ISEA	2,824 2,392	2,237 246	1,735 258	1,730 258
Damage Control ISEA effort	2,152	++	++	++
Electrical Current Limiting Devices 2000 KW Generator EPIC/Circuit Breakers ISEA effort	212 304 779 3,119	219 394 325 533	110 0 786 1,532	0 0 828 1,563

7 0563

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
Fiber Optics	2,904	0	503	505
USS STARK Analysis	4,000	0	0	0
HM&E Standards	+++	407	1,352	1,353

* Transferred to Federal/Military Standards and Specifications beginning in FY 1989.
 ++ Transferred to Ship Trials and Tests beginning in FY 1989.
 +++ Transferred from Federal/Military Standards and Specifications beginning in FY 1989.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
SURFACE COMBAT	*	(2,939)	(3,424)	(3,381)

TECH SPT

1. Modernization:				
Target Designation	*	8	8	8
Interface, # Prep.				
CG/LGN Shock Test,	*	0	1	1
# Classes				
Coast Guard				
Tech. and Eng. Anal.	*	4	4	4
# Reports and Anal.				
BB 61 Class Life	*	3	4	4
Cycle Mnt., # Hulls				

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
	\$	\$	\$	\$
Avail. Software and Planning Supt. #ALTS	*	502	551	545
2. Tech. & Eng. Spt.: FFG-7 Logistics Data Sys Spt., # WYS	*	10	10	10
BB-61 Class Tech. Issue Feedback Spt. # Feedback Issues	*	0	100	100
Boiler Spt., # Eval.	*	86	237	237
3. WIP Support: (# of Hulls)	*	91	92	92

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
	\$	\$	\$	\$
CSS/ASC/BOAT TECH SPT	*	(6,810)	(6,701)	(6,899)
1. Modernization: # Ship Classes	*	44	44	45
2. Tech. and Eng. Spt: # Ship Classes	*	44	44	45
3. Craft Imp. Prog: WYS	*	16.5	13.1	13.3

7 0365

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	UNITS	\$	UNITS
4. LCAC Life Cycle Support				
(# of craft)		*	16	18
# of WY's (effort)		*	47	53
NAVIGATIONAL SYS				
TECH SPT	*	(1,046)	(787)	(675)

* Transfers from Contract Technical and Maintenance Support activity group beginning in FY 1989.

D. AIRCRAFT CARRIER SUPPORT SYSTEMS

This program provides planning, system level design, and engineering support for all elements of aircraft carrier support systems. There are five main efforts to this program: 1) Combat System Engineering Support - addresses pre-installation engineering and planning support for all elements of the CV/CVN class ships combat systems. This includes Warfighting Improvement Program Engineering (WIPE), Combat System In-Service Engineering Agent (CSISEA) support and total ship combat system engineering. 2) Underway Replenishment improves reliability and maintainability of aircraft elevators and cargo weapons elevators through standardization and development of simplification alterations, reprovisioning actions, and technical documentation revisions. 3) Hull, Mechanical & Electrical Engineering (HMAE) - engineering support for ship systems. This effort consists of 5 discrete functional areas: (1) Auxiliary funding provides for corrective actions to increase and maintain the effectiveness of Auxiliary systems installed in the fleet. Funding supports work on only high visibility, critical systems that have a direct effect on the mission capability of our ships. (2) Propulsion provides for engineering and technical support of propulsion related systems. The main effort is the Boiler Overhaul Improvement Program (BOIP) in which planning and quality assurance are improved by better definition and execution of repairs resulting in shorter, less expensive, higher quality overhauls. (3) Damage Control provides near term survivability improvements for active Navy ships against the threat of fire, chemical warfare, flooding, electromagnetic pulse, insensitive munitions, the hazards of toxic chemicals and unsafe equipment and procedures. This effort has been

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

realigned to Surface HAME beginning in FY 1989. (4) The Electrical line funds corrective actions to increase and maintain the effectiveness of electrical systems installed in the Fleet by providing modification kits and solutions to electrical CASREP reports. (5) The Fiber Optics effort provides for the accelerated introduction of fiber optics technology into the Navy's ships and to develop and validate Navy standards and specifications for fiber optics components. 4) The Carrier Technical Support program maintains the readiness of all aircraft carriers by providing technical oversight in the diagnosis, planning and execution of modernization and repair work. In addition, management and technical expertise are provided to ensure that documentation, support, spare parts and personnel are available to support the fleet. Efforts can be grouped by support of alterations in the fleet modernization program, logistics support for carriers, and technical and engineering support that includes headquarters expertise applied to emergent problems. 5) The Navigational System Technical Support program maintains the material readiness of carrier navigational systems and the carrier navigation facility. Specifically, the functions financed by this program are logistics management and determination of operational reliability/performance and in-service engineering agent functions related to inertial navigation systems and advanced gyrocompasses and conventional navigation systems.

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding	7,625		8,259		12,565		14,028	
COMBAT SYSTEMS ENG No. of workyears	(1,284)	16	(448)	6	(1,216)	15	(1,053)	13
UNDERWAY REPLENISHMENT	(2,101)		(4,657)		(5,995)		(6,248)	
Cargo Weapons Elevators CV Ao (Goal= .90)		.81		.82		.83		.83
Aircraft Elevator								

7 0367

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
	1%	1%	1%	1%
CASREP Reduction				
HULL, MECH & ELEC ENG	(4,240)	(2,085)	(4,152)	(5,492)
Auxiliary				
O2N2 Systems	1,085	769	1,719	1,582
Misc. Equipment	570	0	0	0
Engineering effort	550	593	1,200	1,300
Propulsion				
Engineering effort	300	73	225	320
Boiler Overhaul				
Improv. Program (BOIP)	491	350	508	625
Damage Control	794	0	0	0
Electrical				
Engineering effort	50	0	0	615
Electrical Power Improv.				
Capability (EPIC)	0	0	0	500
Fiber Optics				
Engineering Des/Dev	400	300	500	550
CARRIER TECH SUPPORT	*	(992)	(865)	(902)
# of Complex Overhauls and				
Selected Restricted				

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Availabilities				4/25		4/25		5/25
1. Modernization	*		401		346		275	
2. Tech & Eng. Support	*		364		316		167	
3. Logistics	*		227		203		460	
NAV. SYS. TECH. SPT.	*		(77)		(337)		(333)	

E. ELECTRONIC SYSTEMS ENGINEERING

This program provides maintenance engineering support services for Electronic Test and Repair Equipment, Navy Tactical Data Systems, Weapons Control Switchboards, Ship Interior Communications Equipment, Test and Monitoring Systems and General Purpose Electronic Test Equipment (GPETE). Efforts include in-service engineering (ISE) to develop, review and verify field changes, maintain equipment data, plan equipment modifications, manage equipment and ship systems configuration changes, develop and review technical manuals, documentation and courses, and distribute and verify computer programs.

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding	9,247		6,996		7,527		7,729	
Electronic, Test & Repair Equip.		26		22		22		22
Navy Tactical Data Systems		29		20		22		22
Weapon Control Switchboards		10		6		8		8
Other Switchboards		6		3		0		0
Shipboard Interior Communications Equipment		9		6		6		6
Test and Monitoring Systems	24.4		16.5		18.8		18.8	
GPETE Tech Ops								
GPETE Requirements Processed (000's)	25.1		20		20.1		20.2	

F. ELECTRONIC WARFARE

Provides a wide spectrum of electronic warfare support to the fleet including: 1) Off-board Cover and Deception (OCD), which consists of specialized expendable air and/or surface deployable buoys for ocean surveillance and command, control and communications (C3); 2) Electronic Warfare consisting of radar and antiship missile warning and defense systems; 3) Electromagnetic Capability and World Administrative Radio Conference (EMC/WARC) control, which includes support to Chief of Naval Operations flag boards on Electromagnetic Environment Effects (E3) and the technical evaluation of E3 reports as well as WARC support, which involves the technical evaluation of the impact of special WARC's and the development of technical

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

alternatives to meet Navy requirements; and 4) Submarine Surveillance Support Program (SSSP) which provides nuclear attack submarines with the capability to analyze activities of foreign and threat military systems. Support is provided for intermediate maintenance activity, fleet maintenance activity, configuration management, and engineering support.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	15,907	11,816	12,100	11,447
Electronic Warfare (Fleet Units)				
Offboard Deception	(1,549)	(1,027)	(300)	(301)
Decoys (OODs)				
OOD Buoys	90	290	300	400
AN/SLW-1	12	12	12	12
Computer Systems	4	4	4	4
Radar and Anti-Ship Missile (ASM) Warning and Defense Systems	(5,696)	(4,506)	(5,003)	(4,651)
AN/SLQ-32	300	315	325	336
AN/SLQ-17	12	12	10	5
AN/WLR-1	12	19	21	23
Other EW Equipment	582	582	582	582
Decoys	286	290	300	310
Submarine Surveillance Equipment (SSE)	(7,364)	(6,283)	(6,797)	(6,495)
ESM Systems	343	349	349	349
Ancillary Equipment	562	562	562	562
SSEP Pooled Equip	143	143	143	143

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Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
EMC/WARC				
EMI Training	(1,298)	*	*	*
Plan Updates	70			
EMI Test	120			
Equip Evaluations	4			
NATO EMI	95			
Spt (WYS)	1			
Acquisition Reviews	258			
for EMI Problems	132			
Electro Magnetic				
Spectrum Eng	625			
Geographic Areas				
Studied & Organized	13			
Electro Magnetic Eng	90			
Program Plan Updates	1			
EMP Standards	40			

* Transfer to Space and Naval Warfare Systems Command starting in FY 1989 (except for EMP Standards, which transfers to the Theatre Nuclear Warfare program in the Procurement Operations activity group).

G. TECHNICAL PUBLICATIONS

The Technical Publications program administers, produces and reproduces technical manuals and engineering drawings and updates technical manuals. The Advance Change Notice/Technical Manual Deficiency Evaluation Reports (ACN/TMDER) updates manuals when life or safety is involved. The Engineering Drawing Management Program (EDMP) manages and controls three NAVSEA engineering drawing repositories. The technical manual program provides logistic/distribution services in aid of manual revision. The reprint program provides approximately 5 to 6 thousand reprint actions consisting of 400,000 copies per year.

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
Total Funding	33,445	25,654	31,789	34,300

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
Tech Manual Operation	19,500	19,500	19,500	19,500
TM Dist Lists	4,800	4,800	4,800	4,800
Mailing Labels	6,900	6,900	6,900	6,900
TM Ident Numbers	9,000	9,000	9,000	9,000
Stocking Actions	40,000	40,000	40,000	40,000
Fleet Request Processed	6,800	6,800	6,800	6,800
Reprints Coord	1	0	0	0
ADP Conversion				
Tech Manual Reprint	4,900	4,816	5,247	5,397
# Reprint Actions				
Tech Manual Update	4,251	5,174	5,426	5,280
Backlog (EOY)	1,077	748	1,146	1,303
TMs completed	2,000	1,000	1,000	1,000
Add'l Deficient TMs	5,174	5,426	5,280	4,977
Backlog (EOY)				

(Performance Criteria has been changed to more accurately display the program.)

H. COMMAND AND CONTROL

This program provides in-service engineering support for all underwater acoustics communications equipment in the Fleet (including the AN/WQC-2A, underwater telephone), installation of Probe Alert equipment, and installation of technical improvements to underwater acoustic communications equipment. Units are number of installations (Instl).

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding		472		467		0		0
1. Probe Alert Fleet Spt		106		106		0		0
2. Probe Alert Instl		65		7		1		0
3. Fleet Spt for Other Acoustic Communications		227		277		0		0
4. AN/WQC-2A Change Instl		74		23		23		0

I. COMBAT SYSTEMS SUPPORT

Program provides engineering support for combat systems. Specific efforts funded include: the Shipboard Electromagnetic Compatibility Improvement Program (SENCIP), which corrects electromagnetic interference problems either during or after industrial availabilities or during deployment for operationally degrading situations; management of the Program Planning Combat System Management Information System, which is used to track and coordinate information on all modernizations and conversions; engineering for integration of combat systems prior to an overhaul; and the development and assessment of combat system and structural tests for ships undergoing a major industrial availability. This program also supports the Joint Logistics Command Government/Industry Data Exchange Program, which provides technical data banks on the Department of Defense's parts and components, and the National Authority for Explosives to the NATO Ammunition Groups as well as the development of engineering support for explosives. This program also establishes policies and performance criteria and provides assistance in the quality assurance discipline to implement Defense, Navy and NAVSEA guidance to assure product quality and reliability among ships and weapon systems during design, development, acquisition, operation and maintenance.

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding	25,378		19,831		24,939		24,747	
ELECTROMAGNETIC COMPATIBILITY AND INTERFERENCE PRGRM	15,294		13,805		14,816		14,497	
Industrial Availabilities (Ships)	76		57		60		63	
Quick Response Assists	145		140		143		134	
Pre-Deployment Readiness Assessments; Tech Assists:								
Surface	305		277		239		240	
Submarine	0		0		32		20	
COMBAT SYSTEMS ENGINEERING FOR CONVERSIONS/MODERNIZATIONS (WYs)	2,344		1,265		1,121		942	
TOTAL SHIP TESTING	3,503		2,168		5,220		5,394	
Industrial Availabilities (ships)	134		119		111		112	
Engineering Support (WYs)	6.6		1		1		8	
Test Facilities (WYs)	2		6		7		6	
Combat System Operational Sequencing System (Ship Classes)					8		9	

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
STANDARDS AND TEST PROCEDURES FOR EXPLOSIVES & AMMUNITION (WYS)	122	103	162	166
	1.2	1.0	1.7	1.7
JOINT LOGISTICS COMMAND GOVERNMENT/INDUSTRY DATA EXCHANGE PRGRM (WYS)	910	595	0	0
	15	10		
SHIP ACTIVITIES QUALITY IMPROVEMENT	829	573	723	741
PRODUCT RELIABILITY	33			
READINESS IMPROVEMENT	1,315	454	1,935	1,964
COMMAND RELIABILITY/MAINTAINABILITY/QUALITY	1,028	868	962	1,043

J. RELIABILITY AND MATERIAL HANDLING

Program provides engineering and technical support to ensure safe handling, shipping and storage of explosive ordnance (including LHA Pallet Transporters) and metal repalletization effort for Landing Force Operations Material (LFORM) as well as development and implementation of the Reliability, Maintainability and Quality (RMQ) engineering programs which have common applications for all ships and combat systems.

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding	1,653		806		1,677		1,755	
	1,380		806		1,077		861	
MATERIAL HANDLING								
LHA Pallet Transporters								
Repaired		8		0		0		0
LFORM Repalletization	0		0		600		894	
Ships Supported		0		0		6		7
Handling, Storage and								
Shipping Support (WYs)		10		10		12		10
RELIABILITY SUPPORT								
Reliability,	273		0		0		0	
Maintainability, and Quality								
Analyses (WYs)		3.5		0		0		0

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

K. NUCLEAR PROPULSION TECHNICAL LOGISTICS

Nuclear Propulsion Technical Logistics provides for the continued safe and reliable operation of naval nuclear propulsion plants by funding essential inspection, refurbishment and engineering support of repairable reactor plant components installed in nuclear powered ships and by funding support of reactor refueling and reactor servicing equipment. Six naval shipyards (Charleston, Mare Island, Norfolk, Pearl Harbor, Portsmouth, and Puget Sound) provide the following support: (1) technical receipt inspection, refurbishment, and maintenance of Navy stock spare repairable components; (2) special handling and storage of irradiated components and equipment removed from ships; (3) inspection, modification, refurbishment and control of refueling equipment, special maintenance and support equipment and steam generator cleaning and repair equipment; and (4) essential evaluations of installed reactor plant components and systems as authorized by NAVSEA.

In addition, two reactor plant prime contractors provide continuing engineering support directly related to the repair and maintenance of reactor plant components installed in nuclear powered ships. Specifically, these contractors (1) provide technical procedures and guidance to shipyards refueling and overhauling reactor plants or repairing stock components; (2) develop field change modifications for components and equipment; (3) contract with vendors for inspection and refurbishment of reactor plant components and reactor servicing equipment; (4) maintain nuclear component technical manuals; (5) provide technical direction to the Navy Ships Parts Control Center regarding repair parts provisioning, procurement, and quality assurance; and (6) perform design work and engineering analyses in connection with installed components.

	FY 1988		FY 1989		FY 1990		FY 1991	
	\$	UNITS	\$	UNITS	\$	UNITS	\$	UNITS
Total Funding	62,810		67,552		73,307		77,191	
Shipyard Support	33,510		34,777		38,553		40,723	
Component Prime Contractor Spt	29,300		32,775		34,754		36,468	

Activity Group: Engineering Support Services (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

L. OPERATING REACTOR PLANT TECHNOLOGY

The Operating Reactor Plant Technology program funds Naval Nuclear Propulsion Program laboratory work supporting propulsion plants installed in commissioned nuclear powered ships. Specifically, the laboratories provide for operating nuclear powered ships: 1) technical support of, permanent staffs at, and operational liaison with shipyard for refuellings, defuellings, overhauls, inactivations, and tests; 2) reactor system protection analyses; 3) evaluations and tests of cores, components, and systems; 4) technical assistance for reactor operations, maintenance, and problem resolution; 5) reactor plant water chemistry control tests and evaluations; 6) radiological and environmental monitoring and analyses; and 7) maintenance of reactor plant operating manuals and radiological control manuals. This mandatory work ensures the safe and efficient performance of reactor refuellings and other support efforts essential to the continued safe and reliable operation of naval nuclear propulsion plants.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
Total Funding	47,979	49,996	68,822	70,962
	UNITS	UNITS	UNITS	UNITS
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Activity Group: Engineering Support Services (continued)
Claimant: Naval Sea Systems Command

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>	<u>72</u>	<u>103</u>	<u>110</u>	<u>110</u>
Officer	9	12	12	12
Enlisted	63	91	98	98

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

Activity Group: Contractor Technical and Maintenance Support
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

This activity group provides both contract and in-house engineering and technical services supporting maintenance and repair of all operating naval ships. It meets Fleet and Type Commanders' requests to investigate and solve problems outside of industrial availabilities. In FY 1989 the technical support program for surface ships, carriers, and submarines is realigned to the Engineering Services Support activity group and Fleet Technical Assistance transfers to Budget Activity 2 in FY 1990.

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		
FLEET TECHNICAL ASSISTANCE	16,804	15,636	15,308	14,591	0	0
SURFACE SHIP TECH SPT	15,673	11,612	11,450	0	0	0
AIRCRAFT CARRIER TECH SPT	1,048	1,021	1,005	0	0	0
SUBMARINE TECH MAINT SPT	12,389	8,180	8,059	0	0	0
Total, CONTRACTOR TECH/MAINT	45,914	36,449	35,822	14,591	0	0

Activity Group: Contractor Technical and Maintenance Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

Activity Group: Contractor Technical and Maintenance Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$ 14,591	
2. Pricing Adjustments		496	
A. Other Pricing Adjustments	(496)		
3. Functional Program Transfers		-15,839	
A. Transfers Out	(-15,839)		
1) Intra-Appropriation	-15,839		
a) FLEET TECHNICAL ASSISTANCE - The transfer of the Mobile Technical Units/Contractor Engineering Technical Services (MOTU/CETS) (-6,530) and the Direct Fleet Support (DFS) (-9,309) programs to the Naval Sea Systems Command, Budget Activity 2, is consistent with Department-wide budget and funding policy that consolidates efforts directly supporting ship maintenance.			
4. Program Increases		752	
A. Other Program Growth in FY 1990	(752)		
1) FLEET TECHNICAL ASSISTANCE - Increase reflects an additional 3 manyears and other support (313) and additional CETS support (439).	752		
5. FY 1990 President's Budget Request		\$ 0	
6. FY 1991 President's Budget Request		\$ 0	

7 0382

Activity Group: Contractor Technical and Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria.

A. FLEET TECHNICAL ASSISTANCE

Fleet Technical Assistance provides in-house technical assistance via the Direct Fleet Support Program (DFS) and Contractor Engineering Technical Services (CETS) in support of the Mobile Technical Units Program (MOTU/CETS). DFS provides maintenance support directly to the fleet for all Naval Sea Systems Command (NAVSEA) systems (except surface and missile systems and radars). This account also provides the fleet with scheduled systems equipment functional checks such as Combat Systems Readiness Trials/Reviews and Explosive Safety Reviews. The CETS in support of MOTU augments the in-house mobile technical units and repair, maintains and provides over-the-shoulder training in support of fleet weapons systems and equipments on a 24 hour basis. The program transfers to the Naval Sea Systems Command, Budget Activity 2, in FY 1990.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
	\$	\$	\$	\$
Total Funding	16,804	14,591	0	0
DFS	9,926	8,700	0	0
# of Manyears	173	143	0	0
CETS				
Manyears				
Annual Contractor	52.6	43.6	0	0
Personnel	6,138	5,151	0	0
Other Contractor	740	740	0	0
Efforts				

B. SURFACE SHIP TECHNICAL SUPPORT

The Surface Combat Technical Support effort maintains the readiness of all surface ships by providing technical oversight in the diagnosis, planning and execution of modernization and repair work. In addition, management and technical expertise are provided to ensure that documentation, support, spare parts and personnel are available to support the fleet. Efforts can be grouped by support of alterations in the fleet modernization program, logistics support for ship classes, and technical and engineering support that

Activity Group: Contractor Technical and Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

includes headquarters expertise applied to emergent problems. Also included until FY 1989 is Ship Configuration and Logistics Support Control (SCLSC), which validates the accuracy of a ship's weapon system file to a ship configuration and ties together all related logistic data (such as Tech manuals, maintenance repair cards, test equipment, etc) to a configuration record. The effort will result in a revision to the ship's Coordinated Shipboard Allowance List (COSAL) Index, allowing ships force personnel to more adequately support and maintain installed equipment and weapons systems. These efforts are directed by the separate Ship Logistics Managers for carriers, cruisers/destroyers, and combat support and amphibious and support craft. Finally, this program supports the phased maintenance program for Coast Guard medium endurance cutters (MNEC), as well as the Fleet Rehabilitation and Modernization (FRAM) program for Coast Guard high endurance cutters (MHEC).

The CSS/ASC Boat Technica support effort consists of the Craft Improvement Program (CIP) for all combatant craft, boats, landing craft, service craft, floating drydocks, and berthing barges as well as modernization, technical and engineering support. In FY 1988 the LCAC Life Cycle Support effort transferred to this program.

The Navigation System Technical Support program maintains the material readiness of surface ship navigational systems. Specifically, the functions financed by this program are logistics management and determination of operational reliability/performance and in-service engineering agent functions related to inertial navigation systems and advanced gyrocompasses and conventional navigation systems.

SURFACE SHIP TECHNICAL SUPPORT

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
Total Funding	15,673	*	*	*
Surface Combat	6,382	0	0	0
Tech Spt				

Activity Group: Contractor Technical and Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
1. Modernization:				
Shock Defic Backfit				
# of Installations	1	0	0	0
Target Designation				
Interface, # Prep.	8	0	0	0
Coast Guard				
Tech. and Eng. Anal.				
# Reports and Anal.	8	0	0	0
BB 61 Class Life				
Cycle Mnt., # Hulls	3	0	0	0
Avail. Software and				
Planning Supt. #ALTS	545	0	0	0
2. Tech. & Eng. Spt.:				
FFG-7 Logistics Data				
Sys Spt, # WYS	24	0	0	0
3. SCLSC: **				
# Hulls Validated	4	0	0	0
4. WIP Support:				
(# of Hulls)	89	0	0	0

7 0385

Activity Group: Contractor Technical and Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
CSS/ASC/Boat Tech Spt	8,044	0	0	0
1. Modernization: # Ship Classes	43	0	0	0
2. Tech. and Eng. Spt: # Ship Classes	43	0	0	0
3. SCLSC: ** # Hulls Validated	19	0	0	0
4. Logistics: (# of Classes)	6	0	0	0
5. Craft Imp. Prog: WYS	18.8	0	0	0
6. LCAC Life Cycle Support # of craft # of WYS (effort)	12 54	0 0	0 0	0 0
Navigationl Sys Tech Spt	1,247	0	0	0

* This program realigns to the Engineering Support Services activity group in FY 1989.

** Realigns to the Logistics Support Activities activity group beginning FY 1989.

Activity Group: Contractor Technical and Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
3. Logistics:				
Integ Logistics Spt	317	0	0	0
Navigationl Sys Tech Spt	84	0	0	0

* This program realigns to the Engineering Support Services activity group in FY 1989.

D. SUBMARINE TECHNICAL AND MAINTENANCE SUPPORT

This program group consists of the Submarine Logistics and Engineering Support effort and the Navigation System Technical Support effort for submarines.

The Submarine Logistic & Engineering Support program provides the engineering, technical and logistics support for all nuclear powered attack submarine fleet material readiness problems. There are four specific functional areas: 1) Submarine Safety to ensure continued safe submarine operations to design operating depths. Sub Safety includes Pre Trial Certification and Functional Audits, Quality Assurance Programs, SUBSAFE Design Reviews, SUBSAFE Piping Systems Hanger Improvement, and Atmosphere Control. 2) Ship Systems Hull, Mechanical and Electrical (HM&E) supports the rapid deployment of both private and government engineering personnel to remote operating sites to assist in resolving complex emergent technical problems beyond the capability of Forces Afloat personnel. This effort also provides for the development of new procedures, improved engineering and maintenance standards as well as technical specifications to aid in more effective equipment operations and maintenance by submarine Fleet personnel ensuring a maximum readiness condition. This area encompasses Mark 48 Torpedo Target Certification, Corrosion Protection, Steering and Diving Gear Service Life Extension, Hydraulic Systems Improvement, Propulsion Shaft and Shaft Seal Corrosion, Motor Generator Improvement, Main Storage Battery Maintenance, etc. 3) Electronics and Navigation Systems Engineering provides engineering support for the development and maintenance of the

Activity Group: Contractor Technical and Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Submarine Temporary Alteration Guidance Manual which provides specific technical guidance for the temporary installation of complex electronics equipment to support unique submarine special operations requirements. This effort also provides engineering support for the technical management and resolution of problems with submarine electromagnetic pilot log systems for measuring and displaying submarine speed; and 4) Logistics Support provides technical support for the establishment and maintenance of a comprehensive logistics and technical reference documentation package and data base supporting all nuclear powered attack submarines.

The Navigation System Tech Support program maintains the material readiness of submarine navigational systems. Specifically, the functions financed by this program are determination of operational reliability/performance and in-service engineering agent functions related to inertial navigation systems and advanced gyrocompasses and conventional navigation systems including Ships Inertial Navigation Systems (SINS), Dual Miniature Inertial Navigation Systems (DMINS), Electrically Suspended Gyro Navigation (ESG), and MSN-2/5.

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS	UNITS	UNITS	UNITS
	\$	\$	\$	\$
Total Funding	12,389	*	*	*
Sub Log & Eng Spt	10,495	0	0	0
1. Submarine Safety	852	0	0	0
Pre Trial Cert. Audits				
and Functional Audits	8	0	0	0
SUBSAFE Design Rev	90	0	0	0
2. Ship Systems Hull,	9,343	0	0	0
Mech. and Electric.				
# Ship Visits Battery	146	0	0	0
Maint.	27	0	0	0
# Avail's. Sptd.				

Activity Group: Contractor Technical and Maintenance Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	UNITS \$	UNITS \$	UNITS \$	UNITS \$
3. Combat Weapon Systems and Electronics Temp. Alt. Guidance Manual Maintained	146	0	0	0
	1	0	0	0
4. Logistics Support/Manyyears	154	0	0	0
Nav. Sys. Tech. Spt. # Ships Supported	1,894	0	0	0
	155	0	0	0

* This program realigns to the Engineering Support Services activity group in FY 1989.

IV. Personnel Summary. N/A

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

Activity Group: ASW Systems Support
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

The purpose of the program is to provide life cycle technical support, periodic testing and correctional improvements to ASW sensors and weapon systems in order to maintain ASW Surface and Submarine forces at a high level of effectiveness and readiness.

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		
ASW SUBMARINE TECH SPT	41,859	30,230	29,600	27,661	43,140	41,934
ASW SURFACE SHIP TECH SPT	28,266	23,420	22,793	27,633	28,585	28,297
ASW AVIONICS TECH SPT	2,403	4,365	4,315	3,236	3,790	3,934
Total, ASW SYSTEMS SUPPORT	72,528	58,015	56,708	58,530	75,515	74,165

7 0591

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate	\$ 58,530
2. Pricing Adjustments	2,353
A. Industrial Fund Rates	(1,268)
B. Other Pricing Adjustments	(1,085)
3. Functional Program Transfers	-303
A. Transfers Out	(-303)
1) Intra-Appropriation	-197
a) TRANSFER OF SUPPLY REIMBURSABLE FUNDING	
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 reimbursably. 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 in efforts from that performed in previous years.	
2) Inter-Appropriation	-106
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.	

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

4. Program Increases

21,687

A. Other Program Growth in FY 1990 (21,687)

1) SUBMARINE ASW TECHNICAL SUPPORT

- a) MK 48/ADCAP - Increased funding reflects 3 more Follow-on Test and Evaluation (FOT&E) runs, 51 additional Advanced Capability (ADCAP) Hybrid Simulator runs and support for the introduction of new test equipment tools, and procedures. This program provides product improvements related to fleet problems which enhance the reliability and maintainability of the MK 48 /ADCAP weapon systems, assistance to the fleet to support tactical employment of MK48/ADCAP torpedoes, and provides for the follow-on test and evaluation program which completes the evaluation of the weapon system under operating conditions and environments where little or no previous data exists. This program also provides engineering field support for MK48/ADCAP and weapon system fleet failure analysis.
- b) BQQ-5 - 10 additional Sonar Certifications, and 368 additional Technical Assists will be provided.
- c) MK 117/CCS MK 1 - Increase reflects 38 additional Product Improvement actions, 89 more In-Service Engineering maintenance actions and 56 more ships will receive logistics tracks of all their MK 117/CCS MK 1 Fire Control Equipment, spares and tools.
- d) BSY-1 - Increase provides for startup of BSY-1 block changes and additional support for 8 new BSY-1's entering the fleet in FY 1990.
- e) ASW Tests - Increase provides for 4 additional Consolidated Operability Tests (COIs), 24 additional Weapon System Accuracy Tests (WSATs), 30 additional Consolidated ASW Readiness Tests (CARTs), 68 additional Fleet Operational Readiness Accuracy Check Site tests (FORACS), 35 additional Sonar Test Assessment and

621

2,327

4,905

2,624

7,181

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

Groomings (STAGs) and increased support for FORACS development and range maintenance.	
2) SURFACE SHIP ASW TECHNICAL SUPPORT	266
a) MK 46 - 3 additional design updates, 190 additional Performance Analyses, and 16 additional Quality Assurance actions will be provided.	
b) SQO-89 - 32 additional pieces of technical documentation will be reviewed, printed, and distributed.	300
c) MK 50 - In service technical support begins at the Technical Directing Activities which support the MK 50 hybrid simulator. The simulator is needed for hardware and software development, pre-sea test checkout and post run analysis.	3,040
3) AVIATION ASW TECHNICAL SUPPORT	
a) CV ASW Module - Provides for increased equipment support and engineering support for deployment of CV-ASW 4.2.	305
b) ICAPS - (Integrated Carrier ASW Prediction System) Provides for the integration of Acoustic Performance Prediction Software Programs into 6 ASW Modules.	118

5. Program Decreases

-6,752

A. Other Program Decreases in FY 1990	(	-6,752)
1) SUBMARINE ASW TECHNICAL SUPPORT		
a) BQO-5 - Reduction in installation support.		-288
b) MK 117/CCS MK 1 - Decrease reflects 6 fewer installations receiving technical support during Restricted Overhauls, and 1 less installation supported during Depot Modernization Period (DMP).		-2,768
2) SURFACE SHIP ASW TECHNICAL SUPPORT		
a) MK 46 - 5 fewer Integrated Logistic Support (ILS) actions will occur.		-79
b) CAPTOR - Decrease reflects reduced tactics development for minefield planning. Also less thorough		-410

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

maintenance analysis for extending mean time between failures will be provided.	-80
c) NIXIE - (Not broken out in the performance criteria) NIXIE is a noise making decoy on most ships that acts as a torpedo countermeasure. Nine fewer NIXIE's will receive certification on Engineering Change (EC) number 16.	-1,620
d) AN/SQR-18A - Decrease reflects the end of technical support for the AN/SQR-18A Sonar system.	-55
e) Surface Ship Silencing - 3 fewer ships will receive technical assistance in defining and correcting acoustic deficiencies.	-80
f) Sonar Dome Rubber Windows (SDRW not broken out in the performance criteria) - 1 fewer SDRW failure will be analyzed to design reliability improvements.	-320
g) Engineering Change Accomplishment Proposal (ECAP) - 9 fewer engineering changes to improve sonar reliability will be accomplished.	-90
h) Target - (not broken out in the performance criteria) 72 fewer product improvement actions will be done on range tracking instrumentation.	-236
i) SQR 15 - (not broken out in the performance criteria) Decrease reflects end of technical support for the SQR-15 Sonar System.	-60
j) Switches and Transducers - 675 fewer Switches and Transducers will receive In-Service Engineering Agent (ISEA) coverage.	-144
k) SQS-35/38 - (not broken out in the performance criteria) Reduction reflects decreased support to accommodate hookups to the SQR-18 sonar.	-522
l) Acoustic Trials - 10 fewer Acoustic Trials will be performed.	

6. FY 1990 President's Budget Request

\$ 75,515

7. Pricing Adjustments

2,433

7 0395

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

A. Industrial Fund Rates	(1,104)	
B. Other Pricing Adjustments	(1,329)	
8. Program Increases		2,058
A. Other Program Growth in FY 1991	(2,058)	
1) SUBMARINE ASW TECHNICAL SUPPORT		
a) ADCAP - Increase of 15 Advanced Capability (ADCAP) simulated runs, and support for the introduction of new test equipment tools and procedures.	1,203	
b) BQQ-5 - 56 more Product Improvement actions will be taken.	832	
2) AVIATION ASW TECHNICAL SUPPORT		
a) CV Module - The Magnetic Media Tape Laboratory will start to develop a Qualified Products List (QPL) for rotary digital instrumentation tape.	23	
9. Program Decreases		-5,841
A. Other Program Decreases in FY 1991	(-5,841)	
1) CONTRACTOR SUPPORT CONVERSION - Decrease reflects the FY 1991 effect of the 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.	-600	
2) SUBMARINE ASW TECHNICAL SUPPORT		
a) SUBROC - Decrease reflects end of SUBROC Technical Support program because of SUBROC's retirement.	-289	

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

b) BQQ-5 - 5 fewer Sonar Certifications will be performed.	-842
c) MK 117 - 17 fewer Product Improvement actions and 42 fewer In-Service Engineering actions will be performed.	-1,239
d) ASW Test - 5 fewer Weapon System Accuracy Tests (WSATs) will be conducted. Decrease also reflects reduced support for Fleet Operational Readiness Accuracy Check Site (FORACS) Range maintenance and technical developments.	-1,655
3) SURFACE SHIP ASW TECHNICAL SUPPORT	
a) MK 46 - 529 fewer Performance Analysis actions will be performed.	-350
b) SQQ 89 - Decrease reflects reduction of engineering development and other efforts in support of the SQQ-89 Combat System.	-237
c) Engineering Change Accomplishment Proposal (ECAP) - 19 fewer ECAP's will be installed.	-487
d) Surface Ship Silencing - 3 fewer ships will receive assistance in correcting and defining acoustic deficiencies.	-30
e) Acoustic Trials - 2 fewer ships will receive an Acoustic Trial.	-112

10. FY 1991 President's Budget Request

\$ 74,165

7 0397

Activity Group: ASW Systems Support (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria.

1. ASW SUBMARINE TECHNICAL SUPPORT

This program provides the basic source of technical support for various complex sonar and ordnance systems on submarines. Principal types of effort included are: statistical analyses, investigations, testing, and engineering design of corrective fixes of items in the operational inventory for the purpose of extending the useful life within current performance levels; Installation and Checkout (I&C) support; Integrated Logistics Support (ILS) Management; Configuration; Training Certification Program (TCP); Follow on Test and Evaluation (FOT&E) programs for the Torpedo MK-48; operation of test sites, development of test procedures and performance of standard tests within the shipyard and at sea after major events such as overhauls and major modifications or prior to ship deployment. Systems supported in ASW submarine technical support include the MK 48/ADCAP (Advanced Capabilities). Units are the additional number of MK 48's and ADCAP's which have entered the fleet in each fiscal year since 1987. The Follow-on Test & Evaluation (FOT&E) program conducts runs which evaluate performance areas not fully tested during ADCAP Techeval. Also the FOT&E program uses runs to help evaluate performance deficiencies identified during OPEVAL. Thirdly, FOT&E supports development of torpedo software. Selected Weapons Tests (SWT) test the MK 48/ADCAP by firing a live warhead at a MK 28 target. The purpose of this test is to make sure that the weapon performs properly and to give ASW units an opportunity to use live torpedoes. ADCAP Hybrid Simulator runs support FOT&E and test and evaluation software block upgrades. These runs assess the ADCAP's performance in the environment against a changing threat. ADCAP Simulator Runs also resolve problems noted in TECH/OPEVAL to achieve optimum weapon performance.

The SUBROC is a missile system which has begun disposal of platforms and missile components in FY 1988 in preparation of its retirement. The AN/BSY-1 Combat System's units equate to the fleet population. The AN/BQQ-5 Sonar System's performance criteria has expanded to more accurately reflect the program. The first two performance criteria, Installation Support and Sonar Certification, both are driven by the overhaul schedule. Installation Support equates to the number of installations which receive technical support during Installation and checkout of upgraded equipment. Installation Support will point out any malfunctioning equipment. Sonar Certification fixes the malfunctions and also certifies the sonar system after an overhaul. Units are the number of fixes made. Product Improvement units equate to the number of 117/CCS MK 1 Fire Control has expanded performance criteria as well. Installation Support is Technical Support during and after overhauls to ensure that the Fire Control System functions properly. Product Improvement actions refer to development of ORDALTs in response to fleet complaints about chronic malfunctions. Tech Assists refer to Emergency Ship visits, minor repairs, or ORDALT installations. Logistics Management refers to the number of ships which have a full tracking system of the Fire Control equipment. Support for the ASW Test program is broken into several types of tests and this budget has been

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

expanded to show the funding of a Fleet Operational Readiness Accuracy Check Site (FORACS) range along with developmental costs. All other programs, not specifically labeled, are measured by the number of systems supported.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	41,859	27,661	43,140	41,934
	(15,547)	(11,263)	(15,389)	(16,353)
1. SUB TECH SUPPORT				
a. MK-48	+62	0	0	0
b. ADCAP	+18	0	+106	+319
FOT&E Runs	49	17	20	24
SWTS	6	6	6	6
ADCAP Hybrid Simulator Run	1,387	634	685	700
c. SUBROC*	313	300	291	281
d. BSY-1	4	8	16	19
Wide Aperture Array	1	1	1	1
2. AN/BQQ-5	(9,318)	(6,591)	(8,711)	(8,755)
a. Installation Support	3,168	8	3,129	8
b. Sonar Certifications	1,650	10	2,565	15
c. Product Improvements	330	23	440	30
d. Tech Assists	4,170	2,222	1,985	1,471
3. MK 117/CCS MK 1	(6,578)	(4,451)	(6,260)	(5,111)
a. Installation Support (ROH Installations)	4,027	8	0	0
1b Installation Support (DMP Installations)	0	568	6	5
b. Product Improvement	1,500	43	25	63
c. In-Serv Engineering	1,051	30	2	91
d. Logistics Management	0	0	0	56

7 0399

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
4. ASW Test	(10,416)	(5,356)	(12,780)	(11,715)
a. COT (# of tests)	9	4	8	8
b. WSAT (# of trials)	28	9	33	28
c. CART (# of tests)	48	10	40	40
d. STAG (# of tests)	54	10	45	45
e. FORACS (# of Tests)	51	0	68	68
f. FORACS (Development/ Range Maintenance)	1,946	1,530	2,657	2,297

COT - Consolidated Operability Test;
 WSAT - Weapon Systems Accuracy Trials;
 CART - Consolidated ASW Readiness Test;
 STAG - Sonar Test Assessment and Grooming;
 FORACS - Fleet Operational Readiness Accuracy Check Site.
 * The SUBROC line equates to the fleet population instead of the number of systems fully supported.

2. ASW SURFACE SHIP TECHNICAL SUPPORT

This program provides the basic source of technical support for various complex sonar and ordnance systems on surface ships. Principal types of effort included are: statistical analyses, investigations, testing, and engineering design of corrective fixes of items in the operational inventory for the purpose of extending their useful life within current performance levels; Installation and Checkout (I&C); Integrated Logistics Support (ILS) Management; Configuration Management (CM); and various other maintenance engineering tasks for operational fleet systems. Units are expressed in terms of Fleet population supported except for the Engineering Change Accomplishment Program (ECAP) which reflects the number of engineering changes installed, Switches and Transducers which reflects the number of components supported, the Surface Ship Silencing program which reflects the number of ships which will receive assistance in defining and correcting acoustic deficiencies, and Acoustic Trials which reflects the number of trials. The MK 46 Torpedo Program has been expanded to show the number of

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

Design Updates, the number of Performance Analysis actions taken, Quality Assurance actions which analyze maintenance to identify failure trends requiring modifications to the torpedo, and Integrated Logistics Support (ILS) which equates to technical assistance with equipment and Otto Safety Fuel work. The SQS-26/53A Sonar System also has expanded performance criteria which includes Installation Support Actions, Performance Analysis, Obsolete Fixtures, Maintenance Repair Cards (MRC), Interface Control Drawings (ICD), and Technical Manual (TM) updates and other. The SQS-89 Combat System has been expanded to show seven categories in addition to the fleet population. Category a. [Engineering Development Model (EDM)] gives the number of assists with technical problems. Category b. (Fleet Configuration Audits) gives the number of ship visits to evaluate fleet readiness and configuration. Category c. (Technical Documentation) tallies the number of technical documentation changes that are reviewed, printed and distributed. Category d. (Supply Support) reflects the development and reviews of supply support plans and lists. Category e. (Installation Engineering) reflects the developing, maintaining, and reviewing of installation documentation. Category f. (Configuration Management) reflects the number of reviews of system documentation changes. Category g. combines all other efforts and functions.

	FY 1988	FY 1989	FY 1990	FY 1991
	\$	\$	\$	\$
	UNITS	UNITS	UNITS	UNITS
Total Funding	28,266	27,633	28,585	28,297

1. MK46	(2,923)	(2,151)	(2,358)	(2,400)
a. Design Updates	298	15	15	18
b. Performance Analysis	1,274	857	1,536	1,726
c. Quality Assurance	725	438	109	125
d. ILS Support	626	55	50	45
2. AN/SQS-26/53A	(1,164)	(1,171)	(1,183)	(1,164)
a. Instal. Supt Actions	120	80	77	70
b. Maintenance Actions	311	58	296	296
c. Obsolete Fixes	103	20	120	23
d. MRC/ICD/TM/ILS	361	106	115	115
e. Other	269	266	266	266
3. SQQ-89	(5,953)	(8,508)	(8,895)	(9,050)

7 0401

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

		FY 1988	FY 1989	FY 1990	FY 1991
		\$	\$	\$	\$
		UNITS	UNITS	UNITS	UNITS
(Fleet Population)		10	20	38	48
a. Engineering Dvelopmnt		3	3	3	2
Model					
b. Fleet Config. Audit		0	262	5	5
c. Tech. Documentation		1,647	2,006	2,312	2,392
d. Supply Support		848	10	26	26
e. Installation Eng.		679	14	909	18
f. Configuration Mgt.		820	175	1,254	1,293
g. Other		1,466	2,357	2,357	2,452
4. OTHER SURFACE SPT		(16,072)	(13,435)	(14,184)	(13,752)
CAPTOR		69	0	0	0
AN/SQR-18A		35	35	0	0
Sur Ship Silence		90	88	85	82
SQR-17		150	150	150	150
SURF FCS		210	210	210	210
ECAP		97	233	229	210
Switches and		38,455	38,031	37,356	37,249
Transducers*					
MK 50					

5. ACOUSTIC TRIALS** (2,154) 72 (2,368) 75 (1,965) 65 (1,931) 63

* Switches and Transducers are counted by a new method leading to a lower number of components worked on each year.

** Acoustic Trials unit cost has been refigured and lowered since the Amended Congressional Budget because the new Range at St. Croix was found to have charged substantially less than other Ranges.

3. ASW AVIONICS TECHNICAL SUPPORT

Activity Group: ASW Systems Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria (continued).

This program provides for reliability improvement of the CV-ASW Modules and life-cycle engineering and logistic support for the Integrated Carrier Acoustic Processor System (ICAPS). Principal types of effort included are: developing system configuration drawings; identifying training requirements; initiating installation planning, integration and testing; safety assessments; developing engineering change orders; and developing documentation. Units equal the fleet population of systems supported.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	<u>\$</u>	<u>\$</u>	<u>\$</u>	<u>\$</u>
	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>	<u>UNITS</u>
Total Funding	2,403	3,236	3,790	3,934
CV-ASW Module	2,071	18	3,517	18
ICAPS	332	40	273	40

IV. Personnel Summary. N/A

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

Activity Group: Maintenance and Repair of Real Property
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

The Real Property Maintenance Activities Program supports repairs, maintenance and minor construction on NAVSEA military personnel support facilities at NAVSEA field activities. Funding in this activity group reflects Navy efforts to reduce the backlog of maintenance and repair at Naval facilities in accordance with Congressional direction to contain the backlog of repair projects by the end of FY 1988. The subactivity groups included under Real Property Maintenance are:

A. Maintenance of Real Property finances routinely scheduled maintenance, routine repairs, emergency repairs, and major repairs up to \$75 thousand at Naval Shipyards, Ordnance Stations, Inactive Ship Maintenance Facilities, Supervisors of Shipbuilding, and other NAVSEA field activities. Major Repair funding finances more substantial maintenance projects over \$75 thousand but less than \$200 thousand which are required to bring existing facilities into adequate condition to permit field activities to fulfill their assigned mission.

B. Minor Construction finances projects under \$25 thousand for alterations to military personnel support facilities as required; additions to facilities, re-arrangement of existing spaces to accommodate mission changes; and installation of material and equipment related to the facilities. Minor construction projects over \$25 thousand require specific approval by NAVSEA headquarters.

C. Maintenance of Real Property/Minor Construction/Physical Security supports physical security upgrades which is that part of security concerned with physical measures designed to safeguard personnel; to prevent unauthorized access to equipment installation, material, and documents; and to safeguard them against espionage, sabotage, damage, and theft.

Activity Group: Maintenance and Repair of Real Property (continued)
 Claimant: Naval Sea Systems Command

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. Budget	priation	Estimate	Request	Request
MAINT OF REAL PROPERTY	16,764	17,874	17,054	16,537	20,078	21,281
MINOR CONSTRUCTION	4,420	3,124	3,097	1,765	1,417	1,819
PHYSICAL SECURITY MNT	0	0	0	1,332	1,122	1,158
Total, MAINT OF REAL PROPERTY	21,184	20,998	20,151	19,634	22,617	24,258

7 0405

Activity Group: Maintenance of Real Property (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$ 19,634
2. Pricing Adjustments		1,196
A. Industrial Fund Rates	(1,074)	
B. Other Pricing Adjustments	(122)	
3. Functional Program Transfers		-152
A. Transfers Out	(-152)	
1) Intra-Appropriation	-104	
a) Transfer of MK-48 Advanced Capability function at the Naval Submarine Torpedo Facility in Charleston, S.C. to both the Commander in Chief of the Atlantic Fleet and the Commander, Submarine Fleet, U.S. Atlantic Fleet.		
2) Inter-Appropriation	-48	
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.		
4. Program Increases		3,737
A. Other Program Increases	(3,737)	
1) MAINTENANCE OF REAL PROPERTY - Increase reflects additional recurring maintenance in support of waterfront and other operational facilities, training, supply storage, medical, administrative and bachelor housing, and other estate and ground structures at the shipyards (603); additional non-recurring maintenance supporting administrative, troop housing, other personnel support and service, utilities, and real estate and ground structures at the shipyards and SUPSHIPS (594); and non-recurring ordnance station maintenance for waterfront, operational, RDT&E, ammo supply/storage, troop housing/messing,	3,547	

Activity Group: Maintenance of Real Property (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

personnel support and service, utilities, and real estate
 and ground structure facilities (2,350).
 2) MINOR CONSTRUCTION - Increase reflects additional
 non-capital projects at the ordnance stations (13);
 additional minor construction projects in support
 of unaccompanied personnel housing, environmental,
 energy, other capital and non-capital at the shipyards (177).
 190

5. Program Decreases

-1,798

A. Other Program Decreases

(-1,798)
 (-907)

1) MAINTENANCE OF REAL PROPERTY - Decrease reflects
 reduced recurring maintenance of utility, personnel, and
 real estate and ground structure facilities at the
 shipyards and SUPSHIPS (-138); and reduced ordnance station
 recurring maintenance for waterfront, other production,
 ROT&E, ammo supply, other supply, medical, administrative,
 troop housing, personnel support, utilities, and real
 estate and ground structure facilities (-769).

-618

2) MINOR CONSTRUCTION - Decrease reflects reduced
 unaccompanied personnel housing, health and safety, welfare
 and recreation, mission, and other capital projects
 at the ordnance stations (-411); and reduced
 minor construction in support of health/safety,
 welfare/recreation and mission projects for the
 shipyards (-207).

-273

3) MRP/MC/PHYSICAL SECURITY - Decrease reflects reduced
 support for Ammunition, Arms, and Explosives (AA&E) projects.

6. FY 1990 President's Budget Request

\$ 22,617

7. Pricing Adjustments

741

A. Industrial Fund Rates

(595)

B. Other Pricing Adjustments

(146)

7 0407

Activity Group: Maintenance of Real Property (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

8. Program Increases		1,482
A. Other Program Increases	(1,482)	
1) MAINTENANCE OF REAL PROPERTY - Increase reflects additional recurring maintenance in support of real estate and ground, shipyard maintenance/production, and other structures as well as increased emergency service work at the shipyards (243); increased ordnance station recurring maintenance for waterfront, other supply/storage, troop housing/messing, personnel support, and utilities, (121); additional support for shipyard non-recurring maintenance projects for administration, utilities, and bachelor housing (250); and additional ordnance station non-recurring maintenance for waterfront, operational, RDT&E, troop housing/messing, personnel support, and utilities facilities (360).	974	
2) MINOR CONSTRUCTION - Increase reflects additional minor construction for unaccompanied personnel housing, environmental, energy, health and safety, welfare and recreation, mission, capital, and non-capital projects at ordnance stations (310); and additional shipyard minor construction on mission, other capital, and non-capital projects (196).	506	
3) MRP/MC/PHYSICAL SECURITY	2	
9. Program Decreases		-582
A. Other Program Decreases	(-582)	
1) MAINTENANCE OF REAL PROPERTY - Decrease reflects reduced recurring maintenance for waterfront and aviation operational, training, other maintenance, RDT&E, troop housing, medical, administrative, utility and personnel support facilities at the shipyards (-199); reduced recurring maintenance on real estate and ground structures	-430	

Activity Group: Maintenance of Real Property (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

at the ordnance stations (-137); and reduced shipyard non-recurring maintenance on real estate and ground structures as well as reduced emergency services work (-94).
2) MINOR CONSTRUCTION - Decrease reflects reduced minor construction for unaccompanied personnel housing, energy, health and safety, and welfare and recreation projects at the shipyards and SUPSHIPS.

-152

10. FY 1991 President's Budget Request

\$ 24,258

Activity Group: Maintenance and Repair of Real Property (continued)
Claimant: Naval Sea Systems Command

III. Performance Criteria

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Backlog, Maintenance/Repair (\$000)	46,052	57,499	65,573	77,708
Total Buildings (KSF)	16,838	17,903	19,095	20,506

IV. Personnel Summary N/A

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

Activity Group: Base Operations
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Naval Sea Systems Command

I. Description of Operations Financed.

The Other Base Operations program provides support services and material support to the Naval Sea Systems Command (NAVSEASYS COM) field activities, enabling assigned forces and tenants to perform their mission. Funds are utilized for military and civilian support functions which are not directly related to the industrial effort. The subactivities included in Other Base Operations are:

A. Utility Operations - provides for purchased/generated electricity, gas, water, sewage, steam, hot water, and any other fuels to support military personnel support facilities. Utilities are provided within an overall energy conservation program directed by OPNAV.

B. Personnel Operations

1. Bachelor Housing - provides support for the operation of barracks, personnel housing, BQs, BEQs, as well as the purchase and maintenance of personnel support equipment related to the housing of personnel.

2. Other Personnel Support - provides for food service facilities, resale activities, laundry and dry cleaning, initial procurement, repair and replacement of furniture and furnishings, operation of chapels, and family service centers. Also provides funding for the Naval Regional Medical/Dental Clinics at Naval Weapons Support Center (NAWPNUSUPCEN), Crane, IN and Naval Ordnance Station (NOS), Louisville, KY, and support for Navy Drug and Alcohol programs where personnel with alcohol or substance abuse problems are identified and counseled. Funding is also provided for educational services for abuse prevention and operation of drug and alcohol rehabilitation facilities.

3. Morale, Welfare and Recreation - provides support for shore based recreational activities, special services, libraries, child care centers, clubs and messes, and military and civilian general recreation facilities.

C. Base Operations - Mission

1. Retail Supply Operations - provides support for service-wide supply involving the receipt,

Activity Group: Base Operations (continued)
Claimant: Naval Sea Systems Command

inspection and packing of inert Navy material, the provision of technical information services, the maintenance of stock records, processing various Naval and DOD requisitions from Inventory Control Points (ICPs) and transaction reports to ICPs. Funding is also provided to operate the Ordnance Alteration (ORDALT) repository (NAVPNSUPPCEN Crane) and the NAVORDSTA Indian Head detachment at Army Ammunition Plant (AAP) McAlester (Nuclear Publication and Parts).

2. Other Base Services - provides support for security and police protection, base transportation and associated vehicle operation and routine maintenance, disaster preparedness, port services, tool issues, and degaussing operations. This program also includes the Industrial Facility Mandated Program and Operating Support program, pursuant to a SECNAV initiative to remove non-shipwork and other industrial related costs from the naval shipyard and ordnance/weapon station stabilized manday rates, which provide direct funding to the shipyards and ord/wpn stations. The mandated program supports unique requirements, resulting from higher authority/regulatory direction, which are not incurred by private industry performing similar work. Some examples include the civilian employee assistance program, administration of OPM/Naval personnel regulations, Shore Required Operational Capabilities/Shore Requirements Standards and Manpower Planning System (SHOREOC/SHORESTAMPS), traumatic leave and commercial activities. This allows the shipyard to compete for work without being penalized by having to charge customers for efforts which bear no relation to the work the shipyard will perform for the customer.

D. Base Operations - Ownership

1. Administration - provides funding for off-station activities and on-base tenants (as common support service) for the following functions: command and administration, civilian and military personnel services, bachelor quarters administration, legal assistance, accounting/auditing services, mail, travel administration, and other related common administrative support services.
2. Automated Data Processing - provides services including operating and maintaining a payroll program, a personnel program and a supply program in support of tenants at Naval Ordnance Station, Indian Head, MD.
3. Hazardous Waste - provides funds for the operations necessary to handle, store, transport, treat, and dispose of hazardous waste material at NAVSEA facilities in accordance with applicable federal, state, and local laws. Funding supports development of waste management plans, operations, maintenance, and repair of storage facilities, and treatment and disposal of toxic substances.
4. Physical Security - provides support to upgrade physical security at various NAVSEA Field activities. This includes installation, operation and maintenance of physical security equipment, security

Activity Group: Base Operations (continued)
 Claimant: Naval Sea Systems Command

training, salaries, and rental of security vehicles. Also funds logistics support and in-service support of nuclear weapons security systems.

5. Engineering Support - provides support for public works departments, firefighting services, refuse collection and disposal, custodial services, entomological services, and exterior clean-up and related work not otherwise identified as supported by other real property/public works functions. Also funds planning, design and engineering support for facility projects.

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		
UTILITIES OPERATIONS	9,071	9,288	8,700	9,647	10,755	10,636
BASE COMMUNICATIONS	6,509	4,654	4,559	6,334	10,609	10,380
PERSONNEL OPERATIONS	10,813	8,920	8,422	9,225	11,385	11,827
BASE OPS MISSION	24,554	24,928	22,948	31,616	26,110	27,062
BASE OPS OWNERSHIP	23,625	20,927	19,701	21,001	20,228	17,170
Total, BASE OPERATIONS	74,572	68,717	64,330	77,823	79,087	77,075

7 0413

Activity Group: Base Operations Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate	\$ 77,823
2. Pricing Adjustments	4,940
A. Industrial Fund Rates	(4,646)
B. Other Pricing Adjustments	(294)
3. Functional Program Transfers	-1,240
A. Transfers-In	(4,300)
1) Intra-Appropriation	4,300
a) Transfer from the Navy Telecommunications Command of the Defense Data Network (DDN) Program is the result of the decision that DDN costs are to be recovered by billing subscribers based upon utilization of network resources.	
B. Transfers Out	(-5,540)
1) Intra-Appropriation	-205
a) Transfer of MK-48 Advanced Capacity function at the Naval Submarine Facility in Charleston, S.C. to both the Commander in Chief of the Atlantic Fleet and the Commander, Submarine Force, U.S. Atlantic Fleet.	
b) Transfer of the family housing management function from the Philadelphia Naval Shipyard to the Commander in Chief, U.S. Atlantic Fleet at the Philadelphia Naval Station.	-78
c) Transfer of Remote Sensors physical security functions to the Commander, Naval Security and Investigative Command (COMNAVSECINVCOM).	-5,193
2) Inter-Appropriation	-64
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.	

Activity Group: Base Operations Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

4. Program Increases		15,280
A. Other Program Growth in FY 1990		
1) UTILITIES OPERATIONS - Increase reflects procurement of additional electricity, fuel, steam, hot water, and potable water at the shipyards and SUPSHIPS (146) and additional utility costs for the 7 percent increase in square footage at the ordnance stations due to completion of major construction projects (361).	(15,280)	507
2) BASE COMMUNICATIONS - Increase reflects additional mainlines and instruments as well as average daily message traffic at the shipyards and SUPSHIPS.		20
3) PERSONNEL OPERATIONS - Increase reflects continued support for messing services since the mandated replacement of Marine Corps personnel with Navy personnel (1,485); expanded services at the family service centers and chapels to support the homeporting of the Ammunition, Oil and Explosive ships (AOE 3/4) at Naval Weapons Station Earle (152); the replacement of personnel support equipment (PSE) in bachelor housing at the ordnance stations (28) and shipyards (12); and additional equipment and services for military recreation services (32).		1,709
4) BASE OPERATIONS MISSION - Increase reflects additional transportation operations and maintenance, ship to shore, OSHA and laboratory services, police and fire protection, and tool support at 8 shipyards and 11 SUPSHIPS (1,052); increase for larger subsidy requirements for the mandated shipyard BOS and unique program costs (5,323); and increase in police and fire protection, tool issues, and laboratory services at the ordnance/weapons stations (1,227).		7,602
5) BASE OPERATIONS OWNERSHIP - Increase reflects		5,442

Activity Group: Base Operations Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

additional support for NWS Earle for homeporting of two A08-6 class vessels and support at NWS Concord for container operations and temporary leasing of trailers as classrooms (430); additional environmental studies related to homeporting of the A08-6s at Earle (13); additional common service support for civilian personnel at the ordnance stations (129); Increased Fleet and Integrated Logistics Support (ILS) for the MK4 Protected Voice Portable Communication System (PVPCS) and the MK1 Magazine Security System as well as additional civilian maintenance technical and security projects (3,896); and additional shipyard and SUPSHIP custodial services, refuse collection/disposal and pest control (947); and additional administrative support services for the Automated Access Control System (AACS) at the shipyards (27).

-17,716

5. Program Decreases

- A. Other Program Decreases in FY 1990 (-17,716)
- 1) BASE COMMUNICATIONS - Decrease reflects procurement/lease of fewer mainlines for the ordnance stations (-63); and headquarters personnel (-193). -256
 - 2) PERSONNEL OPERATIONS - Decrease reflects reduced galley services, replacement of various galley equipment such as ice makers, stoves, and refrigerators (these services are required for the crews of ships undergoing repairs at the shipyards) (-80); and decreased funding for physical fitness programs and equipment purchases at the shipyards and SUPSHIP Pascagoula (-57). -137
 - 3) BASE OPERATIONS MISSION - Decrease reflects a realignment of Industrial Preparedness type support cost to the Navy Industrial Fund (NIF) to charge customers for this effort (Ordnance/Weapons Station -5,510, Naval Shipyard -8,627). Also reflected is a decrease in supply service for material received from the Navy Spare Parts Control Center (SPCC) and issued to the fleet (-1,032). -15,169

7 0416

Activity Group: Base Operations Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

4) BASE OPERATIONS OWNERSHIP - Decrease reflects reduced administration/engineering of MRP projects at the naval shipyards and reduced lease costs at the SUPSHIPS (-449); reduced hazardous waste due to completion of Hunter's Point cleanup (-1,325); delays in physical security upgrades such as intrusion detection systems, vehicle barriers, and communications at the shipyards (-379); and reduced ADP support (-1).	-2,154	
6. FY 1990 President's Budget Request		\$ 79,087
7. Pricing Adjustments		2,633
A. Industrial Fund Rates	(2,243)	
B. Other Pricing Adjustments	(390)	
8. Program Increases		1,166
A. Other Program Growth in FY 1991	(1,166)	
1) UTILITIES OPERATIONS - Increase reflects recently increased square footage at the ordnance stations resulting in higher utility costs.	115	
2) BASE COMMUNICATIONS - Increase reflects procurement/lease of additional instruments and mainlines and increased daily message traffic at the shipyards and SUPSHIPS.	48	
3) PERSONNEL OPERATIONS - Increase reflects additional cost for personnel support equipment in bachelor housing at shipyards and ordnance stations (22); additional galley services supporting the crews of ships undergoing repairs at the shipyards (81); and increased physical fitness program efforts and equipment purchases for MWR at the shipyards and SUPSHIPS (63) and ordnance stations (416).	582	
4) BASE OPERATIONS MISSION - Increase reflects additional transportation operation and maintenance, ship to shore, OSHA and laboratory services, police and fire protection, tool	315	

Activity Group: Base Operations Support (continued)
 Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

issues, and specific training support at 8 naval shipyards and 13 SUPSHIPS. 106
 5) BASE OPERATIONS OWNERSHIP - Increase reflects additional administrative/engineering of MRP projects at the naval shipyards and additional lease funding at the SUPSHIPS (47); and additional administrative support services for industrial relations for tenants, civilian and military personnel management, accounting/auditing services, legal assistance, travel administration and the rebadging of tenants in support of the Automated Access Control System to meet Threat V requirements (59).

9. Program Decreases

-5,811

A. Other Program Decreases in FY 1991	(	-5,811)
1) UTILITIES OPERATIONS - Decrease reflects reduced procurement of electricity, fuel, steam, hot water and potable water at shipyards and SUPSHIPS.	-	597
2) BASE COMMUNICATIONS - Decrease reflects reduction in communications support for ordnance stations (-12) and headquarters personnel (-129); and reduced support for the Defense Data Network program (-456).	-	597
3) PERSONNEL OPERATIONS - Decrease reflects reduced mess services at ordnance stations (-8); and reduced club and mess operations at the ordnance stations (-501).	-	509
4) BASE OPERATIONS MISSION - Decrease reflects reduced supply service for material received from SPTC and issued to the fleet (-57); and reduced training and supplies for regional response forces at the ordnance stations (-218).	-	275
5) BASE OPERATIONS OWNERSHIP - Decrease reflects reduced custodial services, refuse collection/disposal and pest control at the shipyards (-37); reduced support for the hazardous waste program at ordnance stations including reduced support for environmental studies at Earle (-265) and the shipyards (-5); reduced accounting/auditing	-	3,833

Activity Group: Base Operations Support (continued)
Claimant: Naval Sea Systems Command

B. Reconciliation of Increases and Decreases (continued)

services, legal assistance, and travel administration at the ordnance stations (-47); decreased ADP support (-2); delays in shipyard physical security upgrades such as intrusion detection systems, vehicle barriers, and communications (-725); and reduced efforts in Shipboard Nuclear Weapons Security Systems, civilian maintenance technical projects, and security projects (-2,752).

10. FY 1991 President's Budget Request

\$ 77,075

Activity Group: Base Operations Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria

	FY 1988	FY 1989	FY 1990	FY 1991
<u>Operations of Utilities</u>				
Total Energy Consumed (MBTU's)	319,211	333,892	357,002	349,930
Total Non-Energy Consumed (000 Gal)	1,037,256	1,049,543	1,111,548	1,062,288
<u>Base Communications</u>				
Number of Instruments	19,368	19,379	19,466	19,840
Number of Mainlines	7,964	8,006	8,050	8,214
Daily Average Msg Traffic	34,884	35,499	35,837	37,917
<u>Personnel Operations</u>				
Bachelor Housing (\$000)	1,456	1,061	1,176	1,239
No. of Officer Quarters	231	231	276	276
No. of Enlisted Quarters	4,275	4,275	4,361	4,361
<u>Other Personnel Support (\$000)</u>				
Population Served, Total	4,787	4,137	5,951	6,212
(Military E/S)	160,331	162,369	163,369	163,369
(Civilian/Dep. E/S)	103,097	103,862	105,845	105,699
	57,236	58,507	57,524	57,670
<u>Morale, Welfare, and Recreation (\$000)</u>				
Population Served, Total	4,570	4,027	4,258	4,376
(Military E/S)	187,251	189,251	192,012	192,012
(Civilian/Dep. E/S)	89,161	90,701	92,140	91,935
	98,090	98,550	99,872	100,077
<u>Base Operations - Mission</u>				
Retail Supply Operations (\$000)	3,559	3,762	2,876	2,905
Line Items Carried	158	161	161	161
Receipts (000)	169	172	172	172
Issues (000)	166	169	169	169
<u>Other Base Services (\$000)</u>				
No. of Motor Vehicles, Total	20,995	27,854	23,234	24,157
	517	517	517	517

7 0420

Activity Group: Base Operations Support (continued)
 Claimant: Naval Sea Systems Command

III. Performance Criteria

	FY 1988	FY 1989	FY 1990	FY 1991
(Owned)	434	434	434	434
(Leased)	83	83	83	83
Ownership Operations				
Other Engineering Support (\$000)	15,092	11,958	12,337	12,491
Administration (\$000)	4,447	3,453	3,671	3,806
Number of Bases, Total	18	18	18	18
(CONUS)	17	17	17	17
(Overseas)	1	1	1	1

IV. Personnel Summary, (N/A)

7 0421

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

Activity Group: Supply Operations
Budget Activity: 7-Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

Supply Operations under the Naval Supply Systems Command provide: (1) effective response to requisitions for worldwide operations and maintenance requirements of Navy fleet and ashore units; (2) timely freight terminal services for the shipment and receipt of material carried by the stock point activities and for the transshipment of material designated for fleet units and other activities throughout the world; and (3) effective services to all Navy units other than the filling of requisitions for material or the processing of transshipments. This activity group finances the operations of ten stock point activities located in the United States, engaged in the receipt, storage and distribution of military supply items and the provision of other services such as fueling and procurement support. This activity group also centrally finances acquisition and development of automatic data processing systems which benefit Navy-wide stock point and supply operations. In addition, this activity group finances military support operations of the supply departments at three Naval Shipyards.

This submission incorporates the efficiencies gained as a result of the installation of productivity enhancing projects, Engineering the Workplace, Automated Materials Handling Systems such as Naval Integrated Storage Tracking and Retrieval Systems, and activity reorganizations. As allowed by Department of Defense policy, investment of these productivity savings has been incorporated at the activity level.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1989				FY 1990		FY 1991	
	FY 1988 Actuals	Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request	Budget Request	Budget Request	Budget Request
Supply Depots	268,432	278,914	266,136	280,967	313,335	292,167		
Supply Depots At NSys	8,005	5,907	5,607	9,548	6,322	6,955		
Total, Supply Operations	274,437	284,821	271,743	286,515	319,657	298,722		

7 0422

Activity Group: Supply Operations (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$286,515
2. Pricing Adjustments		8,925
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(3,462)	
2) Wage Board	1,231	
B. FY 1989 Direct Pay Raises	2,231	
1) Classified	(2,299)	
2) Wage Board	1,837	
C. Stock Fund	462	
1) Non-Fuel	(146)	
D. Industrial Fund Rates	146	
E. Other Pricing Adjustments	(687)	
	(2,331)	
3. Functional Program Transfers		5,756
A. Transfers in		
1) Intra-Appropriation	(6,117)	
a) Resources for the operation of the Naval Station Treasure Island Islemart transferred to Naval Supply Center, Oakland from CINCPACFLT. (152)	6,117	
b) Transfer of Supply Reimbursable Funding - This adjustment reflects the transfer of resources to correct improperly aligned reimbursable workload at the Naval Supply Centers. Efforts associated with this adjustment were being financed reimbursably. However, these efforts are within the mission responsibilities of the Naval Supply Centers. 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 in efforts from that performed in previous years. (5,965)		

Activity Group: Supply Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

B. Transfers out	(-361)	
1) Inter-appropriation	-361	
a) Transfer of funds to the Army's Operation and Maintenance appropriation in support of the Defense Systems Management College (DSMC) which will oversee the DoD education and training program for the acquisition work force. (-361)		
4. Program Increases		21,438
A. Annualization of FY 1989 Increases	(84)	
1) Stock Point ADP Replacement (SPAR) - Annualization of funding for civilian personnel required to implement the SPAR project at Naval Supply Centers.		
B. Other Program Growth in FY 1990	84	
1) Navy Integrated Storage Tracking and Retrieval System (NISTARS) - Resources are required to provide for implementation and maintenance costs for follow-on NISTARS sites. New maintenance effort will be required for operational sites at MSC's Pensacola, Puget Sound, and Pearl Harbor, and MCAS Cherry Point. Resources are also required to implement NISTARS sites at HSDs Subic Bay, Yokosuka, and Guam in FY 1990. Additional resources are required for the replacement of minor system equipment including printers, terminals and modems at MSCs Oakland, Norfolk, and San Diego.		1,130
2) Stock Point ADP Replacement (SPAR) - Increased funding is required to deploy the SPAR ADP system and local area network (LAN) to six additional sites and to upgrade the SPAR system at one site in preparation for the deployment of modernized UADPS-SP. Included in these implementations are costs for installation, training, technical support, software usage and maintenance. In addition, pre-implementation activities will begin for follow-on site implementations including site surveys, site preparation and conversion of site and local unique programs.		13,000

Activity Group: Supply Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

3) Plastics Removal from the Marine Environment (PRIME) - Resources are required for initiatives to substantially reduce the volume of plastics at sea. Public Law 100-220 requires that the Navy make every effort to eliminate the discharge of plastic waste from ships within five years. The resources requested will provide for the review of packing materials at the NSCs, removal of plastics, and the substitution of non-plastic materials.	750
4) Strategic Homeporting - The Secretary of the Navy's Strategic Homeporting Plan involves the re-homeporting of ships to new locations where the supply support infrastructure either does not exist or requires enhancement. Personnel resources are required to provide customer service, physical distribution (i.e., material/parts issues and receipts), and procurement support for greater customer demand resulting from the homeporting initiative. Resources are also required to provide for general operating costs, storage aids, and collateral equipment in support of this initiative.	6,474
5. Program Decreases	-2,077
A. Annualization of FY 1989 Decreases	
1) Efficiency Reviews - Annualization of personnel savings projected from scheduled Efficiency Reviews.	(-344)
B. Other Program Decreases in FY 1990	-344
1) Commercial Activities (CA) Program Savings - Savings associated with conversion to contractor performance or in-house efficiencies resulting from CA studies under OMB Circular A-76.	(-2,833)
2) Logistics Application of Automated Marking and Reading Symbols (LOGMARS) - Reduction in funding due to decreased equipment replacements in FY 1990 along with decreased requirements for maintenance and supplies as well as systems analysis and programming.	-559
3) Travel Savings From Video Teleconferencing - Reduction in funds required for travel due to the implementation of video teleconferencing at selected NAVSUP activities.	-324
	-147

Activity Group: Supply Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

4) Stock Point Logistics Integrated Communications Environment (SPLICE) - In FY 1989, SPLICE completes its basic program by installing the last of its 41 sites. FY 1990 funding reflects upgrades to previously installed sites.	-1,603	
6. FY 1990 President's Budget Request		\$319,657
7. Pricing Adjustments		8,516
A. Annualization of FY 1990 Direct Pay Raises		
1) Classified	(1,761)	
2) Wage Board	657	
B. FY 1991 Direct Pay Raises	1,104	
1) Classified	(3,078)	
2) Wage Board	2,958	
C. Stock Fund	720	
1) Non-Fuel	(-6)	
D. Industrial Fund Rates	-6	
E. Other Pricing Adjustments	(468)	
	(2,015)	
8. Functional Program Transfers		-
9. Program Increases		2,247
A. Annualization of FY 1990 Increases		
1) Strategic Homeporting - Annualization of funding for civilian personnel added in FY 1990 to support the Strategic Homeporting initiative.	(630)	
B. One-Time FY 1991 Costs	630	
1) Change in Number of Paid Days - Increase in funds required due to one more paid day for civilian personnel in FY 1991 than in FY 1990.	(757)	
C. Other Program Growth in FY 1991	757	
1) Plastic Removal in Marine Environment (PRIME) - The growth in the PRIME project reflects increased funding required for packing/packaging material reviews at the Naval Supply Centers.	(860)	

Activity Group: Supply Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Additional resources are required in order to comply with direction from Congress and ASN (S&L) to significantly reduce the amount of plastics aboard ships and to eliminate the discharge of plastics from ships within five years.	385
2) Strategic Homeporting Plan - Additional resources are required in FY 1991 in support of the Strategic Homeporting Plan to fund increased general operating and supply support expenses in order to respond to the greater customer demand as new bases are phased-in.	475
10. Program Decreases	-31,698
A. Other Program Decreases in FY 1991	(-31,698)
1) Navy Integrated Storage Tracking and Retrieval System (NISTARS) - Less funding is required for NISTARS due to two fewer implementations in FY 1991 than in FY 1990.	-1,595
2) Stock Point ADP Replacement - Modernized UADPS-SP will be prototyped in 1990. Decreases in FY 1991 funding for SPAR are due largely to the completion of systems development and training development for the modernized system. In addition, task orders for conversion of local unique programs for the larger SPAR sites will be initiated in FY 1989 and FY 1990. Requirements for conversion begin declining in FY 1991.	-22,588
3) Reduction to Logistics Support - Reduction in funding for fleet support at Naval Supply Centers due to decreased overall funding levels and savings from the implementation of ADP upgrades, automated materials handling systems, and organizational and workflow analyses.	-4,328
4) Logistics Application of Automated Marking and Reading Symbols (LOGMARS) - Further reduction in funding due to decreased equipment replacements in FY 1991 along with decreased requirements for maintenance and supplies as well as decreased systems analysis and programming.	-1,715

Activity Group: Supply Operations (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

- 5) Stock Point Logistics Integrated Communications Environment (SPLICE) - Reduction in funding due to decrease in upgrades to previously installed sites in FY 1991.

-1,472

11. FY 1991 President's Budget Request

\$288,722

Activity Group: Supply Operations (Continued)
 Claimant: Naval Supply Systems Command

III. Performance Criteria.	FY 1988	FY 1989	FY 1990	FY 1991
<u>Program Output</u>				
Physical Distribution				
Resourcing Units (000)	13,942	13,873	13,759	13,821
Warehouse Refusal Rate (%)	0.8	0.8	0.8	0.8
Purchase Actions (000)	376.2	388.1	391.1	392.1
Large Purchase (000)	20.7	20.7	21.7	22.2
Small Purchase (000)	355.5	367.4	369.4	369.9
Percent of Contract Dollars Awarded Competitively	92.7%	92.7%	92.7%	92.7%

IV. Personnel Summary.

	FY 1988	FY 1989	FY 1990	FY 1991
<u>End Strength (E/S)</u>				
A. <u>Military</u>	312	312	310	310
Officer	192	193	191	191
Enlisted	120	119	119	119
B. <u>Civilian</u>	7,294	7,372	7,529	7,557
USDE	7,294	7,372	7,529	7,557

Department of the Navy
Operation & Maintenance, Navy
Exhibit OP-03

Activity Group: Inventory Control Operations
Budget Activity: 7-Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

The mission of the Naval Supply Systems Command's Inventory Control Points is support of Navy and Marine Corps weapons systems, aircraft, and ship readiness by establishing and maintaining total secondary (repairable and consumable) item supply support necessary for their operation and maintenance, and providing supply support for certain items to other services.

This activity group finances the operation of inventory control point activities engaged in the management of secondary item supply support for operation and maintenance requirements of the fleet and shore establishment, and for the design, implementation, and maintenance of standardized logistics and related financial management systems. The objective of these systems is to improve fleet readiness, support weapons systems, and provide for economies in supply operations and inventory investment.

This submission incorporates the efficiencies gained as a result of the installation of productivity enhancing projects. As allowed by Department of Defense policy, reinvestment of these productivity savings has been incorporated at the activity level.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	Amended Pres. Budget	FY 1989		FY 1990 Budget Request	FY 1991 Budget Request
			Appro- priation	Current Estimate		
Inventory Control Operations	247,004	240,589	230,089	226,682	228,107	229,855
Total, Inventory Control Operations	247,004	240,589	230,089	226,682	228,107	229,855

7 0430

Activity Group: Inventory Control Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$226,682
2. Pricing Adjustments		6,178
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(1,827)	
2) Wage Board	1,784	
B. FY 1989 Direct Pay Raises	43	
1) Classified	(2,823)	
2) Wage Board	2,606	
C. Stock Fund	17	
1) Non-Fuel	(30)	
D. Industrial Fund Rates	30	
E. Other Pricing Adjustments	(89)	
	(1,009)	
3. Functional Program Transfers		17,316
A. Transfers in		
1) Intra-Appropriation	(17,612)	
a) Transfer of Supply Reimbursable Funding - This adjustment reflects the transfer of resources (432 workyears) to correct improperly aligned reimbursable workload at the Inventory Control Points. Efforts associated with this adjustment were being financed reimbursably. However, these efforts are within the mission responsibilities of the Inventory Control Points. 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 in efforts from that performed in previous years. (15,603)	17,612	

Activity Group: Inventory Control Operations (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

- b) Transfer of Integrated Logistics Support Technical Improvement Program (ILSTIP) Funding - ILSTIP funding in FY 1990 provides for the development and application of standard procedures and practices for improving Integrated Logistics Support. The funding will enable NAVSUP to standardize requirements determination, program planning and control, budgeting and funding, as well as operations and support cost analysis for individual programs. The establishment of this program in the NAVSUP budget reflects a transfer of responsibility from NAVSEA to NAVSUP. (1,500)
 - c) Transfer of MK-50 Torpedo Support Funding - Resources to perform inventory management and logistic support for the MK-50 torpedo transferred from NAVSEA to NAVSUP (Ships Parts Control Center). (500)
- B. Transfers out
- 1) Inter-appropriation
 - a) Transfer of funds to the Army's Operation and Maintenance appropriation in support of the Defense Systems Management College (DSMC) which will oversee the DoD education and training program for the acquisition work force. (-296)

(-296)
-296

4. Program Increases

- A. Other Program Growth in FY 1990
 - 1) Conventional Ammunition Integrated Management System (CAIMS) - Additional resources are required to support increases in the cost of the CAIMS secure telecommunications network (SECRET) circuits. This worldwide SECRET provides CNO, Fleet Commanders, Systems

(328)

328

7 0432

Activity Group: Inventory Control Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Commanders, and Type Commanders as well as other users on-line conventional ammunition readiness postures and provides ammunition managers the means to improve the procurement, renovation, and distribution of ammunition assets.	328	
 5. Program Decreases		
A. Annualization of FY 1989 Decreases		-22,397
1) Efficiency Reviews - Annualization of personnel savings projected from scheduled Efficiency Reviews.	(-870)	
2) President's Private Sector Survey on Cost Control (PPSSCC) - Annualization of savings from the phased implementation of PPSSCC recommendations.	-415	
B. Other Program Decreases in FY 1990	-255	
1) ICP Data Base Accuracy - Completion of the effort to detect and eliminate data base errors as the transition of the ICP data base to the new hardware and software environment under UICP Resolicitation continues.	(-21,727)	
2) UICP Resolicitation - The modernization of computer systems at the Inventory Control Points continues with the redesign of applications software. While overall hardware requirements continue to grow to accommodate the new software applications, O&M,N funding decreases in FY 1990 reflecting a change in hardware acquisition strategy. Projections by the leading industry analyst indicate that IBM mainframe technology will not change until at least 1991, a delay of two years. Because of this delay, economic analyses justified buying out installed equipment to yield the least overall cost to the government. This buyout strategy was accommodated through the use of the OSD ADPE Management Fund. The decrease in overall O&M,N requirements reflects the reduction in funding supporting equipment leases. This decrease is partially offset by increased requirements for maintenance associated with the growing base of owned/installed equipment.	-1,127	
3) Project BOSS (Buy Our Spares Smart) - Reduction in funding for Project BOSS and support contracts at the Inventory Control Points.	-14,532	
		-5,110

Activity Group: Inventory Control Operations (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

4) Uninterruptible Power System (UPS) - Decrease in funding due to the accommodation of all UPS requirements in FY 1989.	-750	
5) Travel Savings From Video Teleconferencing - Further reduction in funds required for travel due to the implementation of video teleconferencing at selected MAVSUP activities.	-208	
		\$228,107
6. FY 1980 President's Budget Request		6,309
7. Pricing Adjustments		(972)
A. Annualization of FY 1990 Direct Pay Raises		952
1) Classified		20
2) Wage Board		(4,313)
B. FY 1991 Direct Pay Raises		4,289
1) Classified		24
2) Wage Board		(2)
C. Stock Fund		2
1) Non-Fuel		(115)
D. Industrial Fund Rates		(907)
E. Other Pricing Adjustments		
8. Functional Program Transfers		1,215
9. Program Increases		(644)
A. One-Time FY 1991 Costs		
1) Change in Number of Paid Days - Increase in funds required due to one more paid day for civilian personnel in FY 1991 than in FY 1990.		644
B. Other Program Growth in FY 1991		(571)
1) Engineering Data Management Information and Control System (EDMICS) - Increased resources are required to continue development of applications software to improve system capabilities for researching and retrieving engineering drawings and repository information.		571

Activity Group: Inventory Control Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

10. Program Decreases		
A. Other Program Decreases in FY 1991		
1) Computer Upgrades - This reduction reflects completion of the computer upgrade program at the ICPs recommended by the President's Private Sector Survey on Cost Control (PPSSCC).	(-5,776)	-5,776
2) Reduction to Logistics Support - Reduction to personnel providing fleet support at Inventory Control Points due to decreased overall funding levels and savings from implementation of ADP upgrades and workflow and organizational changes.	-610	
3) Military Standard Contract Administration Procedures (MILSCAP) - This reduction reflects completion of follow-on implementation of MILSCAP standardization procedures.	-2,486	
4) Defense Data Network (DDN) - Decrease in resources available for maintenance of installed DDN sites.	-941	
5) Conventional Ammunition Integrated Management System (CAIMS) - Decreased resources available for the implementation of the redesigned CAIMS.	-390	
6) UICP Resolicitation - Decreased funding required for contractor assistance for resystemization of ICP applications software.	-200	
7) Inventory Accuracy Afloat - Reduced shore support for inventory accuracy training and reconciliation teams.	-865	
	-284	
11. FY 1991 President's Budget Request		\$229,855

Activity Group: Inventory Control Operations (Continued)
Claimant: Naval Supply Systems Command

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
III. <u>Performance Criteria.</u>				
<u>Program Output (000)</u>				
Line Items Managed	655	660	660	660
Weighted Line Items Managed	1,280	1,295	1,295	1,295
Line Item Requisitions (000)	2,149	2,149	2,149	2,149
Provisioning Line Item Reviews (000)	1,102	1,063	1,063	1,063
Planned Program Requirements Generated (000)	611	558	558	558
Allowance Documents Prepared (000)	175	175	175	175
Purchase Actions (000)	114	111	111	111
Large Purchases (000)	61	56	56	56
Small Purchases (000)	53	55	55	55
Percent of Contract Dollars Awarded Competitively	26.8%	26.8%	26.8%	26.8%

Activity Group: Inventory Control Operations (Continued)
 Claimant: Naval Supply Systems Command

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>				
Officer	239	249	255	255
Enlisted	167	165	171	171
	72	84	84	84
B. <u>Civilian</u>				
	5,701	5,529	5,905	5,905
USDR	5,701	5,529	5,905	5,905

7 0437

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

Activity Group: Procurement Operations
Budget Activity: 7-Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

The purpose of Procurement Operations is to provide effective procurement services, centralized administration of specialized supply programs such as Automation of Procurement and Accounting Data Entry (APADE) and ADP security, and project management support of programs such as Project BOSS (Buy Our Spares Smart) and various automated management systems.

Funding under this activity group also finances the four Regional Contracting Centers (NRCCs) and the NAVSUP Project Management Offices.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988 Actuals	FY 1989				FY 1990 Budget Request	FY 1991 Budget Request
		Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request		
Supply System Services	25,932	27,619	23,980	24,585	31,064	24,692	
NRCCs/Other Activities	22,246	18,154	18,065	20,760	21,402	22,347	
Project Management Offices	8,936	14,145	14,145	7,746	6,191	6,540	
Total, Procurement Operations	57,114	59,914	56,190	53,091	59,557	53,579	

Activity Group: Procurement Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$53,091
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(270)	
2) Foreign National Direct Hires	249	
B. FY 1989 Direct Pay Raises	21	
1) Classified	(437)	
2) Foreign National Direct Hires	364	
C. Stock Fund	73	
1) Non-Fuel	(1)	
D. Industrial Fund Rates	1	
E. Foreign Currency Adjustments	(322)	
F. Other Pricing Adjustments	(321)	
	(594)	
3. Functional Program Transfers		-230
A. Transfers out		
1) Inter-appropriation	(-230)	
a) Transfer of funds to the Army's Operation and Maintenance appropriation in support of the Defense Systems Management College (DSMC) which will oversee the DoD education and training program for the acquisition work force. (-230)	-230	
4. Program Increases		
A. Other Program Growth in FY 1990		
1) Plastics Removal from the Marine Environment (PRIME) - Resources are required for initiatives to substantially reduce the volume of plastics at sea. Public Law 100-220 requires that the Navy make every effort to eliminate the discharge of plastic waste from ships within five years. The resources requested will fund the Plastics Program Manager Office to coordinate with the military services and General Services	(6,605)	6,605

Activity Group: Procurement Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued)

Administration for the development of non-plastic packaging of supplies and provisions for the Navy in order to reduce the amount of plastics required to be carried aboard ships.

345

2) Automation of Procurement and Accounting Data Entry (APADE) -

Resources are required to provide for the additional costs of hardware maintenance as activities are provided with the APADE system. Installed equipment increases by 39 percent to 2,500 terminals in FY 1990. The existing hardware must be maintained to ensure that APADE continues to provide the Navy Field Contracting System with the tools required to maintain competition and improve productivity in Navy contracting.

3,839

3) Integrated Information Systems - Increased funding is required to provide for maintenance and operating costs for the integrated systems installed in FY 1988 and FY 1989. Additional resources are required for training and establishment of information centers at field sites in order to provide the necessary technical expertise and improved systems maintenance. Effective maintenance and operation of these integrated systems is absolutely vital to sustaining mission effectiveness in the face of severely reduced personnel levels.

2,210

4) Transportation Management/OTEMPO System (TMOS) - Increased resources are required to continue development of TMOS to better monitor and forecast transportation requirements and costs.

211

5. Program Decreases

A. Annualization of FY 1989 Decreases

- 1) Efficiency Reviews - Annualization of personnel savings projected from Efficiency Reviews.

-1,854

B. Other Program Decreases in FY 1990

- 1) Project BOSS (Buy Our Spares Smart) - Reduction of funding for Project BOSS contractor support for the Project Management Office.

(-142)

-142

(-1,712)

-1,551

7 0440

Activity Group: Procurement Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

2) Travel Savings From Video Teleconferencing - Reduction in funds required for travel due to the implementation of video teleconferencing at selected NAVSUP activities.	-161	
6. FY 1990 President's Budget Request		\$50,557
7. Pricing Adjustments		1,799
A. Annualization of FY 1990 Direct Pay Raises		
1) Classified	(153)	
2) Foreign National Direct Hires	123	
B. FY 1991 Direct Pay Raises	30	
1) Classified	(646)	
2) Foreign National Direct Hires	553	
C. Industrial Fund Rates	93	
D. Other Pricing Adjustments	(322)	
8. Functional Program Transfers	(676)	
9. Program Increases		125
A. Annualization of FY 1990 Increases		
1) Plastics Removal from the Marine Environment (PRIME) - Annualization of funding for Personnel added in FY 1990 to manage the PRIME project.	(44)	
B. One-Time FY 1991 Costs		
1) Change in Number of Paid Days - Increase in funds required due to one more paid day for civilian personnel in FY 1991 than in FY 1990.	44	
	(61)	
	81	
10. Program Decreases		-7,902
A. Other Program Decreases in FY 1991		
1) ADP Security - Decreases in funding programmed for contingency plans testing, ADP security training, purchase of security equipment and software packages, and security assist visits.	(-7,902)	
		-82

Activity Group: Procurement Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

2) Automation of Procurement and Accounting Data Entry (APADE) - Decreased funding is required due to completing full installation of the base of 2,900 APADE terminals.	-3,322
3) Integrated Information Systems - Decreased resources available for upgrades of existing information systems capabilities during FY 1991.	-1,798
4) Transportation ADP Systems Support - Decrease in funding for the integration of transportation ADP systems development projects.	-114
5) Transportation Management/OTEMPO System (TMOS) - Decreased resources available for TMOS development in FY 1991.	-512
6) ADP Systems Operations and Maintenance - Decrease in funding available to operate and maintain automated information systems, data communication lines, and the Standard Accounting and Reporting System (STARS).	-2,074

11. FY 1991 President's Budget Request

\$53,579

Activity Group: Procurement Operations (Continued)
 Claimant: Naval Supply Systems Command

<u>III. Performance Criteria.</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Program Output</u>				
Purchase Actions (000)	69.0	70.5	71.5	71.5
Large Purchases (000)	39.8	40.2	40.7	40.7
Small Purchases (000)	29.2	30.3	30.8	30.8
Procurement Offices Provided				
Technical Direction	963	963	963	963
Percent of Contract Dollars				
Awarded Competitively	85.5%	85.5%	85.5%	85.5%

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>
<u>A. Military</u>	<u>128</u>	<u>145</u>	<u>152</u>	<u>153</u>
Officer	83	106	106	107
Enlisted	45	39	46	46
<u>B. Civilian</u>	<u>739</u>	<u>749</u>	<u>759</u>	<u>759</u>
USDH	696	706	716	716
FMDH	43	43	43	43

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

Activity Group: Command and Administration
Budget Activity: 7 - Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

The mission of the Naval Supply Systems Command Headquarters is to manage and provide technical direction to major logistics subsystems which directly support ships, aircraft, weapon systems, and personnel of the operating forces ashore and afloat. Funds under the Command and Administration activity group finance the operation of the Naval Supply Systems Command Headquarters which manages and provides technical direction to the following logistics subsystems:

- An integrated Navy supply system responsible for providing secondary item support Navy-wide to fleet units and shore installations
- A purchasing system which provides Navy-wide support in procuring products and services from commercial suppliers
- A transportation system responsible for Navy-wide first and second destination movement of material
- A financial system with Navy-wide responsibility for payroll; operating expense, inventory, and plant property accounting; and disbursing
- A resale system involving the management of the Navy's Commissary and Exchange systems, including the operation of ships' stores, barber shops, laundry facilities afloat, and retail clothing stores
- A publication and printing service which has Navy-wide responsibility for printing requirements
- A food service system with technical responsibility for the food service operations of the Navy
- A Special Support Operations project.

Activity Group: Command and Administration (Continued)
 Claimant: Naval Supply Systems Command

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		
Command and Administration	16,846	14,431	14,431	14,510	14,848	15,303
Special Support Operations*	28,006	31,178	30,929	30,929	52,919	63,707
Total, Command and Administration	44,852	45,609	45,360	45,439	67,767	79,010

* - This is a new sub-activity group. These amounts were previously included in sub-activity group Command and Administration.

Activity Group: Command and Administration (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$45,439
2. Pricing Adjustments		1,428
A. Annualization of FY 1989 Direct Pay Raises	(133)	
1) Classified	133	
B. FY 1990 Direct Pay Raises	(194)	
1) Classified	194	
C. Industrial Fund Rates	(21)	
D. Other Pricing Adjustments	(1,080)	
3. Functional Program Transfers	-	
4. Program Increases		20,938
A. Other Program Growth in FY 1990	(20,938)	
1) Funding for a special support project.	20,938	
5. Program Decreases		-38
A. Other Program Decreases in FY 1990	(-38)	
1) Reduction in miscellaneous support services.	-38	
6. FY 1990 President's Budget Request		\$67,767
7. Pricing Adjustments		2,000
A. Annualization of FY 1990 Direct Pay Raises	(65)	
1) Classified	65	
B. FY 1991 Direct Pay Raises	(295)	
1) Classified	295	
C. Industrial Fund Rates	(27)	
D. Other Pricing Adjustments	(1,613)	
8. Functional Program Transfers		

Activity Group: Command and Administration (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

9. Program Increases		
A. One-time FY 1991 Costs		
1) Change in Number of Paid Days -		
Increase in funds required due to one		
more paid day for civilian personnel		
in FY 1991 than in FY 1990.		
B. Other Program Growth in FY 1991		
1) Funding for a special support		
project.		
10. Program Decreases		
A. Other Program Decreases in FY 1991		
1) Further reduction in miscellaneous		
support services.		
11. FY 1991 President's Budget Request		

(53)	9,253
53	
(9,200)	
9,200	
(-10)	-10
-10	
	\$79,010

Activity Group: Command and Administration (Continued)
 Claimant: Naval Supply Systems Command

III. Performance Criteria. FY 1988 FY 1989 FY 1990 FY 1991

Program Output

Number of Field Activities Managed	172	172	172	173

- Growth in FY 1991 is due to the establishment of a new commissary store at Staten Island, NY.

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>	67	69	69	69
Officer	59	60	60	60
Enlisted	8	9	9	9
B. <u>Civilian</u>	301	301	301	301
USDH	301	301	301	301

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

Activity Group: Field Operations
Budget Activity: 7 - Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

Field Operations under the Naval Supply Systems Command provide for the management of Navy material transportation, for the centralized management of the Navy's food service program, and for the overall management of Navy fuel operations worldwide.

Funds under this activity group finance the operation (i.e., salaries and office support) of the following activities: the Naval Material Transportation Office, the Navy Food Service Systems Office, the Navy Petroleum Office, and Operational Support-Field.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	<u>FY 1989</u>			<u>FY 1990</u>		<u>FY 1991</u>	
	<u>FY 1988</u>	<u>Amended</u>	<u>Appro-</u>	<u>Current</u>	<u>Budget</u>	<u>Budget</u>	<u>Request</u>
	<u>Actual</u>	<u>Budget</u>	<u>priation</u>	<u>Estimate</u>	<u>Request</u>	<u>Request</u>	<u>Request</u>
Miscellaneous Field Operations	10,544	7,628	7,499	9,784	12,499	12,842	
Operational Support-Field	2,012	1,856	1,856	2,232	2,282	2,353	
Total, Field Operations	12,556	9,484	9,355	12,016	14,781	15,195	

7 0449

Activity Group: Field Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$12,016
2. Pricing Adjustments		307
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(116)	
B. FY 1990 Direct Pay Raises	116	
1) Classified	(167)	
C. Other Pricing Adjustments	167	
	(24)	
3. Functional Program Transfers		-
4. Program Increases		2,458
A. Annualization of FY 1989 Increases		
1) Transportation Support - Annualization of funding and end strength provided in FY 1989 to expand and improve transportation management programs.	(33)	
B. Other Program Growth in FY 1990		
1) Transportation Operational Personal Property Standard System (TOPS) - The Assistant Secretary of Defense directed the development of TOPS in order to standardize the services' household goods shipping offices. Funding will provide hardware maintenance, software maintenance and modification, civilian personnel management, and the Navy's portion of the DoD TOPS Project Management Office funding and communications costs.	33	
	(2,425)	
2) Pre-Payment Audit of Transportation Bills - An increase in funding for enhanced contractor effort for providing services at the Navy Material Transportation Office supporting auditing of transportation bills prior to payment.	2,389	
5. Program Decreases		-
6. FY 1990 President's Budget Request		\$14,781

Activity Group: Field Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

7. Pricing Adjustments		414
A. Annualization of FY 1990 Direct Pay Raises		
1) Classified	(58)	
B. FY 1991 Direct Pay Raises	58	
1) Classified	(262)	
C. Other Pricing Adjustments	262	
	(94)	
8. Functional Program Transfers		-
9. Program Increases		92
A. Annualization of FY 1990 Increases	(47)	
1) Annualization of end strength added in FY 1990 in support of the TOPS program.	47	
B. One-Time FY 1991 Costs	(45)	
1) Increase in funds required due to one more paid day for civilian personnel in FY 1991 than in FY 1990.	45	
10. Program Decreases		-92
A. Other Program Decreases in FY 1991	(-92)	
1) Reduction in contractor services for TOPS reflects the required level of effort for the phase of development following on-line implementation.	-92	
11. FY 1991 President's Budget Request		\$15,195

Activity Group: Field Operations (Continued)
Claimant: Naval Supply Systems Command

III. Performance Criteria. FY 1988 FY 1989 FY 1990 FY 1991

Program Output

Number of Food Service Locations Managed	684	684	684	684
Number of Fuel Facilities Provided Technical Guidance	115	115	115	115
Oversight of:				
Short Tons of Material Moved (000)	1,071	990	971	964
Measurement Tons of Material Moved (000)	2,011	1,991	1,976	1,976

IV. Personnel Summary.

FY 1988 FY 1989 FY 1990 FY 1991

End Strength (E/S)

A. <u>Military</u>	17	21	21	21
Officer	14	16	16	16
Enlisted	3	5	5	5
B. <u>Civilian</u>	357	357	361	361
USDH	357	357	361	361

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

Activity Group: Servicewide Transportation (SWT)
Budget Activity: 7 - Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

The Servicewide Transportation (SWT) program provides funding for the majority of the Navy's worldwide cargo movements. This includes first destination transportation (FDT), second destination transportation (SDT), and continental United States terminal services in conjunction with first and second destination transportation. First destination transportation costs are associated with the movement of material, after purchase by procurement and other appropriations on a Free-On-Board origin basis, from the contractors' facilities to the first point of use or storage. The program also provides financing for the worldwide second destination movement of regular and emergency readiness material including ammunition, chemicals, medicine, subsistence, mail, repair parts, and high value repairable items.

The SWT program finances the purchase of transportation services predominantly from DOD industrially-funded transportation activities: the Military Airlift Command (MAC), the Military Sealift Command (MSC), and the Military Traffic Management Command (MTMC). In addition, SWT purchases transportation services from private sector firms. These include aircraft, truck, rail, bus, barge and freight forwarding services.

This is a Navy-wide program. The program's volume is driven by a variety of factors, but the most significant are the operating tempo and readiness requirements of the fleet, and the level of deliverables from programmed procurements.

This submission incorporates the savings identified in the Naval Audit Service Report 143-S-88: "Internal Controls, Procurement of Transportation Services, and Financial Management at the Navy Material Transportation Office, Norfolk, Virginia (143-S-88)". These savings are incorporated in the budget estimates beginning in FY 1988 through the outyears.

Activity Group: Servicewide Transportation (Continued)
 Claimant: Naval Supply Systems Command

II. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout

	<u>FY 1989</u>			<u>FY 1990</u>	<u>FY 1991</u>
	<u>FY 1988</u>	<u>Amended</u>	<u>Appro-</u>	<u>Budget</u>	<u>Budget</u>
	<u>Actual</u>	<u>Presidents</u>	<u>priation</u>	<u>Request</u>	<u>Request</u>
		<u>Budget</u>			
Servicewide					
Transportation	374,371	322,466	318,032	390,369	406,123
(SWT)					
Total					
Servicewide					
Transportation	374,371	322,466	318,032	390,369	406,123

Activity Group: Servicewide Transportation (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$375,120
2. Pricing Adjustments		
A. Industrial Fund rates	(8,101)	13,789
B. Other Pricing Adjustments	(5,688)	
3. Functional Program Transfers		
A. Transfers out		
1) Inter-Appropriation		
a) Defense Courier Service (DCS). Transfer of budget requirements and funding of DCS to the Air Force. Modal Distribution:		
Inland -25,583 Short Tons. (-3,000)	(-3,000)	-3,000
4. Program Increases		
A. One-Time FY 1990 Costs	(600)	4,460
1) Prepositioning munitions in support of a special strategic project. Modal distribution:		
Inland 5,117 Short Tons.	600	
B. Other Program Growth in FY 1990	(3,860)	
1) High Priority Airlift - Partial restoration of this service from FY 1989 levels which is required to meet critical fleet logistics requirements. FY 1989 funding constraints forced this material to move via surface. Logistics material is transported by surface or airlift (TP-1 or TP-2) depending on the urgency of need, current mission, assignment, location, and deployment of a unit or activity; the international threat assessment; and related criteria. All active Navy items, e.g., repair parts, missiles, ammunition, aircraft engines, subsistence, and medicine, will be transported by surface or air in accordance with these standards. Modal Distribution: MAC 2,270 Short Tons, MSC -7,765 Measurement Tons, MTMC -7,765 Measurement Tons.		3,535

Activity Group: Servicewide Transportation (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

2) Naval Ordnance Transportation Tracking System - Partial restoration of Ammo Security which was reduced in prior year due to funding constraints. This increase will help reduce the threat of terrorist activity to Naval ordnance in-transit. No Modal Change.	325	
5. Program Decreases		
6. FY 1990 President's Budget Request		\$390,369
7. Pricing Adjustments		17,242
A. Industrial Fund rates	(12,114)	
B. Other Pricing Adjustments	(5,128)	
8. Functional Program Transfers		
9. Program Increases		1,890
A. Other Program Growth in FY 1991	(1,890)	
1) Increased movement of Prepositioned War Reserve Material managed by the Naval Facilities Engineering Command (NAVFAC). Modal Distribution: Inland 15,581 Short Tons.	1,890	
10. Program Decreases		-3,378
A. One-Time FY 1990 Costs	(-618)	
1) Completion of one-time effort of prepositioning munitions in support of a special strategic project. Modal Distribution: Inland -5,117 Short Tons.	-618	
B. Other Program Decreases in FY 1991	(-2,760)	
1) Decreased movement of Acoustic Range Materials. Modal Distribution: Inland -3,785 Short Tons.	-961	
2) Decreased Movement of Collateral Equipment. Modal Distribution: Inland -10,098 Short Tons.	-1,207	
3) Movement of Seasheds - Currently changing from FOB Origin shipments to FOB Destination Shipments with transportation costs to be included in the purchase price of the items and not in SWT. Modal Distribution: Inland -4,285 Short Tons.	-512	

7 0456

Activity Group: Servicewide Transportation (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

- 4) Reduced Movement of Harpoon Missiles. Modal
Distribution: Inland -211 Short Tons.
- 11. FY 1991 President's Budget Request

-80

\$406,123

7 0457

Activity Group: Servicewide Transportation (Continued)
Claimant: Naval Supply Systems Command

III. Performance Criteria

See Attachment A.

IV. Personnel Summary

There are no military or civilian personnel associated with this activity group.

PROGRAM DATA	FY 1988	FY 1989	FY 1990	FY 1991
	Units	Units (\$000)	Units (\$000)	Units (\$000)
First Destination Transportation by Mode of Shipment:				
Military Airlift Command				
Regular Channel (ST)	4,896	9,742	9,673	10,119
SPRM (MSN)	15	0	0	0
Military Sealift Command				
Regular Routes (MT)	101,028	101,028	101,028	101,028
Per Diem (SD)	0	0	0	0
Military Traffic Management Command				
Port Handling (MT)	121,289	121,289	121,289	121,289
Commercial				
Air (ST)	12,278	4,971	5,140	5,294
Surface (ST)	227,166	227,166	227,166	222,670
TOTAL	57,903	62,689	64,740	66,464

ATTACHMENT A
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7 0459

PROGRAM DATA	FY 1988 Units (\$000)	FY 1989 Units (\$000)	FY 1990 Units (\$000)	FY 1991 Units (\$000)
Second Destination Transportation by Mode of Shipment:				
Military Airlift Command				
Regular Channel (ST)	61,364	104,862	47,623	91,980
SPAH (NSN)	163	11,555	0	0
Military Sealift Command				
Regular Routes (MT)	895,046	47,744	880,830	880,830
Per Diem (SD)	665	5,686	665	6,203
Military Traffic Management Command				
Port Handling (MT)	893,799	13,974	880,135	14,885
Commercial				
Air (ST)	34,516	50,185	34,516	51,646
Surface (ST)	730,651	82,462	665,447	75,467
TOTAL	316,468	312,431	325,629	339,659
TOTAL FIRST AND SECOND DESTINATION TRANSPORTATION	374,371	375,120	390,369	406,123

ATTACHMENT A
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7 0460

PROGRAM DATA	FY 1988		FY 1989		FY 1990		FY 1991	
	Units	(\$000)	Units	(\$000)	Units	(\$000)	Units	(\$000)
Second Destination Transportation by Selected Commodity:								
Cargo (ST)	819,974	191,477	739,024	165,812	720,788	170,577	717,369	176,082
(MT)	1,041,810	32,465	1,023,438	44,069	1,009,653	46,034	1,009,653	48,284
(SD)	665	5,686	665	5,824	665	6,023	665	6,203
(MSN)	163	11,555	0	0	0	0	0	0
Commissaries (MT)	360,817	10,960	360,817	18,269	360,817	20,405	360,817	22,124
Base Exchanges (MT)	257,941	12,670	257,941	22,240	257,941	24,842	257,941	27,053
Subsistence (ST)	920	1,577	655	1,282	693	1,346	693	1,408
(MT)	109,702	5,115	107,960	7,582	106,216	7,818	106,216	8,245
Overseas Mail:								
Surface (MT)	18,575	488	18,575	845	18,575	924	18,575	1,004
Air (ST)	5,636	44,455	5,636	46,508	5,636	47,660	5,636	49,256
Total		316,468		312,431		325,629		339,659

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7 0461

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

Activity Group: Retail Sales Operations
Budget Activity: 7 - Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

The Retail Sales Operations Activity Group provides funding for the operation of commissary stores worldwide, regional distribution centers, and management organization. The activity group contains two subactivity groups - Commissary Operations and Retail Clothing Stores/Ships' Stores Afloat.

The mission of the Navy's Commissary Operations is to provide items for sale to authorized commissary store patrons at the lowest practicable price in a facility designed and operated similar to the standards used in commercial food stores. Savings realized by member families purchasing goods from commissaries are a vital incentive for the retention of service members and could even be considered part of the enlistment contract. The commissary privilege is very important to enlisted personnel, especially in the E-4 through E-6 ranks, and junior officers.

Retail Clothing Stores provide a convenient and reliable source from which authorized personnel may obtain government-procured articles of uniform clothing and related items. Ships' Stores Afloat provide a convenient and reliable source from which personnel aboard ships may obtain articles and services for their health and comfort. This sub-activity group provides for reimbursement to Navy Exchanges and the Navy Resale and Services Support Office (NAVRESSO) for staff services expended in support of government-procured articles of uniforms at Navy Exchanges.

Activity Group: Retail Sales Operations (Continued)
 Claimant: Naval Supply Systems Command

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	<u>FY 1989</u>			<u>FY 1990</u>	<u>FY 1991</u>
	<u>Amended</u>	<u>Appro-</u>	<u>Current</u>	<u>Budget</u>	<u>Budget</u>
	<u>FY 1988</u>	<u>pration</u>	<u>Estimate</u>	<u>Request</u>	<u>Request</u>
	<u>Actual</u>	<u>Budget</u>			
Commissary					
Operations	86,322	92,869	91,512	96,342	99,842
Retail Clothing					
Stores/ Ships,					
Stores Afloat	<u>6,088</u>	<u>7,289</u>	<u>6,383</u>	<u>6,568</u>	<u>6,771</u>
Total, Retail	92,410	100,158	97,895	102,910	106,413
Sales					

Activity Group: Retail Sales Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.		
1. FY 1989 Current Estimate		\$97,895
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(1,169)	
2) Wage Board	257	
3) Foreign National Direct Hires	868	
B. FY 1990 Direct Pay Raises	44	
1) Classified	(819)	
2) Wage Board	372	
3) Foreign National Direct Hires	294	
C. Stock Fund	153	
1) Non-Fuel	(3)	
D. FM Indirect Hires Pay Raise	3	
E. Foreign Currency Adjustments	(228)	
F. Other Pricing Adjustments	(810)	
	(1,108)	
3. Functional Program Transfers		
4. Program Increases		
A. Annualization of FY 1989 Increases		
1) Civilian Substitution of Enlisted		
Billets - Annualization of funding for end		
strength added in FY 1989 to offset the loss		
of enlisted personnel in the commissary		
system.		
	(3,079)	
		3,881
		3,079

Activity Group: Retail Sales Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

B. Other Program Growth in FY 1990	(802)	
1) Strategic Homeporting - The Navy's Strategic Homeporting Plan increases the number of ships where there are currently no commissary facilities, or facilities are inadequate to meet the requirements of an increased Fleet concentration. Civilian personnel and funding are required to ensure that military members and their families are provided with an adequate level of service. The FY 1990 increase will enhance the present level of service in the Corpus Christi, TX area.	802	-3,003
5. Program Decreases		
A. Annualization of FY 1989 Decreases		
1) Efficiency Review - Annualization of savings projected from efficiency reviews.	(-226)	
2) Japanese Defense Contribution - Annualization of projected increase, from 50% to 75% of allowances effective 1 April 1989, and further increase, from 75% to 100% effective 1 April 1990, in the Japanese government's cost sharing of Navy's indirect hire Japanese employees.	-103	
B. Other Program Decreases in FY 1990		
1) Commissary Store Operating Hours - Decrease in operating hours at selected CONUS commissary stores due to funding availability.	-123 (-2,777)	
6. FY 1990 President's Budget Request	-2,777	\$102,910

Activity Group: Retail Sales Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

7. Pricing Adjustments		3,255
A. Annualization of FY 1990 Direct Pay Raises	(650)	
1) Classified	131	
2) Wage Board	471	
3) Foreign National Direct Hires	48	
B. FY 1991 Direct Pay Raises	(1,265)	
1) Classified	591	
2) Wage Board	489	
3) Foreign National Direct Hires	185	
C. Stock Fund	(-2)	
1) Non-Fuel	(403)	
D. FM Indirect Hires Pay Raise	(939)	
E. Other Pricing Adjustments		
8. Functional Program Transfers		-
9. Program Increases		1,611
A. Annualization of FY 1990 Increases	(70)	
1) Strategic Homeporting - Annualization of resources added in FY 1990 in support of commissary operations in the Corpus Christi, TX area.	70	
B. One-Time FY 1991 Costs	(267)	
1) Change in the number of paid days - Increase in funding due to one additional paid day for civilian personnel in FY 1991 than in FY 1990.	267	
C. Other Program Growth in FY 1991	(1,274)	
1) Strategic Homeporting - Civilian personnel and funding to enhance the level of commissary services to meet the requirements of an increased fleet concentration at Naval activities in Staten Island, NY, Gulfport, MS and Pensacola, FL.	1,274	

Activity Group: Retail Sales Operations (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

10. Program Decreases

- A. Annualization of FY 1990 Decreases
 1) Japanese Defense Contribution - Annualization of projected increase, from 75% to 100% of allowances effective 1 April 1990, in the Japanese government's cost sharing of the Navy's indirect hire Japanese employees.
- B. Other Program Decreases in FY 1991
 1) Commissary Store Operating Hours - Decrease in operating hours at selected CONUS commissary stores due to funding availability.

-1,363

(-245)

-245

(-1,118)

-1,118

11. FY 1991 President's Budget Request

\$106,413

Activity Group: Retail Sales Operations (Continued)
Claimant: Naval Supply Systems Command

III. Performance Criteria. FY 1988 FY 1989 FY 1990 FY 1991

Program Output

Average System-wide
 Commissary Operating Hours 43.5 43.4 42.2 42.0

See Attachment A for additional performance criteria.

IV. Personnel Summary

FY 1988 FY 1989 FY 1990 FY 1991

End Strength (E/S)

A. <u>Military</u>	<u>1,276</u>	<u>1,042</u>	<u>1,040</u>	<u>1,044</u>
Officer	100	103	102	102
Enlisted	1,176	939	938	942
B. <u>Civilian</u>	<u>3,026</u>	<u>3,084</u>	<u>3,100</u>	<u>3,184</u>
USDH	2,729	2,732	2,748	2,812
FMDH	209	237	237	237
FMH	88	115	115	115

FY 1990/1991 PRESIDENT'S BUDGET
COMMISSARY OPERATIONS (RETAIL)
DOLLARS IN THOUSANDS

	FY 1989			FY 1990			FY 1991		
	COMUS	OVER-SEAS	TOTAL	COMUS	OVER-SEAS	TOTAL	COMUS	OVER-SEAS	TOTAL
Number of Stores									
Domestic Stores	60	3	63	60	3	63	61	3	64
Foreign Stores	0	19	19	0	19	19	0	19	19
Total	60	22	82	60	22	82	61	22	83
Gross Yearly Sales (000's)									
Domestic Stores	701,569	63,948	765,517	734,741	66,972	801,713	770,693	70,249	840,942
Foreign Stores	0	104,125	104,125	0	109,048	109,048	0	114,384	114,384
Total	701,569	168,073	869,642	734,741	176,020	910,761	770,693	184,633	955,326
Appropriated Fund Support									
DMH,N (000's)									
Civilian Pay - USDM	52,634	6,814	59,508	53,510	6,919	60,429	58,037	7,505	65,542
Civilian Pay - FNMH	0	2,322	2,322	0	2,520	2,520	0	2,968	2,968
Civilian Pay - FNMH	0	1,851	1,851	0	2,119	2,119	0	2,892	2,892
Non-Personnel Costs (Excl. cost of trans. to O/S stores)	137	50	187	140	52	192	174	23	197
Travel	244	32	276	252	33	285	259	34	293
Other Purchased Services	19,639	2,539	22,178	22,994	2,973	25,967	21,650	2,800	24,450
TOTAL COMMISSARY OPS.	72,714	13,608	86,322	76,896	14,616	91,512	80,120	16,222	96,342
Military Personnel	33,047	4,273	37,320	29,851	3,860	33,711	27,362	3,538	30,900
Subtotal Operating Costs (Excluding O/S Transp. Costs)	105,761	17,881	123,642	106,747	18,476	125,223	107,482	19,760	127,242
Costs of Transp. to O/S Stores	0	10,960	10,960	0	18,269	18,269	0	20,405	20,405
Total Appropriated Fund Support	105,761	28,841	134,602	106,747	36,745	143,492	107,482	40,165	147,647

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7 0469

END STRENGTH	FY 1988		FY 1989		FY 1990		FY 1991	
	MIL	CIV	MIL	CIV	MIL	CIV	MIL	CIV
Military	1,242		1,008		1,000		1,000	
Civilian								
USOH		2,729		2,732		2,748		2,812
FNOM		209		237		237		237
FNTH		88		115		115		115
TOTAL E/S	1,242	3,026	1,008	3,084	1,000	3,100	1,000	3,164
WORK YEARS								
MIL								
CIV								
Military	1,311.5		1,125		1,004		1,000	
Civilian								
USOH		2,626		2,645		2,770		2,810
FNOM		201		210		210		210
FNTH		89		89		89		89
TOTAL WYS	1,311.5	2,916	1,125	2,944	1,004	3,069	1,000	3,109

Attachment A
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7 0470

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

Activity Group: Maintenance of Real Property
Budget Activity: 7 - Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

This program provides for the maintenance, repair, and minor construction of all public works, buildings, structures, grounds, and utility systems required at the Naval Supply Systems Command's field activities. The three major programs are:

- * Maintenance and Repair of Real Property - Finances scheduled, day-to-day recurring maintenance, emergency service work and specific maintenance projects needed to preserve facilities.
- * 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 is made part of a facility.
- * Physical Security - Finances security upgrades of real property facilities throughout the Naval Supply Systems Command's field activities.

7 04/1

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Naval Supply Systems Command

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
		Budget				
Maint & Repair						
of Real Prop	25,443	21,711	21,711	20,662	27,598	26,135
Minor						
Construction	2,901	1,282	1,282	1,985	2,613	2,425
Physical						
Security		171	171	171	359	37
Total, Maintenance						
of Real						
Property	28,344	23,164	23,164	22,618	30,570	28,597

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.		
1. FY 1989 Current Estimate		\$22,818
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(137)	
2) Wage Board	20	
B. FY 1990 Direct Pay Raises	117	
1) Classified	(60)	
2) Wage Board	29	
C. Stock Fund	31	
1) Non-Fuel	(50)	
D. Industrial Fund Rates	50	
E. Other Pricing Adjustments	(137)	
	(381)	
3. Functional Program Transfers		
4. Program Increases		
A. Other Program Growth in FY 1990		6,987
1) Physical Security - Funding to provide increased physical security measures, such as installing new or replacing antiquated security systems throughout the Naval Supply Systems Command's field activities.	(6,987)	
2) Facilities Enhancements/Quality of Worklife - NAVSUP manages the majority of Navy supply shore operations and administrative facilities. Many of the warehouses, cold storage facilities, fueling facilities, supply piers, and data processing centers are housed in deteriorating World War II vintage warehouses causing unsafe, noisy and inefficient work environments. This funding will allow for	182	

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

a more aggressive repair, rehabilitation, and house and office excellence and improvement plan to upgrade lighting, flooring and general facility habitability. 6,240

3) Minor Construction - Additional minor construction projects at NAVSUP activities: (1) an extension of a loading dock, (2) installation of fire alarm and sprinkler systems, and (3) the construction of a storage shed which will improve the safety and efficiency of warehouse operations. 565

5. Program Decreases

6. FY 1990 President's Budget Request \$30,570

7. Pricing Adjustments 831

A. Annualization of FY 1990 Direct Pay Raises

1) Classified (70)
 2) Wage Board 12

B. FY 1991 Direct Pay Raises

1) Classified (100)
 2) Wage Board 55

2) Wage Board 45

C. Stock Fund (4)

1) Non-Fuel 4

D. Industrial Fund Rates (128)

E. Other Pricing Adjustments (529)

8. Functional Program Transfers

9. Program Increases

A. One-Time FY 1991 Costs

1) Increase in funds required due to one more paid day for civilian personnel in FY 1991 than in FY 1990. 21

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

10. Program Decreases

- A. Other Program Decreases in FY 1991
- 1) Physical Security - Substantial completion of physical security improvement measures at Naval Supply Systems Command activities.
 - 2) Warehouse Enhancements/Quality of Life - Reduction in available funding for facilities improvement projects.
 - 3) Minor Construction - Reduction in available funding for minor construction projects.

-2,825
 (-2,825)
 -333
 -2,230
 -262

11. FY 1991 President's Budget Request

\$28,597

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Naval Supply Systems Command

III. Performance Criteria.

<u>Maintenance of Real Property</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Backlog, Maint/Repair (\$000)	108,364	135,312	154,298	182,853
Total Buildings (KSF)	43,355	43,355	43,355	43,355

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. Military: There are no military personnel associated with this activity group.

B. <u>Civilian</u>	<u>211</u>	<u>237</u>	<u>237</u>	<u>237</u>
USDH	211	237	237	237

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

Activity Group: Base Operating Support
Budget Activity: 7-Central Supply & Maintenance
Claimant: Naval Supply Systems Command

I. Description of Operations Financed.

This program provides the base support services and material required at field activities under the command of the Naval Supply Systems Command to allow assigned forces and tenants to perform their mission.

The major elements of this program are:

Base Communications - provides for administrative telephones, telecommunications centers, industrial security networks, and paging networks.

Payments to GSA - includes costs to reimburse General Services Administration in accordance with Public Buildings Amendment Act of 1972 (P.L. 92-313) which requires a users service charge payment to GSA for occupied space. Includes costs and administrative expenses.

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.

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

-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.

Base Operations - Mission - Support for those Base Operations functions which are required in direct support of the mission of the base. Expenses are included for the following functions:

-Retail Supply Operations funds the management associated with the movement of personal property and assistance rendered to service members in their permanent change of station moves.

-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.

Activity Group: Base Operating Support (Continued)
Claimant: Naval Supply Systems Command

I. Description of Operations Financed (Continued).

-Other Base Services includes expenses for miscellaneous base support functions (other than Public Works functions) not otherwise included in other functional categories. Typical of such expenses are those incurred by the administrative transportation activities (including motorpools) and security.

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 provides for 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 Supply Systems Command activities and their tenants. This sub-activity group also provides for 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.

-Physical Security provides for security items, e.g., weapons, radios, etc., over and above routine services funded in Other Engineering Support.

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

-Audiovisual provides supplies and services required for audiovisual support.

Activity Group: Base Operating Support (Continued)
 Claimant: Naval Supply Systems Command

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1989				FY 1990	FY 1991
	FY 1988	Amended	Appro-	Current	Budget	Budget
	Actuals	Budget	priation	Estimate	Request	Request
Base Communications	11,728	11,778	11,778	11,593	14,448	14,586
Payments to GSA	1,670	2,613	2,613	2,493	1,870	1,950
Utility Operations	19,615	20,497	20,497	20,632	21,586	22,235
Personnel Operations	419	433	433	429	429	438
Base Ops - Mission	22,442	23,230	22,818	23,480	24,298	25,027
Base Ops - Ownership	86,445	97,386	96,720	96,529	96,738	99,653
Total, Base Ops	142,319	155,937	154,859	155,156	159,369	163,869

7 0479

Activity Group: Base Operating Support (Continued)
 Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$155,156
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(861)	
2) Wage Board	509	
B. FY 1990 Direct Pay Raises	352	
1) Classified	(892)	
2) Wage Board	786	
C. Stock Fund	106	
1) Fuel	(-66)	
2) Non-Fuel	-91	
D. Industrial Fund Rates	25	
E. Other Pricing Adjustments	(1,800)	
	(1,558)	
3. Functional Program Transfers		-32
A. Transfers in		
1) Intra-Appropriation		
a) Transfer of funding from the Navy Facilities Engineering Command to accommodate the handling of hazardous waste at NAVSUP activities. (426)	(3,175)	
b) Civilian payroll function transferred from CINPAFLT (NAS Alameda) to NSC Oakland. (264)	3,175	
c) Transfer of funds from the Navy Telecommunications Command for the Defense Data Network (DDN). (2,483)		
B. Transfers out		
1) Intra-Appropriation		
a) Resource Management System (RMS) accounting functions transferring from Navy Regional Finance Center (NRFC) Washington to the Naval Recruiting Command. (-26)	(-3,207)	
b) RMS accounting functions transferring from NSC Oakland to OPNAV (Navy Regional Finance Center (NRFC) Great Lakes). (-38)	-3,207	
c) RMS accounting functions transferring from NSC Charleston to OPNAV (Navy Regional Finance Center (NRFC) Great Lakes). (-59)		
d) RMS accounting and civilian payroll functions transferring from NSC Charleston to CINCLANTFLT (Regional Accounting and Disbursing Center (RAADC) Jacksonville). (-94)		

Activity Group: Base Operating Support (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

- e) RMS accounting functions transferring from NSC Norfolk to CINCLANTFLT (FAADCLANT, Norfolk). (-73)
- f) Bill paying and disbursing functions transferring from NSC Norfolk to CINCLANTFLT (FAADCLANT, Norfolk). (-23)
- g) RMS accounting functions transferring from NSCs Oakland, Puget and San Diego to CINCPACFLT (FAADCPAC). (-872)
- h) RMS accounting functions transferring from NSC Pearl to CINCPACFLT (FAADCPAC). (-1,321)
- i) SLUC funds to rent commercially leased space realigned to Budget Activity 9, Base Operations Support, for direct payment to General Services Administration Federal Building Fund. (-701)

4. Program Increases

146

- A. Annualization of FY 1989 Increases
 - 1) Accounting and Bill Paying - Annualization of civilian personnel increases in FY 1989 and full-year costs of related expenses. (100)
- B. Other Program Growth in FY 1990
 - 1) Navy Integrated Storage and Retrieval System (NISTARS) Support - Requirement for increased utilities at NSCs Pensacola, Puget Sound and Pearl Harbor as NISTARS becomes fully operational. (46)

5. Program Decreases

-946

- A. Annualization of FY 1989 Decreases
 - 1) Efficiency Review Savings - Annualization of manpower reductions taken in FY 1989. (-251)
- B. Other Program Decreases in FY 1990
 - 1) Commercial Activities - New savings realized from contracting out under the A-76 program. (-695)
 - 2) Audiovisual Support - Decrease in required funding as activities rely more on in-house capabilities and less on commercial sources. -527
 - 3) Energy Conservation - Reduction in funding required for utilities operations due to increased energy conservation. -102

-66

6. FY 1990 President's Budget Request

\$159,369

7 0481

Activity Group: Base Operating Support (Continued)
Claimant: Naval Supply Systems Command

B. Reconciliation of Increases and Decreases (Continued).

7. Pricing Adjustments		4,621
A. Annualization of FY 1990 Direct Pay Raises		
1) Classified	(454)	
2) Wage Board	262	
B. FY 1991 Direct Pay Raises	192	
1) Classified	(1,291)	
2) Wage Board	1,180	
C. Stock Fund	111	
1) Fuel	(35)	
2) Non-Fuel	34	
D. Industrial Fund Rates	1	
E. Other Pricing Adjustments	(1,400)	
	(1,441)	
8. Functional Program Transfers		-
9. Program Increases		442
A. Annualization of FY 1990 Increases	(158)	
1) Navy Integrated Storage and Retrieval System (NISTARS) Support - Requirement for full year of maintenance and utilities at MSCs Pearl, Puget, and Pensacola.	158	
B. One-Time FY 1991 Costs	(252)	
1) Paid Day Change - Increase in funds required due to one more paid day for civilian personnel in FY 1991 than in FY 1990.	252	
C. Other Program Growth in FY 1991	(32)	
1) Physical Security - Resources provide for security items such as small arms, radios, etc. in support of base security.	32	
10. Program Decreases		-563
A. Other Program Decreases in FY 1991	(-563)	
1) Communications - Decrease in required funding due to efforts to reduce telephone usage.	-318	
2) Energy Conservation - Reduction in funding required for utilities operations due to increased energy conservation.	-245	
11. FY 1991 President's Budget Request		\$163,869

Activity Group: Base Operating Support (Continued)
Claimant: Naval Supply Systems Command

III. Performance Criteria.

<u>Program Output</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Operation of Utilities (\$000)</u>	19,615	20,632	21,586	22,235
<u>Total Energy Consumed (MBTU)</u>	564,448	564,448	564,448	564,448
<u>Total Non-Energy Consumed (K Gals)</u>	736,466	736,466	736,466	736,466
<u>Base Communications (\$000)</u>				
Number of Instruments	11,728	11,593	14,448	14,566
Number of Mainlines	21,288	21,288	21,288	21,288
Daily Average Message Traffic	14,453	14,453	14,453	14,453
	6,857	6,857	6,857	6,857
<u>Personnel Operations (\$000)</u>				
Other Personnel Support	419	429	429	438
Population Served, Total	231	234	231	237
(Military, E/S)	3,800	3,800	3,800	3,800
(Civilian, E/S)	1,400	1,400	1,400	1,400
Morale, Welfare, & Recreation	2,400	2,400	2,400	2,400
	188	195	198	201
<u>Base Operations-Mission (\$000)</u>				
Retail Supply Operations (\$000)	22,442	23,480	24,298	25,027
Line Items Carried	6,966	7,195	7,355	7,573
Receipts	2,020	2,020	2,020	2,020
Issues	4,925	4,925	4,925	4,925
Maintenance of Instal Equip (\$000)	6,700	6,700	6,700	6,700
Other Base Services (\$000)	1,206	2,725	2,811	2,899
No. of Motor Vehicles, Total	14,270	13,600	14,132	14,555
(Owned)	1,378	1,378	1,378	1,378
(Leased)	1,068	1,068	1,068	1,068
	310	310	310	310
<u>Payments to GSA (\$000)</u>				
	1,670	2,493	1,870	1,950
<u>Ownership Operations (\$000)</u>				
Other Engineering Support (\$000)	86,445	96,529	96,738	99,653
Administration (\$000)	16,503	17,900	18,279	18,797
ADP (\$000)	68,346	76,992	76,877	79,104
Audiovisual (\$000)	669	677	694	714
Number of Bases, Total	927	960	888	916
(CONUS)	61	61	61	61
(O/S)	59	59	59	59
	2	2	2	2

7 0483

Activity Group: Base Operating Support (Continued)
 Claimant: Naval Supply Systems Command

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>	3	5	5	5
<u>Officer</u>	3	5	5	5
<u>Enlisted</u>	-	-	-	-
B. <u>Civilian</u>	2,670	2,767	2,726	2,726
<u>USDH</u>	2,670	2,767	2,726	2,726

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

Activity Group: Command and Administration
Budget Activity: 7-Central Supply and Maintenance
Claimant: Naval Facilities Engineering Command

I. Description of Operations Financed.

These funds provide for salaries and related support cost of the engineers, technicians and administrative personnel in the Headquarters of the Naval Facilities Engineering Command (except for the execution of Military Construction), whose mission includes facilities and base planning; administration of Navy real estate; engineering and management support for acquisition of facilities, utilities systems, and civil engineering support equipment; management of Navy family housing; administration of the Navy Environmental Protection Program; support of ocean engineering; technical support of the Naval Construction Force and other fleet units; public works support for major naval complexes executed by the Public Works Centers; and research and development related to all of the above. The personnel provide for the command and control of the field activities of the Command, as well as the programming, budgeting and financial management support for those appropriations for which the Command is responsible.

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 Estimate		
Command and Administration	18,903	16,544	16,517	17,458	17,710
Total					

Activity Group: Command & Administration (Continued)
 Claimant: Naval Facilities Engineering Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate	16,797	
2. Pricing Adjustments	397	
A. Annualization of FY 1989 Direct Pay Raises		(140)
1) Classified		140
B. FY 1990 Direct Pay Raises		(197)
1) Classified		197
C. Other Pricing Adjustments		(60)
3. Functional Program Transfers		
A. Transfers Out		
1) Inter-Appropriation		(-40)
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.		-40
4. Program Increases.		
A. Other Program Increases.		304
1) Realignment		(304)
a) Realignment of resources from MCON to O&M,N, based on an internal management decision, reflecting actual resource use. Specifically, realigning resources to ensure that personnel were paid from the appropriate fund source.		304
5. FY 1990 President's Budget Request	17,458	

Activity Group: Command & Administration (Continued)
 Claimant: Naval Facilities Engineering Command

B. Reconciliation of Increases and Decreases Continued.		
6. Pricing Adjustments		464
A. Annualization of FY 1990 Direct Pay Raises	(85)	
1) Classified	85	
B. FY 1991 Direct Pay Raises	(322)	
1) Classified	322	
C. Other Pricing Adjustments	(57)	
7. Program Decreases		-212
A. Other Program Decreases in FY 1991	(-212)	
1) Reduction in personnel support costs due to economy and efficiency initiatives. Specifically, savings associated with anticipated attrition and the filling of vacant positions at lower grade levels.	-212	
8. FY 1991 President's Budget Request		17,710

Activity Group: Command & Administration (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Number of Field Activities provided management services	21	21	21	21
Total Civilians Supported	22,798	22,097	21,967	21,799
Total Military Supported	1,148	1,136	1,147	1,157
Total funds (from all sources) \$ (billions)	6.3	6.1	6.0	5.9

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. Military	40	43	42	42
Officer	37	39	38	38
Enlisted	3	4	4	4
B. Civilian	303	306	306	306
USDH	303	306	306	306

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

Activity Group: Field Operations
Budget Activity: 7-Central Supply and Maintenance
Claimant: Naval Facilities Engineering Command

I. Description of Operations Financed.

Field Operations include the personnel and related support costs for the Engineering Field Divisions, (except for the execution of Military Construction) the Naval Energy and Environmental Support Activity and the Environmental Restoration Programs. The Engineering Field Divisions are responsible for providing support to the operating forces of the Navy, the Marine Corps, and other naval commands in regard to shore facilities and related material and equipment, including the planning, design and construction of public works, public utilities, and special facilities for the Navy (e.g., communications facilities, runways, piers, hospitals, personnel support facilities); acquiring and disposing of Navy real estate; providing technical advice and assistance on the maintenance of facilities and operations of utilities; directing and administering family housing at assigned field installations and providing technical and engineering advice and assistance; administering the assignment, replacement, maintenance and disposal of transportation equipment (passenger vehicles, trucks, trailers, construction, firefighting and weight handling equipment); assisting and advising activities in the application of the technical programs assigned to the Naval Facilities Engineering Command; and providing facilities engineering assistance to those naval commands for which Engineering Field Divisions have been designated the principal staff advisor.

The Naval Energy and Environmental Support Activity is responsible for providing environmental protection and energy conservation support to naval commands. Its mission is to support: (1) the Naval Environmental Protection Support Service (NEPSS), which provides: Navy-wide environmental data management with an ADP capability, specialized air emission test teams, wastewater and potable water experts, a hazardous material/waste management and investigation team; and ship sewage and oily waste disposal experts; (2) energy conservation management; Energy training; and (3) technical assistance and engineering management of procurement, overhaul and utilization of Mobile Utility Support Equipment (MUSE).

The Environmental Restoration Program represents an ongoing but newly reorganized environmental rehabilitation effort designed to enhance the priority status and visibility of the program. FY1989 - 1991 work includes hazardous waste site clean-up; other non-disposal hazardous waste operations; and unsightly building demolition.

Beginning in FY 1986 this work is financed with transfers from Environmental Restoration, Defense, (ER.D) appropriation during the execution year. The Navy's Environmental Restoration requirements are budgeted and requested in the ER.D appropriation with the rest of the Department's requirements. A detailed description of the FY 1988 - 1991 program follows:

7 0489

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

I. Description of Operations Financed (Continued)

1. Installation Restoration Program. This is a comprehensive, multi-phase program to identify, investigate, confirm, and clean up contamination from hazardous substances and wastes on active installations. Specific projects include Initial Assessment Studies (IAS), Confirmation Studies (CS), groundwater monitoring projects and remedial measures.
2. Building Demolition and Debris Removal Program. Plan and executes a comprehensive program to demolish and remove unsafe, unsightly, and hazardous buildings and structures on active Navy and Marine Corps installations.
3. Other Hazardous Waste Operations. These include studies and the purchase of hardware to reduce hazardous waste generation, as well as one-time waste permit costs required under the Resource Conservation and Recovery Act.
4. Beginning in FY 1987 hazardous waste disposal was budgeted and executed through O&M.N. Prior to FY 1987 hazardous disposal was the responsibility of the Defense Logistics Agency (DLA). Effective FY 1990, funding responsibility for hazardous waste disposal has been transferred to hazardous waste generating activities.

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		
Operations Support - Field	1,492	1,314	1,314	1,745	1,840	1,897
Engr Field Divisions	61,892	49,607	49,259	49,777	49,635	50,208
Naval Energy & Environ.						
Support Activity (NEESA)	4,366	4,283	4,283	4,338	4,242	4,237
Environ. Restoration	101,135	22,837	22,837	104,340	780	804
Total Field Oper.:	168,885	78,041	77,693	160,200	56,497	57,146

7 0490

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		160,200
2. Pricing Adjustments		4,792
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(456)	
2) Wage Board	442	
	14	
B. FY 1990 Direct Pay Raises		
1) Classified	(623)	
	623	
C. Other Pricing Adjustments	(3,713)	
3. Functional Program Transfers		-39,919
A. Transfers Out	(-39,919)	
1) Decentralization of Hazardous Waste Disposal Program funding from NAVFACENCOM to Navy hazardous waste generating activities in FY 1990 to encourage reduction of waste generation.	-39,719	
2) 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.	-200	
4. Program Increases		5,682
A. Other Program growth in FY 1990	(5,682)	
1) Increased contract effort at Engineering Field Divisions (EFD's), to offset reduction in in-house workyear effort required to sustain major mission responsibilities.	5,682	
5. Program Decreases		-74,258
A. Other Program Decreases in FY 1990	(-74,258)	
1) Reduced EFD in-house workyear effort offset by expanded contracting effort to sustain major mission responsibilities.	-5,682	
2) The Navy's FY 1989 Installation Restoration Program was increased \$66.7 million by transfer from the DOD Environmental Restoration appropriation. Since transfers from this appropriation occur on an annual basis only during the year of execution, the budget necessarily reflects an FY 1990 decrease until the anticipated comparable transfer of FY 1990 funds to the Navy on 1 October 1989.	-68,576	

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

6. FY 1990 President's Budget Request	56,497
7. Pricing Adjustments	
A. Annualization of FY 1990 Direct Pay Raises	
1) Classified	(271) 271
B. FY 1991 Direct Pay Raises	
1) Classified	(1,021) 1,021
C. Other Pricing Adjustments	(249)
8. Program Decreases	
A. Other Program Decreases in FY 1991	-892
1) Decrease in overhead support due to economy and efficiency initiatives at the Engineering Field Divisions (EFDs).	(-892)
11. FY 1991 President's Budget Request	57,146

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria

Engineering Field Divisions (EFDs)

The performance criteria provided for Field Operations is broken down into three major categories; Engineering Field Divisions (EFDs), Navy Energy/Environmental Support Activity (NEESA) and the Environment Restoration Program (ERD) (They are preceded by capital alpha). The budgeted resource dollars in the EFDs and NEESA categories represent inhouse effort and related costs in support of the major mission responsibilities identified below each of these two categories. (The mission responsibilities are preceded by numerics.) The mission responsibilities are further broken down into units, such as products, actions and dollars associated with related programs/workload, in order to provide a concept of workload quantification for the effort associated with the fulfillment of these responsibilities. (These are preceded by lower case alpha characters.) The units/actions themselves do not necessarily relate one to one with resources that support them. Individual complexity, timing and other situational circumstances do not allow for a simple "average cost" per unit pricing approach. An example of this would be under Real Estate transactions where effort associated with a single land acquisition is dependent upon the circumstances unique to that acquisition and another similar action, because of its individual circumstances, may be more or less intensive.

A. Engineering Field Divisions (EFDs) (\$000):

	FY 1988	FY 1989	FY 1990	FY 1991
	\$61,892	\$49,777	\$49,635	\$50,208

1. Facilities/Base Planning and Real Estate Administ. (\$000)

	FY 1988	FY 1989	FY 1990	FY 1991
a. Facilities Requirements Plans (#):	132	105	65	55
b. Project Documentation Reviews (#):	1,280	1,022	985	980
c. Maintenance of Navy Facilities Assets Data Base (Average Number of Transactions) (#):	775	629	595	560
d. Master Plans & Other Base/Regional Planning Documents (#): (This includes inhouse support and oversight associated with Overseas and Conus Civil Engineering Support plans, Encroachment studies, Land Use plans, Capital Improvement plans, Special Planning studies, regional and systems studies, fleet readiness plans and continuity of operations plans.)	354	291	275	285

	FY 1988	FY 1989	FY 1990	FY 1991
	\$15,368	\$13,285	\$13,456	\$13,905

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

	FY 1988	FY 1989	FY 1990	FY 1991
e. Real Estate Transactions (#): (This includes inhouse support and oversight associated with major and minor acquisitions, major and minor disposals, Land Planning Reports, Real Estate Summary Maps, In-Grants and Out-Grants.)	1,250	1,014	1,000	1,000
f. Natural Resources Documents (#): (This includes inhouse support and oversight associated with Fish and Wildlife Plans, Land Management Plans, Outdoor Recreation Plans and Agreements and endangered species surveys.)	460	373	375	370
g. Public/Private Ventures (#)	8	8	8	6
2. Transportation and Other Facilities Support (\$000):	\$29,252	\$20,785	\$20,270	\$19,862
a. Design Service Requests (#):	510	409	425	440
b. Performance Standards, Surveys and Other Documents (#): (This includes inhouse support and oversight associated with initial and detailed Seismic Studies, Airfield Pavement Surveys, Fire Protection Surveys, Operation and Maintenance Manuals, Standard Performance Work Statements, Baseline Productivity Studies and Major and Minor CESE Management Improvement Studies.)	395	307	380	395
c. Activity Assistance visits, Audits and Validations (#):	302	235	242	250
d. Public Works Training Courses (#):	42	34	37	40
3. Collateral Equipment: (\$000):	\$340	\$300	\$357	\$369
a. Collateral Equipment Program Management; Program value (\$000):	\$32,975	\$11,743	\$36,562	\$28,225

7 0494

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

	FY 1988	FY 1989	FY 1990	FY 1991
4. Ocean Engineering (\$000):	\$1,108	\$1,130	\$1,145	\$1,183
a. Management of Ocean Construction Inventory; Value of Inventory (\$000)	\$24,000	\$26,000	\$27,000	\$28,000
b. Management/oversight of Ocean Construction Workload; Workload Volume (\$000)	\$47,000	\$50,000	\$50,000	\$50,000
5. Management of Navy Family Housing (\$000):	\$3,157	\$3,219	\$3,260	\$3,369
a. New Construction Program (\$000):	\$145,520	\$128,436	\$71,312	\$137,669
b. Improvement Program (\$000):	\$33,629	\$38,444	\$41,984	\$43,299
c. Planning and Design (\$000):	\$5,209	\$1,218	\$2,183	\$2,824
d. Operations and Maintenance Program (\$000):	\$423,595	\$451,266	\$537,207	\$593,404
6. Administration of the Navy Environmental Protection Program (\$000):	\$3,129	\$3,192	\$3,233	\$3,341
Pollution Abatement Program				
1. Conduct multi-media environmental assessments at Navy and Marine Corps Activities (#)	57	60	64	68
2. Execute the Pollution Abatement Program to correct environmental deficiencies under established public laws. Assist activities in meeting regulatory com- pliance deadlines in order to avoid Notice of Violations which could impact facility operations. Program Value (\$000)	\$22,376	\$15,039	\$18,021	\$20,188
3. Execute the Asbestos Abatement Program by assisting activities with asbestos inventories, assessments, and asbestos abatement in order to provide a safe working environment. Program Value (\$000)	\$2,151	\$3,604	\$4,092	\$4,382

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

4. Execute the NAVOSH Deficiency Abatement Program Ashore by assisting activities in eliminating serious health and safety hazards in order to comply with OSHA standards. Program Value (\$000)

	FY 1988	FY 1989	FY 1990	FY 1991
	\$7,859	\$9,439	\$9,147	\$9,491

7. Utilities; Engineering and Management Support to major claimants with regard to all Naval Shore Facilities

(#000):

- a. Utility Plant/Systems Assessment (#):
 b. Utilities Operation & Maintenance assistance visits (#):
 c. Waterfront Utilities Studies (#):
 d. Boiler/Unfired Pressure Vessels Inspections (#):
 e. Utility Vulnerability Assessment Validations (#):
 f. Coal Conversion Studies (Third Party Financing) (#):
 g. Utilities Mgmt. Modernization Assistance (#):
 h. Negotiation and Management of Commercial Utility Contracts (\$000):

	FY 1988	FY 1989	FY 1990	FY 1991
	\$7,415	\$6,787	\$6,874	\$7,104
	31	36	36	36
	31	36	36	36
	15	15	15	15
	565	565	565	565
	100	0	0	0
	3	0	0	0
	46	41	28	28
	\$771,800	\$811,900	\$836,500	\$862,400

8. Energy Engineering In Support of the Shore Establishment (\$000):

- a. Steam Trap Maintenance Programs (#):
 b. Single Building Controller Projects (#):
 c. Boiler/Chiller Plant Monitoring Systems (#):
 d. Energy Management Assessment and Assistance Visits/Compliance Assistance (#):
 e. Shared Energy Site Investigations (#):
 f. Shared Energy Contracts (#):
 g. Third Party Renewable Energy Contracts (#):
 h. Third Party Cogeneration Energy Contracts (#):
 i. Third Party Energy Contract Development (#):
 j. Third Party Energy Contract Administration (#):

	FY 1988	FY 1989	FY 1990	FY 1991
	\$2,123	\$1,079	\$1,040	\$1,075
	27	43	67	59
	7	10	12	12
	2	5	6	6
	27	44	44	44
	5	15	15	16
	5	13	20	20
	2	1	0	0
	2	1	0	0
	0	14	14	14
	0	10	16	22

7 0496

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

B. Navy Energy/Environmental Support Activity (NEESA) (\$000):

1. Utilities (\$000):

- a. Develop inspection and maintenance criteria and technology and evaluate against system performance (components) (#)
- b. Manage revision of Design manuals and operations manuals (documents) (#):
- c. Boiler plant remedial actions (activities) (#):
- d. Shared savings contract consultation and site investigation/validation (activities) (#):
- e. Electricity use and steam distribution surveys (activities) (#):
- f. Implement energy and utilities management technology at Navy activities (#):
- g. Provide expertise for Coal conversion (projects)(#):
- h. Manage data bases and prepare reports (ECR, EAR, DEIS II) (#):
- i. Cost management modernization pilots (#)
- j. Provide thermal plant technical assistance(plants)(#)
- k. Install computer managed maintenance modernization systems (systems) (#)
- l. Third Party Contract & Technical Support (projects) (#)
- m. Military Service Control Point for Coal Procurement (contracts supported) (#)

	FY 1988	FY 1989	FY 1990	FY 1991
	\$4,366	\$4,338	\$4,242	\$4,237
	\$1,248	\$1,248	\$1,248	\$1,248
	2	4	4	4
	2	1	1	1
	4	4	4	4
	10	14	14	14
	7	4	4	4
	3	5	5	5
	3	1	1	1
	17	11	11	11
	0	1	1	1
	10	3	3	3
	0	1	1	1
	0	0	0	0
	11	5	5	5

7 0497

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

	FY 1988	FY 1989	FY 1990	FY 1991
2. Environmental Program & Pollution Abatement (\$000):	\$2,586	\$2,580	\$2,489	\$2,484
a. Assist activities in air emission compliance with source emission tests, boilers power plants and emission trading (activities assisted) (#)	7	8	8	8
b. Implement hazardous waste minimization technology (activities) (#):	80	50	65	80
c. Refurbish oil skimmers (#)	8	8	8	8
d. Prepare environmental guides/reports (oil spill, PCB, HW, Pesticides, PCR) (#)	17	15	15	15
e. Provide environmental and safety & health training courses required by law (#)	29	36	36	36
f. Develop and provide information bulletins on laws and regulations (#)	10	12	12	12
g. Develop oil and hazardous substance plans (#):	9	7	7	7
3. Mobile Utility Support Equipment (MUSE) (\$000):	\$532	\$510	\$505	\$505
a. Develop specifications for equipment procurement and overhaul (#):	1	1	2	2
b. Manage procurement/overhaul contracts (#):	15	13	12	12
c. Provide engineering assistance to activities Deploying MUSE (#):	11	11	10	10
d. Inspect contractor progress on procurement/overhaul contracts (#)	44	42	43	43

7 0498

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

C. Environmental Restoration Program (ER.D) (\$000):
 This program facilitates the centralized execution of Navy efforts in the area of environmental restoration and hazardous waste disposal operations. The products associated with this program are realized through contracts.

Hazardous Waste Operations*
 Installation Restoration*
 Hazardous Waste Disposal

	FY 1988	FY 1989	FY 1990	FY 1991
	\$101.135	\$104.340	\$780**	\$804**
	8,794	7,000	0	0
	52,735	59,740	0	0
	39,606	37,600	780	804

1. Conduct Installation Restoration (IR) studies, investigations, and cleanup actions (#):

	136	140	160	200

2. Provide management information for all IR sites (# of Sites):

	806	820	840	860

* Funds transferred in annually from OSD appropriation.

** DOD has not determined the exact Program Values for Navy for FY 90-91. Anticipate approximately \$70M range.

D. Operations Support - Field (OSF)

(\$000)

	\$1,492	\$1,745	\$1,840	\$1,897

Workyears

	30	36	37	37

Major Functional Categories:

Legal

Provide legal advice and services in the area of business and commercial law, for real estate, construction, public utilities and public works including the legal aspects of:

- acquisition, custody, and disposal of real and personal property;
- procurement matters;
- industrial security; and
- opinions and approvals as to the legality of contracts.

7 0499

Activity Group: Field Operations (Continued)
Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

D. Operations Support - Field (OSF) (Continued)

Operational Research and Economic Analysis

Prepare independent scientific and technical analysis to identify and evaluate alternative courses of action which impact on Navy activities fleet support, fleet operating capabilities and force readiness. Conducts studies to determine means of achieving optimum allocation of resources in Field Operations.

Engineering Technical Services

Establishes engineering standards, criteria, manuals and directives on design and construction of structures and facilities.

- a) reviews problems in planning & design
- b) makes technical review of drawings and specifications
- c) determines applications
- d) initiates research projects new methods of design, analysis and construction
- e) creates schematics
- f) performs studies of operational requirements
- g) recommends adoption of new material and methods of construction
- h) provides testimony and technical advice
- i) certifies engineering systems

Model Installation Program Support Office (MIP)

1. Oversight and coordination of the Model Installation Program (MIP) and the Model Installation Graduate Program (MIGP).
 - a. Evaluates issues requesting authority to test waivers to headquarters policy and/or regulations; assists in evaluating the test results for potential Navy-wide implementation; and presents evaluations to the DON Flag Steering Group for Navy-wide policy determination. Also, monitors implementation actions by cognizant Navy authorities.
 - b. Coordinates Navy's participation in OSD's Unified Test and interface between NAVCOMPT and Navy test sites.
 - c. Coordinates with other DOD components to exchange like issues and to achieve improvements to DOD policies and regulations. Also, coordinates with OASD (S&I) and HQ Marine Corps on program matters requiring a DOD perspective.
 - d. Maintains Navy's database of program actions and benefits derived.

Activity Group: Field Operations (Continued)
 Claimant: Naval Facilities Engineering Command

IV. Personnel Summary:

	FY 1988	FY 1989	FY 1990	FY 1991
<u>End Strength (E/S)</u>				
A. <u>Military</u>				
Officer	139	139	139	139
Enlisted	98	97	97	97
	41	42	42	42
B. <u>Civilian</u>				
USDH	1,449	1,139	1,254	1,239
	1,449	1,139	1,254	1,239

7 0501

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

Activity Group: Logistics Support Services

Budget Activity: 7-Central Supply and Maintenance

Claimant: Naval Facilities Engineering Command

I. Description of Operations Financed.

Funding supports shore facilities and fleet support programs which are the responsibility of the Naval Facilities Engineering Command and include: (a) Collateral Equipment Program which provides centralized funding for collateral equipment required to initially outfit new military construction at naval activities throughout the shore establishment; (b) Engineering Investigations Program which provides engineering investigations, feasibility studies and surveys for more than 700 naval activities; (c) Inspection of Radio Towers Program provides direct support to the fleet through structural inspection of radio towers; (d) Chemical, Biological, and Radiological (CBR) Warfare Protection Program which provides protective masks, suits, and meters to counter the effects of CBR warfare; (e) Planning Studies Program provides architectural and engineering services and studies, computer support, mapping support and specialized industrial support studies; (f) Pollution Abatement Program identifies pollution abatement deficiencies, develops technical solutions and provides technical assistance to all Navy field activities to comply with various public laws; (g) Federal Military Standards and Specifications Program provides for development, review, conversion, consultation and publications of federal and military specifications; (h) Fleet Moorings Program provides for the installation, relocation, inspection, maintenance and repair of moorings; (i) the Ocean Facilities Program provides for the maintenance, repair and overhaul of specialized ocean construction equipment; and (j) Materials Technology, which consists of (1) Public Works Support; (2) non-2C equipment used by the Naval Construction Force; (3) Energy Engineering; and (4) Third Party Financing Venture Capital Funding.

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

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		
Collateral Equipment	32,975	11,743	11,743	11,743	36,562	28,225
Inspection Radio	260	361	361	361	368	378
Engr. Invest.	3,402	1,561	1,561	1,506	2,294	2,337
Planning Studies	4,212	4,220	4,220	4,185	4,303	3,885
* Chemical Biol..Radiol.	3,038	(1,274)	(1,274)	1,274	7,499	7,140
Fleet Moorings	4,253	4,286	4,286	4,286	4,006	3,915
Ocean Facilities	1,233	1,463	1,463	1,463	1,158	1,122
Federal Military Stds.	2,577	2,438	2,438	2,474	2,115	1,907
Pollution Abatement	20,698	15,039	15,039	15,039	16,767	19,452
Materials Technology	5,275	8,339	5,989	5,768	4,653	4,707
Total Log. Sr+ Svcs:	77,923	49,450	47,100	48,099	79,725	73,068

* Chemical/Biological/Radiological line was included in Materials Technology line in the FY 1989 Amended President's Budget, and FY 1989 Authorization.

7 0503

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

B. Reconciliation of Increases and Decreases.		
1. FY 1989 Current Estimate		48,099
2. Pricing Adjustments		
A. Stock Fund	(317)	1,691
1) Non-Fuel	317	
B. Industrial Fund Rates	(179)	
C. Other Pricing Adjustments	(1,195)	
3. Program Increases		33,955
A. Other Program Growth in FY 1990	(33,955)	
1) Increased funding for Collateral Equipment, to outfit MILCON Projects reaching their building occupancy dates (BOD's). This funding will reduce the substantial Collateral Equipment backlog caused by constrained FY 1989 funding.	24,972	
2) Increase to reduce Engineering Investigations Program backlog for standard designs on Jet/Turbo/Missile Test Cells.	586	
3) Funding increase to meet regulatory compliance deadlines for Underground Storage Tank (UST) leak detection and Polychlorinated Biphenyl (PCB) transformer replacement projects.	1,371	
4) Increase in Chemical/Biological/Radiological Program (CBR) to outfit overseas bases with Protective equipment in areas with risk of attack by Chemical Weapons.	7,026	

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

8. Reconciliation of Increases and Decreases (Continued)

4. Program Decreases -4,020

A. Other Program Decreases in FY 1990 (-4,020)

- 1) Decrease in Federal/Military Standards and Specifications Design Criteria Program due to funding constraints. -470
- 2) Fleet Moorings Program Reduction reducing Fleet Moorings upgrade effort due to funding constraints. -430
- 3) Reduction in Public/Private (P/PV) development (Third Party Financing) Program due to funding constraints. -210
- 4) Elimination of funding for energy related "New Initiatives" due to fiscal constraints. -2,462
- 5) Ocean Facilities reduction to "normal level" after substantial overhaul year and decreased maintenance funding. -380
- 6) Decrease in Facilities Planning Studies, including Complex and Activity master plans due to funding constraints. -68

5. FY 1990 President's Budget Request 79,725

6. Pricing Adjustments 2,464

A. Stock Fund (712)

- 1) Non-fuel 712

B. Industrial Fund Rates (88)

C. Other Pricing Adjustments (1,664)

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

8. Reconciliation of Increases and Decreases (Continued)

7. Program Increases	2,129	
A. Pollution Abatement funding required to continue completion of critical PCB transformer replacement projects and pollution control projects to comply with Federal/EPA requirements.	2,129	
8. Program Decreases		-11,250
A. Decrease in Federal/Military Standards and Specification Design Criteria Program due to funding constraints.	-310	
B. Fleet Moorings reduction eliminating two (2) fleet mooring overhaul projects from the FY 1990 level.	-304	
C. Ocean Facilities reduction to equipment maintenance effort due to funding constraints.	-129	
D. Decrease in Facilities Planning Studies, including Base and Activity Master Plans.	-524	
E. Decrease in Collateral Equipment Outfitting requirements.	-9,983	
9. FY 1991 President's Budget Request		73,068

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria

Collateral Equipment

The FY 1988 thru FY 1991 budget includes resources for initial outfitting of Congressionally authorized Military Construction, Navy (MCON) projects and the Government of Japan (GOJ) Relocation and Facilities Improvement Programs.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Initial Outfitting-MCON (000)	32,975	11,743	36,562	28,225

Inspection of Radio Towers

Radio tower inspections are performed by professional contractual personnel who provide early detection of potential problem areas, prevent possible structural tower failure, and identify maintenance deficiencies so that they may save extensive rehabilitation costs.

The present scope includes examination of individual elements, rate of deterioration, effect of damage, necessity for repair, tower verticality, and rod alignment. Additionally, the following requirements are included in all contracts:

- Inspect all counterweight subsystems
- Inspect all top hat subsystems
- Inspect all feed line subsystems
- Inspect all cables in running rigging subsystems
- Inspect a random sampling of bolts for corrosion

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
DOLLARS (\$000's)	260	361	368	378

Towers Inspected	156	91	246	85

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

The frequency of radio tower inspections vary due to several reasons. Namely, certain activities inspect their towers on a two year frequency and others on a four year frequency. In FY 1991 there is a preponderance of 1200-1500 foot towers which are fewer in number but more costly per unit while in FY 1990 there is a large number of 100-300-towers spread throughout the Pacific.

Engineering Investigations

The Engineering Investigations (E.I.) Program provides immediate access to the private sector and laboratories via contract and is a key element in the Naval Facilities Engineering Command's ability to mobilize quickly the skills, talents, and knowledge required to resolve facilities' problems in four important areas: (1) Criteria, (2) Recurring Engineering Investigation Projects, (3) Seismic engineering, and (4) Unpredictable project requirements for more than 700 Naval activities.

	FY 1988	FY 1989	FY 1990	FY 1991
DOLLARS (\$000's)	3,402	1,506	2,294	2,337
Number of Investigations	26	14	26	23

Planning Studies

This program provides planning studies, including Complex and Activity Master Plans, for Navy shore activities using Architectural and Engineering (A&E) contracts. Contracted studies supplement those accomplished using in-house capability at NAVFAC Engineering Field Divisions and Public Works Centers. This program also funds computerized planning systems which support in-house planning capability.

	FY 1988	FY 1989	FY 1990	FY 1991
	No.	No.	No.	No.
	\$	\$	\$	\$
A&E Fac Plng Studies	18 1,040	6 746	6 760	5 675
A&E Encroachment Studies	1 20	1 75	1 75	1 68
A&E Planning Studies	37 2,340	23 2,587	24 2,668	21 2,342
ADP Support	N/A 812	N/A 777	N/A 800	N/A 800
Total Dollars (\$000)	57 4,212	30 4,185	31 4,303	27 3,885

7 0508

Activity Group: Logistics Support Services (Continued)
Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

Funds are used to provide intermediate products as well as final products. For instance, A&E Planning Studies buys noise studies which are used in writing Air Installation Compatible Use Zone Chapters (AICUZ) for master plans as well as activity and complex master plans. Studies vary significantly in scope and the length of time required for accomplishment. For instance, Master Plans for New York and Gulf Homeports have spanned several years and have been supported with substantial cumulative funds to date.

Chemical, Biological, Radiological

Chemical, Biological, Radiological (CBR) warfare program, which is part of the initiative by the Navy to equip Naval Construction Force (NCF) and overseas base personnel with protective clothing, detectors, decontamination equipment and protective structures to counter the effects of chemical warfare.

Individual Protective Equipment (IPE)- Includes Masks, Protective Suits, Boots, Gloves, Medications, Individual Decontamination Materials, and other required materials required by individuals to survive in a chemically contaminated environment.

Survivable Collective Protective System-Navy (SCPS-N)- O&M,N required funding to support the installation, testing, and evaluation of the Survivable Collective Protective System-Navy (SCPS-N) at various overseas bases.

	FY 1988	FY 1989	FY 1990	FY 1991
Individual Protective Equipment	2,733	649	7,349	6,990
Survivable Collective Protective System-Navy	305	625	150	150
TOTALS (\$000's)	3,038	1,274	7,499	7,140

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

Fleet Moorings

Within the expanded Navy concept, it is projected that a 25% increase in the number of moorings will be required to support the fleet. Changes in ship design will necessitate mooring replacement to increase chain size and holdings capacities. Also, approximately 62% of the existing assets either need partial restoration or require total replacement. Accordingly, the funds will be used for conducting underwater inspections.

	FY 1988		FY 1989		FY 1990		FY 1991	
	No.	\$	No.	\$	No.	\$	No.	\$
Overhauls/Repairs	4	300	8	600	17	900	13	919
Upgrades-New chain/cathodic protect.	44	2980	37	3016	37	2539	32	2531
Cyclical Inspection	120	350	131	385	88	400	111	465
Installation of Moorings	3	623	1	285	1	167	-	-
TOTAL DOLLARS (\$000's)		\$4253		\$4286		\$4006		\$3915

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

Ocean Facilities

The Ocean Facilities Program provides for the overhaul, maintenance, and repair of ocean construction equipment in the Ocean Construction Equipment Inventory (OCEI). This equipment provides the Underwater Construction Teams of the Naval Construction Force (NCF/UCT) with the capability to respond to and fulfill both exigent and planned Fleet needs for construction, inspection, maintenance, and repair of high value ocean and underwater facilities. This line also supports the acquisition of the Initial Issue of Arctic and the other TOA items which are transitioning out of R&D, and the development of the required manuals. The acquisitions are needed in order to provide required new capabilities in the NCF/UCT's.

The equipment in the OCEI must be maintained in Ready for Issue (RFI) condition for the Fleet. Specifically, 90% of all regular OCEI items must be RFI on 48-hours notice, to match NCF/UCT mission requirements. Similarly, 80% of the heavy lift equipment in the OCEI must be RFI on 14-days notice. On average, these requirements have not been met for the last several years due to fiscal constraints. The current value of the OCEI inventory is \$24M. Current construction workload is \$47M. The general allocation of funds is:

	FY 1988	FY 1989	FY 1990	FY 1991
Maintenance and overhaul of the Ocean Construction Equip. Inventory	743	923	693	652
Replacement and Spare Parts	60	90	60	60
Facilities Support and Maintenance	85	90	95	100
New Equipment (under OPN threshold)	60	70	60	60
Acquisition of Initial Issue Arctic TOA for NCF/UCT	200	200	100	100
Manual Development	85	90	150	150
TOTAL DOLLARS (\$000's)	1,233	1,463	1,158	1,122

7 0511

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

Federal Military Standards

This workload is developed from procurement contract requirements, and various specifications and standards that require initial development, revision, and review.

A. DOD STANDARDIZATION PROGRAM	FY 1988	FY 1989	FY 1990	FY 1991
1. Update Mil/Fed Specs.	130	132	125	110
2. Adopt Non-Govt. Stds	350	350	325	275
3. Manage 22 Federal Supply Cases	22	22	22	22
4. Manage Contractually Acquired Data (Cont. \$ in Millions)	\$300M	\$300M	\$250M	\$200M
5. Define NAVFAC Requirements (in Doc.'s Prep. by Others)	2500	2500	2000	1800
6. Special Tasks for DOD (Mostly Continuous)	22	20	18	16
B. MANAGE & IMPROVE "CRITERIA SYSTEMS" (3: CCB, SPECSINTACT, ECMS)	3	1	1	1
C. REVIEW ALL NAVFAC MASTER CRITERIA FOR SAFETY & HEALTH DEFICIENCIES (2000 Documents)	3	1	1	1
DOLLARS (\$000)	2,577	2,474	2,115	1,907

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

Pollution Abatement

Pollution abatement projects are based upon the need to correct environmental deficiencies under an established public law. The following matrix reflects the funding plan by number of projects under a specific environmental regulatory program.

	FY 1988		FY 1989		FY 1990		FY 1991	
	# OF PROJS	COST (\$000)	# OF PROJS	COST (\$000)	# OF PROJS	COST (\$000)	# OF PROJS	COST (\$000)
AIR	6	1,944	5	1,298	2	1,093	3	1,201
WATER	28	6,594	17	5,366	27	5,319	55	8,489
NOISE	-	200	-	215	-	221	-	228
SOLID WASTE	67	11,874	50	8,067	102	9,999	39	9,441
PESTICIDES	-	86	1	93	2	135	-	93
TOTAL DOLLARS (\$000)	101	20,698	73	15,039	133	16,767	97	19,452

Activity Group: Logistics Support Services (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

MATERIALS TECHNOLOGY

Public Works Support

This line item includes four programs - Public Works Management Automation (PWMA), formerly BEST, which provides for software maintenance, installation, and training of public works personnel; Base Operating Support (BOS) which provides resources for the development and implementation of an automated system designed to improve the Navy's management of Base Operating Support functions; Engineering Performance Standards (EPS) program which provides funds for Army, Air Force, and Marine Corps EPS Utilization studies; and Specialized Inspections whose funds are used to conduct roof moisture surveys and underwater waterfront inspections for shore activities.

	FY 1988	FY 1989	FY 1990	FY 1991
DOLLARS (\$000's)	1,789	2,142	2,187	2,185

Public/Private Venture (P/PV) Development

(Third Party Financing)

Congress has encouraged or directed the services to consider use of this alternative, formerly known as Third Party Financing, for a number of functions, facilities, or services. Funds are provided to evaluate programs in which P/PV might be viable, to develop guidance for implementing such projects, and to initiate execution of prototypical P/PV efforts. Specific areas to be studied include: Family and Bachelor Housing; Administrative and Logistic Support; Utilities; and Morale, Welfare and Recreation, including Child Care Centers.

	FY 1988	FY 1989	FY 1990	FY 1991
Dollars (\$000)	1,995	2,059	828	914

Energy Engineering (EEP/ETAP)

Energy Engineering, EEP/ETAP, in support of the shore establishment includes steam trap maintenance, single building controller projects, boiler/chiller plant monitoring systems, energy management assessment and assistance visits/compliance assistance, shared energy site investigations, shared energy contracts, third party renewable energy contracts, third party energy cogeneration energy contracts, third party energy contract development, and third party energy contract administration.

	FY 1988	FY 1989	FY 1990	FY 1991
Dollars (\$000)	919	1,027	1,079	1,121

Activity Group: Logistics Support Services (Continued)
Claimant: Naval Facilities Engineering Command

III. Performance Criteria (Continued)

QDD COG

Non - 2C Cog Equipment replaces wornout pieces and accommodates changes to the Table of Allowances for the Naval Construction Force (NCF).

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Dollars (\$000)	504	540	559	487

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
MATERIALS TECHNOLOGY TOTAL (\$000)	5,275	5,768	4,653	4,707

V. Personnel Summary:

NO DIRECT FUNDED PERSONNEL ARE ASSOCIATED WITH THE FUNDING OF THIS PROGRAM

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

Activity Group: Maintenance and Repair
Budget Activity: 7-Central Supply and Maintenance
Claimant: Naval Facilities Engineering Command

I. Description of Operations Financed.

Maintenance of Real Property supports repair of and minor construction additions to naval facilities which are critical to preservation of fleet support activities. The sub-activities included under the Real Property Maintenance group are described below:

A. Maintenance/Repair

1. Facilities Maintenance - finances routinely scheduled maintenance and emergency repairs for NAVFAC field activities, including historic family quarters starting in FY 1989.
2. Major Repair - finances more substantial maintenance projects over \$75 thousand which are required to bring existing facilities into adequate condition to permit activities to fulfill their assigned mission. Also included is the cost of the administration and contract execution of the entire Navy/Marine Corps Operations and Maintenance Repair Projects program by the Engineering Field Divisions; and the cost of projects specifically designed to correct facility deficiencies relating to the Navy's Occupational Safety and Health Program.

- B. Minor Construction - finances projects under \$200 thousand for alterations to facilities, extensions of utility systems, additions to existing facilities, replacement of damaged or deteriorated facilities. In addition, the installation of equipment which is made part of a facility to permit activities to accomplish their assigned mission is also financed in this sub-activity group. Also funds minor construction relating to the Navy's Occupational Safety.

II. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout.

	FY 1988 Actual	FY 1989			FY 1990	
		Amended Pres. Budget	Appro- priation	Current Estimate	Budget Request	Budget Request
Maintenance and Repair	81,425	84,336	83,958	86,926	77,481	81,165
Minor Construction	9,163	8,176	8,176	8,176	8,634	8,828
Total Maintenance of Real Property (BA-7)	87,588	92,512	92,134	95,102	86,115	89,993
						7 0516

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Naval Facilities Engineering Command

B. Reconciliation of Increases and Decreases.		
1. FY 1989 Current Estimate		95,102
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		
1. Classified	(477)	
2. Wage Board	445	3,558
b. FY 1990 Direct Pay Raises		
1. Classified	(661)	
2. Wage Board	628	
c. Stock Fund Rates		
1) Non-fuel	(-14)	
d. Industrial Fund Rates	-14	
e. Foreign Currency Fluctuations	(233)	
f. FN Indirect Hire	(857)	
g. Other Pricing Adjustments	(121)	
h. Functional Program Transfers	(1,223)	
A. Transfers Out		-258
1) Inter-appropriation	(-258)	
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.		-258

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Naval Facilities Engineering Command

B. Reconciliation of Increases and Decreases (Continued)

4. Program Decreases			
A. Reduction in maintenance and repair effort across-the-board due to fiscal constraints.	-12,287		-12,287
5. FY 1990 Budget Request			86,115
6. Pricing Adjustments			2,477
A. Annualization of FY 1990 Civilian pay raise	(284)		
1) Classified	244		
2) Wage Board	40		
B. FY 1991 Direct Pay Raise	(977)		
1) Classified	916		
2) Wage Board	61		
C. Stock Fund Rates	(26)		
1. Non-fuel	26		
D. Industrial Fund Rates	(165)		
E. FM Indirect Hire	(144)		
F. Other Pricing Adjustments	(881)		
7. Program Increases			1,401
A. Increased effort in maintenance and repair to reduce backlog associated with FY 1990 fiscal constraints.			1,401
8. FY 1991 Budget Request			89,993

Activity Group: Maintenance of Real Property (Continued)
Claimant: Naval Facilities Engineering Command

III. Performance Criteria (\$000)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Backlog, Maintenance/Repair (\$000)	46,842	58,494	66,698	79,041
Total Buildings (KSF)	10,513	10,760	11,484	11,492

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Naval Facilities Engineering Command

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. Military				
Officer	58	57	57	57
Enlisted	10	10	10	10
	48	47	47	47
B. Civilian				
USDH	1,415	1,441	1,349	1,360
FNTH	1,278	1,304	1,212	1,223
	137	137	137	137

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

Activity Group: Other Base Operations
Budget Activity: 7-Central Supply and Maintenance
Claimant: Naval Facilities Engineering Command

I. Description of Operations Financed.

The Other Base Operations Program involves support of fourteen functions (sub-activities) related to operation of various field activities which are under Naval Facilities Engineering Command (NAVFAC) direction. Also included is a number of centrally managed Navy world-wide programs. The sub-activities included under the Other Base Operations program are described below:

A. Utility Operations. Included are costs of purchased utilities and also utility system generation/ distribution costs where applicable at all field activities under NAVFAC direction. The Mobile Utility Support Equipment (MUSE) Overhaul Program finances the repair of portable steam plants, electric substation, and power generators. The Coal and Water Analysis Program supports quality testing of coal burned at naval facilities and water treatment testing for boilers.

B. Personnel Operations.

1. Bachelor Housing. Provides support for the operation of barracks, personnel housing, BOOs, BEQs and the purchase and maintenance of personnel support equipment related to the housing of personnel.
2. Other Personnel Support. Provides for food service facilities (mess halls, galleys), sales activities, laundry and dry cleaning facilities and initial procurement, repair, and replacement of furniture and furnishings.
3. Morale, Welfare and Recreation. Provides appropriated fund support for shore based recreation activities, special services, personnel support equipment, libraries, clubs and military and civilian dependents general recreation as authorized.

Activity Group: Other Base Operations (Continued)
Claimant: Naval Facilities Engineering Command

1. Description of Operations Financed, (Continued)

C. Base Operations - Mission.

1. Retail Supply Operations. This function involves storage of Seabee support material inventories prior to issuance worldwide, as well as procurement and other activities common to an organic supply department.
2. Maintenance of Installation Equipment. Included in this sub-activity group is maintenance of plant equipment at Construction Battalion Centers. Overhaul of NAVFAC-owned service craft such as working tugs employed at coastal facilities is also funded here.
3. Other Base Services. The costs budgeted here are for base transportation and associated vehicle/craft operation and routine maintenance. Also included is the centrally managed program for Civil Engineering Equipment Overhaul which covers periodic rehabilitation of heavy engineering equipment used world-wide. Operation of Family Service Centers at major NAVFAC field activities is also covered here.

D. Base Operations - Ownership.

1. Engineering Support. This area includes public works administration, custodial services, garbage collection, facility inspection, and firefighting services performed at NAVFAC activities.
2. Administration. Funding covers costs of financial management operations, as well as personnel and training offices, at Construction Battalion Centers and the Naval Support Facility.
3. Automated Data Processing. This sub-activity group is composed of the management support costs of in-house computer programming, as well as equipment rental and other contractual ADP purchases.
4. Hazardous Waste Operations. Provides for major asbestos removal projects.
5. Physical Security. Provides for lock security specifications and physical security program management at the Engineering Field Divisions and other field activities.

E. Base Communications

Base Communications represents the cost incurred by Headquarters, Naval Facilities Engineering Command, the six Engineering Field Divisions, and the three Construction Battalion Centers for telecommunications requirements. Specifically, these requirements include equipment rental; rental of leased communication lines to operate rapid communication and administrative telephones; and telephone services including toll charges.

7 0522

Activity Group: Other Base Operations (Continued)
 Claimant: Naval Facilities Engineering Command

II. Financial Summary (Dollars in Thousands)

A. Sub-Activity Group Breakout.

		<u>FY 1989</u>				<u>FY 1990</u>	<u>FY 1991</u>
	<u>FY 1988</u>	<u>Amended</u>	<u>Appro-</u>	<u>Current</u>		<u>Budget</u>	<u>Budget/</u>
	<u>Actual</u>	<u>Budget</u>	<u>priation</u>	<u>Estimate</u>		<u>Request</u>	<u>Request</u>
Other Base Operations:							
Oper of Utilities	8,173	8,202	8,136	8,153	7,773	8,144	8,144
Personnel Operations	4,255	3,855	3,821	3,854	3,531	3,639	3,639
Mission Operations	32,004	33,616	33,182	32,546	34,097	35,941	35,941
Ownership Operations	42,276	50,966	39,320	40,410	40,510	42,759	42,759
Base Communications	2,791	4,239	4,213	3,213	2,783	3,392	3,392
Total Other Base Operations	89,499	100,878	88,672	88,176	88,694	93,875	93,875

7 0523

Activity Group: Other Base Operations (Continued)
 Claimant: Naval Facilities Engineering Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate	88,176	
2. Pricing Adjustments		
A. Annualization of 4.1% FY 1989 Civilian pay raise		
1) Classified	(375)	
2) Wage Board	275	
B. FY 1990 Direct Pay Raises	100	
1) Classified	(498)	
2) Wage Board	389	
C. Stock Fund	109	
1) Fuel	(-99)	
2) Non-fuel	-65	
D. Industrial Fund Rates	-34	
E. Foreign Currency Fluctuations	(404)	
F. FN Indirect Hire	(1,363)	
G. Other Pricing Adjustments	(192)	
H. Functional Program Transfers	(917)	
A. Transfers In		292
1) Functional Transfer in, of Defense Data Network (DDN) Funding to individual users to encourage savings by making users directly responsible for payment of their own DDN usage.	(392)	
B. Transfers Out		392
1) 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.	(-100)	
		-100

Activity Group: Other Base Operations (Continued)
 Claimant: Naval Facilities Engineering Command

8. Reconciliation of Increases and Decreases (Continued)		
4. Program Decreases		-3,424
A. Deferral of non-reimbursed Other Engineering Support workload at Public Works Centers into FY 1991, due to FY 1990 fiscal constraints.	-1,308	
B. Decrease reflects a realignment of Industrial Preparedness type support costs to the Navy Industrial Fund (NIF) to charge customers for this effort.	-2,116	
5. FY 1990 Budget Request		88,694
6. Pricing Adjustments		2,574
A. Annualization of FY 1990 Direct Pay Raise	(308)	
1) Classified	179	
2) Wage Board	129	
B. FY 1991 Direct Civilian pay raise	(868)	
1) Classified	674	
2) Wage Board	194	
C. Stock Fund	(107)	
1) Fuel	33	
2) Non-Fuel	74	
D. Industrial Fund Rates	(234)	
E. FN Indirect Hire	(228)	
F. Other Pricing Adjustments	(829)	
7. Program Increases		2,607
A. Increased effort in Civil Engineering Equipment Overhaul (CELO).	900	
B. Increased non-reimbursable engineering effort at Public Works Centers.	1,707	
8. FY 1991 President's Budget Request		93,875

Activity Group: Other Base Operations (Continued)
 Claimant: Naval Facilities Engineering Command

III. Performance Criteria

	FY 1988	FY 1989	FY 1990	FY 1991
Oper of Utilities				
Total Energy Consumed MBTU's	185,476	197,024	219,802	224,319
Total Non-energy Consumed (000 Gal)	620,025	623,927	640,927	640,927
Base Communications				
No. of Instruments	11,663	11,663	11,663	11,663
No. of Main Lines	7,939	7,939	7,939	7,939
Daily Avg. Msg. Traffic	303	303	303	303
Personnel Operations				
Bachelor Housing (\$000)	488	448	461	475
No. of Officer Qtrs.	93	138	150	150
No. of Enlisted Qtrs.	4,077	4,301	4,301	4,514
Other Personnel Support (\$000)				
Population Served, Total	2,388	2,428	2,269	2,290
(Military E/S)	34,748	35,348	35,348	35,348
(Civ/Dep. E/S)	(11,546)	(12,146)	(12,146)	(12,146)
	(23,202)	(23,202)	(23,202)	(23,202)
Morale, Welfare, & Rec (\$000)				
Population Served, Total	1,379	978	801	874
(Military E/S)	35,238	35,238	35,238	35,238
(Civ/Dep. E/S)	(11,546)	(11,546)	(11,546)	(11,546)
	(23,692)	(23,692)	(23,692)	(23,692)
Base Ops - Mission Operations				
Retail Supply Operations (\$000)	18,537	18,380	18,994	19,354
Line Items Carried	110	113	119	122
Receipts (\$000)	240	247	254	261
Issues (\$000)	269	295	299	306
Maint. Install. Equip. (\$000)				
Other Base Services (\$000)	4,877	6,246	6,492	6,562
No. of Motor Vehicles, Total	8,590	7,920	8,611	10,025
(Owned)	1,544	1,544	1,544	1,544
(Leased)	(1,392)	(1,392)	(1,392)	(1,392)
	(152)	(152)	(152)	(152)
Ownership Operations				
Other Engineering Support (\$000)	27,026	27,427	26,720	28,537
Administration (\$000)	9,400	8,551	8,539	8,785
No. of Bases, Total	4	4	4	4
(CONUS)	(3)	(3)	(3)	(3)
Overseas)	(1)	(1)	(1)	(1)

Activity Group: Other Base Operations (Continued)
 Claimant: Naval Facilities Engineering Command

IV. Personnel Summary:

	FY 1988	FY 1989	FY 1990	FY 1991
End Strength (E/S)				
A. Military				
Officer	876	899	911	921
Enlisted	453	477	491	493
	423	422	420	428
B. Civilian				
USDH	1,590	1,603	1,608	1,603
FNTH	1,419	1,435	1,440	1,435
	171	168	168	168

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

Activity Group: Electronic Systems Rework and Maintenance
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Descriptions of Operations Financed.

22 Cog Electronic Restoration Program - Supports the overhaul of shipboard systems through depots consisting of SPAWAR field activities, shipyards, supply centers, weapon stations, and Contractor Engineering and Technical Services. The mission of this program is to ensure maximum readiness of command and control equipment in Naval ships and supporting shore stations. The program ensures availability of Navy owned equipment as an alternative to new procurements in support of requirements identified by fleet users and scheduled fleet installations. System components and equipment are sent to a Designated Overhaul Point (DOP) and dismantled, rebuilt, bench-checked and operationally tested prior to reissue. Larger systems are overhauled in place by skilled field teams on a scheduled basis to preclude loss of extended operational capability. SPAWAR uses NAVSEA shipyards to augment a segment of the 22 Cog equipment restoration program.

Coast Guard Support - This program provides reimbursement to the Coast Guard for installation of new electronic equipment to replace obsolete Navy-owned equipment, and for the overhaul and maintenance of electronic equipment furnished by the Navy under an agreement between the Department of the Navy and the Department of Transportation. The electronic material provided to the Coast Guard consists of shipboard electronic test equipment, components and subassemblies which ensure Coast Guard readiness for wartime service with the Navy.

Marine Air Traffic Control Squadron (MATCS) - The MATCS Depot Maintenance program provides for the complete restoration of system/sub-system end items according to a predetermined duty cycle supporting Marine Corps aviation combat readiness. An intensive inspection and field maintenance reporting system identify components of tactical units for induction into depot facilities for the restoration/overhaul process. Many of these equipments are Vietnam vintage and remain mission ready only by virtue of depot capabilities. Depot rework increases system availability and provides safety of flight margins that greatly reduce risks of aircraft and pilot loss.

Activity Group: Electronic Systems Rework and Maintenance (Continued)
 Claimant: Space and Naval Warfare Systems Command

I. Descriptions of Operations Financed (Continued).

Precise Time and Time Interval (PTI) Depot Support - This program provides depot level repair and maintenance of Verdin O-1695 Cesium Beam Frequency Standards (CBFS), which require an emergency replacement capability for inoperative units aboard nuclear submarines; the AN/URQ-23 Frequency Time Standard; and the SG-1157/V Digital Processing Clock.

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
22 Cog Restoration	5,596	6,048	6,048	5,994	6,098	5,534
Coast Guard Support	1,851	2,663	2,663	2,663	5,209	5,374
MATCS	1,574	2,481	2,481	2,455	1,656	2,303
PTI	204	346	346	347	309	401
Total	9,225	11,538	11,538	11,459	13,272	13,612

Activity Group: Electronic Systems Rework and Maintenance (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$11,459
2. Pricing Adjustments		279
A. Industrial Fund Rates	(76)	
B. Stock Fund	(-43)	
1) Non-Fuel	-43	
C. Other Pricing Adjustments	(246)	
3. Functional Program Transfers		-28
1) Inter-Appropriation	(-28)	
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 (-28).		
4. Program Increases		3,131
A. Other Program Increases in FY 1990		
22 COG RESTORATION	(3,131)	
Increase provides for restoration of 1 Satellite Communication unit (30); 18 Submarine Antennas (100); and 3 Outboards (105).	235	
COAST GUARD SUPPORT		
Increase provides for overhaul of 1,484 additional units. Backlog of new maintenance items will be reduced to zero in FY 1990 (2,455).	2,455	
MATCS		
Increase provides for restoration of 5 Multi Mode Displays AN/UHQ-34 (375) and 20 Radios (54).	429	

Activity Group: Electronic Systems Rework and Maintenance (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

PTTI
 Reflects increase in the number of calibrations and repairs of 5 Other Clocks (6) and 10 Time Frequency Equipments (6). Additional calibrations and repairs are required because approximately 240 Cesium Beam Frequency Standards for AN/SSN-2(V) Precise Integrated Navigation System on minesweepers and submarines have been added to the Navy inventory since 1984 to meet increased requirements.

12

5. Program Decreases

A. Other Program Decreases in FY 1990

22 COG RESTORATION

Reflects reduction in restoration of 58 General Communication units (-211).

(-1,569)
 -211

-1,569

MATCS

Reflects reductions in restoration of 4 UHF Beacons, 2 Radio Relay Links, 4 Mobile ATC Towers, 7 Generators, 4 Antennas, 1 TACAN, and reductions in Depot Level Repairables (DLR's) (-1,297).

-1,297

PTTI

Reflects decrease in 97 cesium standard calibration repairs (-61).

-61

6. FY 1990 President's Budget Request

\$13,272

7. Pricing Adjustments

A. Stock Fund

1) Non-Fuel

B. Industrial Fund Rates

C. Other Pricing Adjustments

(41)

41

(42)

(296)

379

7 0531

Activity Group: Electronic Systems Rework and Maintenance (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

8. Program Increases		1,678
A. Other Program Growth in FY 1991	(1,678)	
<u>22 Cog Restoration</u>	82	
Increase in the restoration of 22 General Communications units (82).		
<u>COAST GUARD SUPPORT</u>	9	
Increase provides for the overhaul of 5 additional units and reduces unfunded backlog of new FY 1991 maintenance actions to 163 backlogs (9).		
<u>MATCS</u>	1,500	
Increase provides for restoration of 1 Precision Approach Radar (1,500).		
<u>PTTI</u>	87	
Reflects increase in the number of calibrations and repairs of 101 Cesium Beam (74) Standards and of 8 Other Clocks (13). Additional calibrations and repairs are required because approximately 240 Cesium Beam Frequency Standards for AN/SSN-2(V) Precise Integrated Navigation System on minesweepers and submarines have been added to the Navy inventory since 1984 to meet increased requirements.		
9. Program Decreases		-1,717
A. Other Program Decreases in FY 1991	(-1,717)	
<u>22 COG RESTORATION</u>	-810	
Reflects a decrease in 4 Satellite Communication Units (-97); 6 Outboards (-246) and 2 NTDS (-467).		
<u>MATCS</u>	-903	
Reflects reductions in restoration of 2 Instrument Landing Systems, 5 Generators, 1 ATC Tower, 20 Radios, 1 Multi Mode Display, and a reduction on Test and Support Equipment and Depot Level Repairables (DLR's) (-903).		

7 0532

Activity Group: Electronic Systems Rework and Maintenance (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

PTI

Reflects a decrease in the number of calibrations
and repairs of 9 Time Frequency Equipment (-4).

10. FY 1991 President's Budget Request

\$13,612

-4

7 0533

Activity Group: Electronic Systems Rework and Maintenance (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.

22 Cag Electronic Equipments Restored.

General Communication	FY 1988	FY 1989	FY 1990	FY 1991
		(Units/\$000)		
Satellite Communication	680/2,495	527/2,054	469/1,877	491/2,022
Submarine Antenna	1/ 25	9/ 225	10/ 258	6/ 159
Outboard	28/ 676	187/ 892	205/1,008	205/1,040
NTDS	18/ 350	38/1,079	41/1,188	34/ 953
Electronic Warfare	8/1,800	8/1,744	8/1,767	6/1,360
	1/ 250	0/ 0	0/ 0	0/ 0
Total	736/5,596	769/5,994	733/6,098	742/5,534

Coast Guard Support

Number of Vessels Supported	177	200	200
Number Units Overhauled	1,130	1,613	3,072
Number of Backlogged Units	2,240	621	0
Total Cost (\$000)	1,851	2,663	5,209
			5,374

Activity Group: Electronic Systems Rework and Maintenance (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria (Continued)

	FY 1988	FY 1989	FY 1990	FY 1991
		(Units/\$000)		
<u>MATCS</u>				
Equipment/Systems Restorations Required	55	45	88	81
Equipment/Systems Restorations Financed	23/1,582	38/2,455	41/1,656	13/2,303
Description of Equip- ment/System Financed				
UHF Beacon (TRN-33)	1/ 70	4/ 292	0/ 0	0/ 0
Instrument Landing (TPN-30) Sys. (ILS)	5/ 170	10/ 357	10/ 360	8/ 296
Radio Relay Link	1/ 27	2/ 56	0/ 0	0/ 0
Radar Surv. Central (TSQ-107)	2/ 510	0/ 0	0/ 0	0/ 0
Mobile ATC Tower	0/ 0	4/ 172	0/ 0	0/ 0
Generators	6/ 243	12/ 504	5/ 215	0/ 0
Antennas (OE-258)	3/ 120	4/ 168	0/ 0	0/ 0
TACAN	0/ 0	1/ 210	0/ 0	0/ 0
ATC Tower (TSQ-120)	0/ 0	1/ 154	1/ 159	0/ 0
PAR Radar (TPN-22)	0/ 0	0/ 0	0/ 0	1/1,500
Radios	0/ 0	0/ 0	20/ 54	0/ 0
MWD (UYQ-34)	0/ 0	0/ 0	5/ 375	4/ 308
Mobilizers	5/ 50	0/ 0	0/ 0	0/ 0
Test & Support Equip.	100	160	160	0/ 0
DLR's	284	382	333	199
Total	23/1,574	38/2,455	41/1,656	13/2,303
<u>PTTI</u>				
Cesium Beam Frequency Stds	266/ 172	470/ 306	373/ 255	474/ 337
Other Clocks	19/ 27	23/ 33	28/ 40	36/ 54
Time Frequency Equipment	12/ 5	18/ 8	28/ 14	19/ 10
Total, PTTI Units Calib/Repaired	297/ 204	511/ 347	429/ 309	529/ 401

Activity Group: Electronic Systems Rework and Maintenance (Continued)
Claimant: Space and Naval Warfare Systems Command

IV. Personnel Summary. None

7 0536

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

Activity Group: Maintenance Support
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed.

Marine Air Traffic Control Squadron (MATCS)- The Marine Corps Air Traffic Control Squadron (MATCS) Maintenance Support Program provides the external engineering support necessary to maintain the combat readiness posture of transportable tactical air traffic control and landing systems supporting the four Marine Aircraft Wings to launch and recover aircraft under all weather conditions during tactical operations and, when directed, assist geographical areas during catastrophic situations. The program finances: installation; centralized standardization of systems, subsystems and equipments; planned product improvements, tests, inspections, measurement and diagnostic support; centralized software support; training (formal and OJT); Marine Squadron organizational level maintenance support, and Shipboard Marine Area Approach and Landing System (SMRAALS) Operational support including In-Service Engineering and Field Maintenance.

Precise Time and Time Interval (PTTI) Maintenance Support - This program provides engineering support and quality assurance for the Verdin Communication Timing Systems, used by all the attack (SSNs) and ballistic missile class (SSBNs) submarines. Without this precise time, maintained by Cesium Beam Frequency Standard (CBFS) O-1695A/U and O-1824A/U at both the transmitters (shore) and receivers (submarines), synchronized communications would not be possible. The same engineering support and quality assurance are provided for all frequency standards owned by the Department of the Navy, e.g., HP 5060s, HP 5061A, HP 5061B, AN/URQ-23's and other PTTI equipments including time transfer units, satellite timing receivers, and time distribution systems. The PTTI program also provides for time calibration via portable clock trips and operational and maintenance training for PTTI users. NAVELEX Portsmouth, as In-Service Engineering Agent for the PTTI program, tracks the locations of all CBFSs, publishes a monthly report of this effort, and acts as inventory manager for the HP 5060s and HP 5061s. Also, NESEC Portsmouth records and performs analysis of failure data of frequency standards to prevent systematic failure of these standards.

Activity Group: Maintenance Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

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 Estimate	Current Estimate	Budget Request	Budget Request
MATCS	4,103	2,633	2,633	2,607	7,262	6,959
PTTI Maintenance Support	592	631	631	633	689	644
Total	4,695	3,264	3,264	3,240	7,951	7,603

Activity Group: Maintenance Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$3,240
2. Pricing Adjustments		
A. Stock Fund		32
1) Non-Fuel	(-27)	
B. Industrial Fund Rates	-27	
C. Other Pricing Adjustments	(3)	
	(56)	
3. Functional Program Transfers		
A. Transfers Out		-116
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 (-100).	(-116)	
b) 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 (-16).	-100	
4. Program Increases		
A. Other Program Growth in FY 1990		4,795
MATCS - Program reflects fielding of new sophisticated equipment in the Fleet Marine Force (FMF) to increase operational capability. Specific increases are for:	(4,795)	

Activity Group: Maintenance Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

1,195

88 new installations at NESEC Vallejo:
 4 AN/TPN-22 radars, 8 AN/TSQ-120 Communications
 Control Group (CCG) towers, 51 AN/TSQ-120 radars,
 15 maintenance shelters, 6 AN/TPS-73 air search
 radars, and 4 AN/TSQ-131 Command and Control
 Systems (1,195).

104

Annual inspections by NESEC Vallejo technicians for
 4 Marine Air Traffic Control Squadrons (MATCS) with
 3 detachments each. The number of inspections have
 been controlled by type of inspection and by dollars
 available. A full inspection of a squadron consists
 of a complete inventory of equipment and documentation,
 review of maintenance actions and spares usage, review
 of operational procedures, assessment of training adequacy,
 and assessment of equipment readiness (104).

161

Marine Air Traffic Control and Landing System
 (MATCALS) testing at NAS Patuxent River which consists
 of an operational MATCALS as well as various
 instrumentation and data reduction equipment. Testing
 is conducted to confirm and correct reported equipment
 problems in a controlled environment. Benefit is
 improved safety of flight for Marine/Navy aircraft (161).

995

MATCS operational maintenance support for field
 depot level repairables (DLR), consumables and general
 purpose electronic test equipment replacements.
 Maintenance costs (module/card level replacement) in
 conjunction with the non-aviation DLR program are
 increasing due to the fielding of the new sophisticated
 MATCALS equipment. Funds will increase the maintenance
 effort and upgrade the communications capability necessary
 to the control of tactical aircraft in a combat environment
 which is essential to flight safety (995).

Activity Group: Maintenance Support (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

1,069

Increase in Software Support Activity (SSA) due to FY 1990 being a transition year of MATCALS software from the development contractor to total government support involving assembly of personnel and equipment at NESEA St. Ingoes to perform tasks such as maintenance of operational and support software, configuration management, documentation control, quality assurance, production and distribution of operational software, maintenance of external interfaces, and data reduction. SSA start-up requires approximately 10 workyears of programmer effort plus 5 workyears of administrative efforts to receive and catalogue all the MATCALS operational and support software. Additional efforts are required to check-out installation of developmental software and begin test compiling of software (1,069).

500

Increase in field maintenance engineering support, on-the-job-training, Preventive Maintenance System (PMS) and technical manual updates. The field maintenance agent provides technical assistance to Marine technicians and operators in equipment operation, maintenance and logistic support. On-the-job-training includes the preparation of material and on-site training of Marine technicians/operators by NESEC Vallejo technicians. PMS is set up to collect equipment data from the squadrons for direct support in planning, documenting, and updating preventive maintenance actions for MATCALS equipment. The technical manual update program provides for the preparation of technical manual change pages for MATCALS equipment (500).

649

Engineering and technical services to insure proper installation and initial operation of the MATCALS. The effort provides nonpersonal engineering support services in the areas of engineering analysis, system verification and validation, acquisition quality assurance, Integrated Logistic Support (ILS) planning, and

Activity Group: Maintenance Support (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

test and evaluation. Deliverables are test reports, verification reports, IIS plans, and analysis/comparisons of alternative approaches. These efforts enable the timely review and response to data deliverables from major procurement contracts, to adequately plan the logistic aspects of procurements, and plan for future acquisitions. Approximately 8 workyears are required. Technical services provided insure proper first installation and initial operation of various MATCALS equipment. Approximately 3 workyears are required per year (649).

70

In-Service Engineering Agent (ISEA) to provide direct support to the fleet for technical, engineering and logistic assistance in resolving equipment or support problems and Safety-of-flight certification for the Shipboard Marine Remote Area Approach and Landing Systems (SMRAALS). Also, SMRAALS certifications are required for safety-of-flight (70).

52

PTTI - Increase for additional parts, equipment and engineering support to monitor quality of PTTI depot output, interpret and analyze failure and repair data, and provide for necessary corrective action. Also provides operation and maintenance training to PTTI users while serving as POC for fleet users. Additional parts and engineering support are required due to approximately 240 Cesium Beam Frequency Standards being added to the Navy inventory since 1984 to meet increased requirements (52).

\$7,951

5. FY 1990 President's Budget Request

7 0542

Activity Group: Maintenance Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

6. Pricing Adjustments			
A. Stock Fund			208
1) Non-Fuel	(47)		
B. Industrial Fund Rates	47		
C. Other Pricing Adjustments	(1)		
	(160)		
7. Program Increases			425
A. Other Program Growth in FY 1991	(425)		
<u>MATCS</u> - Program reflects fielding of new sophisticated equipment in the Fleet Marine Force (FMF) to increase operational capability. Specific increases are for:			
MATCS maintenance support for field depot level repairables, consumables and general purpose electronic test equipment replacements (13).	13		
Increase in Software Support Activity (SSA) due to FY 1991 being a continuation of the FY 1990 transition of MATCALS software from the development contractor to total government support. SSA tasks include activities such as maintenance of operational and support software, configuration management, documentation control, quality assurance, production and distribution of operational software, maintenance of external interfaces, and data reduction. The SSA requires 5 additional workyears of (non-government) programmer effort. Additional efforts are required to check out installation of developmental software, continue test compiling of software, quality assurance, document control, and production and distribution of operational software. The SSA estimates are based on the generation of 15,000 new or changed lines of software code per year (350).	350		

Activity Group: Maintenance Support (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

In-Service Engineering Agent for SMRAALS to provide direct support to the fleet for technical, engineering, and logistic assistance in resolving equipment or support problems. SMRAALS certifications are required for safety-of-flight. FY 1991 efforts include the certification of one SMRAALS installation and the recertification of previously installed systems (62).

62

9. Program Decreases

A. Other Program Decreases in FY 1991

1) Inter-Appropriation
Decrease reflects the FY 1991 effect of the 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 (-100).

(-981)
-100

-981

MATCS - Program decrease reflects 55 less installations (-381).

-381

MATCS - Reduction in 4 workyears for MATCS (squadron funds) operational maintenance support for field depot level repairables consumables, and general purpose electronic test equipment (-290).

-290

7 0544

Activity Group: Maintenance Support (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

MATCS - Reduction of 1 workyear in engineering
and technical services (-150).

-150

PTTI - Decrease due to curtailment of failure
rate data collection and of portable clock
trips, and slowed procurement of material for
depot repair (-60).

-60

10. FY 1991 President's Budget Request

\$7,603

Activity Group: Maintenance Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.	FY 1988	FY 1989	FY 1990	FY 1991
<u>MATCS Maintenance Support</u>		Units/\$000		
Installations	13/ 431	0/ 0	88/1,195	33/ 814
Inspections	2/ 52	2/ 68	4/ 174	4/ 179
Tests	1/ 444	1/ 312	1/ 480	1/ 494
MATCS Maintenance Support (Squadron)	4/1,680	4/1,038	4/2,017	4/2,103
		WY/\$000		
Software Support Activity	0/ 0	0/ 0	15/1,050	20/1,445
MATCALS Support Facility	8/ 630	8/ 650	8/ 684	4/ 398
FMA Engineering Support/OJT/PMS/Tech Manual Update	6/ 269	6/ 284	16/ 795	18/ 822
Engineering/Technical Support	9/ 539	3/ 200	9/ 741	7/ 512
SMRAALS Operational Support	1/ 58	1/ 55	2/ 126	3/ 192
TOTAL MATCS	4,103	2,607	7,262	6,959
<u>PTTI</u>				
Technical Data Collection (WY/\$000)	4.3/143	1.5/ 50	1.6/ 70	0/ 0
Engineering Support (Units/\$000)	453/389	516/538	689/574	665/644
Portable Clock & Emergency Clock Visits (Units/\$000)	3/ 60	4/ 45	4/ 45	0/ 0
TOTAL PTTI	592	633	689	644
IV Personnel Summary. None.				

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

Activity Group: Other Aviation Systems Maintenance
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed.

Meteorological Support - Provides funding for the installation, maintenance and life cycle support of all meteorological equipment used in the Navy and Marine Corps. The support includes depot maintenance for rework of meteorological equipment and maintenance support for Shipboard Readout Equipment (SROE) AN/SMQ-10, Marine MARK IV terminals, AN/SMQ-11 Satellite Receiver/Recorder, Next Generation Radar (NEXRAD) Remote, the Automatic Observing System (AOS), and the Tactical Environmental Support System (TESS). The SROE units and MARK IVs are readout terminals capable of receiving and processing high quality satellite meteorological data from joint-service Defense Meteorological Satellite Program, (DMSP) satellites for use in tactical air operations. The AN/SMQ-11 Satellite Receiver/Recorder receives both Department of Defense and National high resolution satellite data. The data from this equipment greatly increases aircraft and ship safety and is a force multiplier for weapon systems. The Next Generation Radar (NEXRAD) Remote includes all the hardware and software required for the request, display, local storage, local annotation and distribution of weather/storm data from National Weather Service, Federal Aviation Administration and Air Force weather radars. The Automatic Observing System senses, collects, displays and disseminates real time meteorological information automatically at Navy and Marine Corps air stations and remote sites such as weapon ranges and port facilities. The Tactical Environmental Support System (TESS) is a modular, computer-based system installed aboard Navy ships where it functions as the operational resident meteorological/oceanographic master data base. Data sources will include local observations from existing ship sensors and the Shipboard Meteorological and Oceanographic Observing System (SMOOS) ship sensor suite, meteorological and oceanographic satellite imagery, and data from shore stations.

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
Meteorological Support	3,358	3,414	3,414	3,414	5,452	5,452	5,654	5,654
TOTAL	3,358	3,414	3,414	3,414	5,452	5,452	5,654	5,654

Activity Group: Other Aviation Systems Maintenance (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$3,414
2. Pricing Adjustments		125
A. Industrial Fund Rates	(39)	
B. Other Pricing Adjustments	(86)	
3. Functional Program Transfers		-11
A. Transfers Out		
1) 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 workforce (-11).	-11	
4. Program Increases		2,054
A. Other Program Growth in FY 1990	(2,054)	
Increase in depot maintenance for two major overhauls of AN/SMQ-11 equipment (380) and 20 minor overhauls of AN/SMQ-11 equipment (77).	457	
Installation of 16 new Next Generation Radar (NEXRAD) Remotes being installed at Navy and Marine Corps Air stations which gather and distribute weather/storm data (1,120).	1,120	
Preparation of Base Electronic Engineering Plans (BESEPs) for 9 Automatic Observing Systems (90).	90	
Replacement of obsolete satellite receiving systems with 2 AN/SMQ-11 Satellite Receiver/Recorders (150).	150	
Increase in engineering and logistics support consisting of ILS management, configuration management, data planning, analyses, plans, technical manual changes, planned maintenance systems changes and supply analyses for all existing, new and obsolete systems (237).	237	

Activity Group: Other Aviation Systems Maintenance (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

5. Program Decreases			
A. Other Program Decreases in FY 1990		(-130)	
Reduction reflects one less weathervision			
equipment installation (-130).		-130	
6. FY 1990 President's Budget Request			\$5,452
7. Pricing Adjustments			165
A. Industrial Fund Rates	(47)		
B. Other Pricing Adjustments	(118)		
8. Program Increases			1,131
A. Other Program Growth in FY 1991		(1,131)	
Increase due to the installation of 9 Automatic			
Observing Systems (AOS) which sense, collect,			
display and disseminate real-time meteorological			
information (665).		665	
Installation of 8 AN/SMQ-11 Satellite Receiver/			
Recorders which receive high resolution satellite			
data to improve aircraft and ship safety and is			
a force multiplier for weapon systems (231).		231	
Installation of 9 Tactical Environmental Support			
Systems (TESS) which will provide the Navy with			
capability to assess the impact of atmospheric and			
oceanographic environment on the performance of			
weapons and sensor systems (225).		225	
Preparation of Base Electronic Engineering Plans			
(BESEP) for 1 Automatic Observing System (10).		10	
9. Program Decreases			-1,094
A. Other Program Decreases in FY 1991		(-1,094)	

Activity Group: Other Aviation Systems Maintenance (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

Reduction reflects 4 less weather vision equipment installations (-533), and three less Next Generation Radar (NEXRAD) Remote installations (-301).

-834

Reduced engineering and logistics support due to newer equipment installations and fewer obsolete systems being maintained (-260).

-260

10. FY 1991 President's Budget Request

\$5,654

Activity Group: Other Aviation Systems Maintenance (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.

A. Meteorological Support - Provides funding for Depot Maintenance, Installation, and Engineering/Logistics support for all meteorological equipment used by the Navy and Marine Corps.

	FY 1988	FY 1989	FY 1990	FY 1991
Systems Overhauled (N/SMQ-10, MARK IV, etc.) Cost	9 1,618	7 1,310	7 1,338	7 1,340
Subsystems Overhauled				
Units	40	40	40	40
Cost	138	142	151	155
AN/SMQ-11 Major Overhaul				
Units	0	0	2	2
Cost	0	0	380	383
AN/SMQ-11 Minor Overhaul				
Units	0	0	20	20
Cost	0	0	77	75
Other Systems Installed				
Units	4	6	5	1
Cost	517	783	642	131
NEXRAD Installation				
Units	0	0	16	13
Cost	0	0	1,120	858
AOS Installation Planning				
Units	0	0	9	10
Cost	0	0	90	103
AOS Installation				
Units	0	0	0	9
Cost	0	0	0	665
AN/SMQ-11 Installation				
Units	0	0	2	10
Cost	0	0	150	397
TESS Installation				
Units	0	0	0	9
Cost	0	0	0	225
Eng/Logistics Support				
Cost	1,085	1,179	1,504	1,322
Total	3,358	3,414	5,452	5,654

7 0551

Activity Group: Other Aviation Systems Maintenance (Continued)
Claimant: Space and Naval Warfare Systems Command

IV. Personnel Summary. None

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

Activity Group: Procurement Operations
Budget Activity: 7- Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed.

Project Management Offices - This program provides administrative salaries, support costs, and travel for the administrative and technical staffs who support "cradle-to-grave" responsibility for acquisition programs. Functions include centralized procurement, engineering and technical services, logistics support and other procurement related activities. They provide systems integration to ensure fully coordinated and timely efforts for the following: Warfare Systems Architecture and Engineering, Space and Sensor Systems Program, Information Transfer Systems Program, Information Management Systems Program, Weapons and Warfare Support Systems Program, and Anti-Submarine Warfare Systems Program.

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		
Project Management Offices	44,614	35,783	35,745	53,757	59,336
Total	44,614	35,783	35,745	53,757	59,336

Activity Group: Procurement Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$44,159
2. Pricing Adjustments		1,119
A. Annualization of FY 1989 Direct Pay Raises	(299)	
1) Classified	299	
B. FY 1990 Direct Pay Raises	(746)	
1) Classified	746	
C. Stock Fund	(5)	
1) Non-Fuel	5	
D. Industrial Fund Rates	(2)	
E. Other Pricing Adjustments	(67)	
3. Functional Program Transfers		7,200
A. Transfers in		
1) Inter-Appropriation	(7,200)	
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 140 and 166 respectively, of which 113 workyears represent annualization of FY 1989 increases (7,200).		
4. Program Increases		1,646
A. One-Time FY 1990 Costs	(249)	
One-time relocation of 1,097 personnel for the SPANAR headquarters spaces (249).	249	
B. Other Program Growth in FY 1990	(1,397)	
Increase in new lease costs for 79,000 square feet of office space for SPANAR headquarters facilities (1,185).	1,185	
		7 0554

Activity Group: Procurement Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Increase in equipment maintenance for ADP equipment being purchased for upgrade of Uninterrupted Power Source and WANG VS 100 systems, maintenance of bar coding equipment in the mailroom, and maintenance of STU III secure voice telephones which are Class III personal property (212).	212	
5. Program Decreases		-367
A. Other Program Decreases in FY 1990		
Transfer of classified functions to the Office of the Chief of Naval Research (-367).	-367	
6. FY 1990 President's Budget Request		\$53,757
7. Pricing Adjustments		1,408
A. Annualization of FY 1990 Direct Pay Raises	(251)	
1) Classified	251	
B. FY 1991 Direct Pay Raises	(1,023)	
1) Classified	1,023	
C. Stock Fund	(-10)	
1) Non-Fuel	-10	
D. Industrial Fund Rates	(3)	
E. Other Pricing Adjustments	(141)	
8. Program Increases		4,390
A. Other Program Growth in FY 1991	(4,390)	
Increase reflects the FY 1991 effect of the 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.		

Activity Group: Procurement Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Civilian personnel workyears and end strength are increased 203 and 241 respectively, of which 203 workyears represent annualization of increases in FY 1990 (4,000).	4,000	
Increase in lease rates due to a GSA surcharge in support of Federal Building funds Administration (93).	93	
Increase in personnel benefits due to new hires participating in the Federal Employee Retirement System (FERS) vice Civil Service Retirement System (CSRS) (71).	71	
Increase in other purchases to satisfy the requirements for occupying new lease space such as miscellaneous alterations to accommodate specialized equipment, classified material vault, etc. (64)	64	
One additional paid day (162).	162	
9. Program Decreases		-219
A. One-Time FY 1990 Costs		(-219)
Decrease for the one-time relocation expense (-219).		-219
10. FY 1991 President's Budget Request		\$59,336

Activity Group: Procurement Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.	FY 1988	FY 1989	FY 1990	FY 1991
WARFARE SYSTEMS ARCHITECTURE AND ENGINEERING	5,661	5,702	6,940	7,659
SPACE AND SENSOR SYSTEMS	6,704	6,719	8,182	9,034
INFORMATION TRANSFER SYSTEMS	14,370	14,187	17,272	19,067
INFORMATION MANAGEMENT SYSTEMS	8,282	7,801	9,492	10,474
WEAPONS AND WARFARE SUPPORT SYSTEMS	2,625	2,679	3,263	3,601
ASW SUPPORT SYSTEMS	<u>6,972</u>	<u>7,071</u>	<u>8,608</u>	<u>9,501</u>
	44,614	44,159	53,757	59,336

WARFARE SYSTEMS ARCHITECTURE AND ENGINEERING

Force level warfare system integration engineering to convert requirements and architecture into top-level systems specifications, including definition and control of interface requirements documents (IRD) and interface design specifications (IDS) at theater, force and platform levels. Additional responsibilities include:

Force level warfare system integration implementation in accordance with approved plans, architecture and specifications.

Allied and interservice warfare system integration.

Responsibility for material support for space systems and force warfare systems beyond those uniquely dedicated to individual platform combat systems.

Control of program resources to effect the above warfare architectural and engineering specifications.

FUNDING	FY 1988	FY 1989	FY 1990	FY 1991
PROFILE:	5,661	5,702	6,940	7,659

SPACE AND SENSOR SYSTEMS PROGRAM OFFICE

Exercise full responsibility for technical, management and financial control over ship, aircraft and space electronic detection systems (including over-the-horizon radar) required for force warfighting capabilities of naval and non-naval forces at the theater, force and inter-platform level.

FUNDING	FY 1988	FY 1989	FY 1990	FY 1991
PROFILE:	6,704	6,719	8,182	9,034

7 0557

Activity Group: Procurement Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

INFORMATION TRANSFER SYSTEMS PROGRAM OFFICE

Exercises full responsibility for technical, management and financial control over ship, aircraft and space telecommunications systems (including transmission, control, security, support, display and related data links) required for effective communications of force warfighting capabilities between naval and non-naval forces at the theater, force and inter-platform level.

FUNDING	FY 1988	FY 1989	FY 1990	FY 1991
PROFILE:	14,370	14,187	17,272	19,067

INFORMATION MANAGEMENT SYSTEMS PROGRAM OFFICE

Exercises full responsibility for technical, management and financial control over ship, aircraft and space electronic data collection, processing and display systems (including information fusion and management intelligence) required for force warfighting capabilities for effective command and control of naval and non-naval forces at the theater, force and inter-platform level.

FUNDING	FY 1988	FY 1989	FY 1990	FY 1991
PROFILE:	8,282	7,801	9,492	10,474

WEAPONS AND WARFARE SUPPORT SYSTEMS PROGRAM OFFICE

Exercises full responsibility for technical, management and financial control over ship, aircraft and space electronic weapons and warfare systems (including undersea and ocean surveillance) required by force warfighting capabilities of naval and non-naval forces at the theater, force and inter-platform level.

FUNDING	FY 1988	FY 1989	FY 1990	FY 1991
PROFILE:	2,625	2,679	3,263	3,601

ANTI-SUBMARINE WARFARE PROGRAM OFFICE

Exercises full responsibility for the technical, management and financial control necessary to convert surveillance operational requirements into worldwide integrated Undersea Surveillance Systems required for force warfighting capabilities of naval and non-naval forces at the theater, force and interplatform level.

FUNDING	FY 1988	FY 1989	FY 1990	FY 1991
PROFILE	6,972	7,071	8,608	9,501

Activity Group: Procurement Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

IV. Personnel Summary.

End Strength (E/S)	FY 1988	FY 1989	FY 1990	FY 1991
A. <u>Military</u>				
<u>Officer</u>	313	311	310	310
Enlisted	233	219	215	215
	80	92	95	95
B. <u>Civilian</u>				
USDA	724	858	954	1,029
	724	858	954	1,029

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

Activity Group: Command and Administration
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed.

The Command and Administration program finances the administrative salaries, support costs, and travel for personnel necessary to manage headquarters functions as defined by the Secretary of Defense; directs Command-wide policy and planning, and controls and allocates financial resources and manpower to provide efficient support of the mission in conformance with legal and regulatory limitations and evaluations Command-wide.

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	Budget Request	Budget Request
Command and Administration	12,539	6,856	6,738	11,305	10,254	10,254	12,123	12,123
Total	12,539	6,856	6,738	11,305	10,254	10,254	12,123	12,123

Activity Group: Command and Administration (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$11,305
2. Pricing Adjustments		303
A. Annualization of FY 1989 Direct Pay Raises	(41)	
1) Classified	41	
B. FY 1990 Direct Pay Raises	(152)	
1) Classified	152	
C. Stock Fund	(2)	
1) Non-Fuel	2	
D. Industrial Fund Rates	(2)	
E. Other Pricing Adjustments	(106)	
3. Program Increases		78
A. One-Time FY 1990 Costs	(38)	
One-time relocation cost of 191 personnel for the SPAWAR headquarters (38).	38	
B. Other Program Growth in FY 1990	(40)	
Increase reflects anticipated increased participation in the Federal Employees Retirement System (FERS) (40).	40	
4. Program Decreases		-1,432
A. Other Program Decreases in FY 1990	(-1,432)	
Decrease in fact-of-life costs incurred annually that have been previously addressed during program execution. These costs cover such items as bar coding of classified material, Financial Management Information Systems operations, and Equal Employment Opportunity (EEO) studies which have required increases during execution. (-1,412).	-1,412	
Decrease reflects reduction of one less workyear (-20).	-20	
5. FY 1990 President's Budget Request		\$10,254

Activity Group: Command and Administration (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).		
6. Pricing Adjustments		279
A. Annualization of FY 1990 Direct Pay Raises	(48)	
1) Classified	48	
B. FY 1991 Direct Pay Raises	(174)	
1) Classified	174	
C. Stock Fund	(2)	
1) Non-Fuel	2	
D. Industrial Fund Rates	(2)	
E. Other Pricing Adjustments	(53)	
7. Program Increases		1,694
A. Other Program Growth in FY 1991	(1,694)	
Increased lease costs for office space associated with relocation of personnel for SPANAR headquarters.	398	
Increase in fact-of-life costs incurred annually that have been previously addressed during program execution. These costs cover such items as bar coding of classified material, Financial Management Information System operations, and Equal Employment Opportunity (EEO) studies which have had to be increased during execution in the past (1,249).	1,249	
Change in paid days (32).	32	
Increase reflects anticipated increased participation in the Federal Employee Retirement System (15).	15	
8. Program Decreases		-104
A. One-time FY 1990 Costs	(-38)	
Decrease of one-time FY 1990 relocation cost (-38).		
B. Other Program Decreases in FY 1991	(-66)	
Reduction in rental of extra warehouse/storage space and consolidation of copiers for new lease space (-66).		
9. FY 1991 President's Budget Request		\$12,123

Activity Group: Command and Administration (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.

The Command and Administration program provides the staff necessary to manage headquarters functions as defined by the Secretary of Defense; directs Command-wide policy and planning, and controls and allocates financial resources and manpower to provide efficient support of the mission in conformance with legal and regulatory limitations and evaluations, Command-wide, and in support of field activity management units.

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>				
Officer	$\frac{15}{12}$	$\frac{15}{12}$	$\frac{15}{12}$	$\frac{15}{12}$
Enlisted	3	3	3	3
B. <u>Civilian</u>	<u>179</u>	<u>175</u>	<u>175</u>	<u>175</u>
USDH	179	175	175	175

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

Activity Group: Field Operations
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

1. Description of Operations Financed.

Operations Support - Field - This program finances the salaries, administrative expenses and travel of personnel who are engaged in the design, development, acquisition, and logistics support of surveillance, space, intelligence, security, command and control, communications, electronic warfare, air traffic control, and navigational systems for the field activities. Additionally, the Operational Support - Field Program manages technical programs to ensure the security and integrity of Navy ADP systems, acts as the lead agency for the laser safety program and is the primary technical authority for electronic standards, standardization, techniques, practices and compatibility.

Field Operations - This program finances the day-to-day operations of the field activities management personnel (supervisory, financial, contractual and administrative). Included are costs for office supplies and equipment, mission travel, administrative training, data processing, printing and reproduction, and transportation of things. It also finances costs associated with ADP (maintenance and leasing), general technical report production, and audiovisuals. The Field Operations program provides maintenance and technical support of equipments for ashore and afloat forces.

Navy Management Systems Support Office (NAVMASSO) - The mission of NAVMASSO is to design, develop, implement and provide life-cycle support for standard fleet non-tactical automated information systems afloat and ashore. NAVMASSO, upon implementing a system, provides training to fleet user personnel, assists fleet users in the operation of these information systems, and performs other tasks in the software analysis and functional areas as directed by higher authority. NAVMASSO functions as the single Central Design Agency (CDA) for fleet non-tactical automated information systems.

Activity Group: Field Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

11. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	Amended Pres. Budget	FY 1989 Appro- priation	Current Estimate	FY 1990 Budget Request	FY 1991 Budget Request
Operations Support - Field	13,312	16,705	16,411	13,927	15,548	15,123
Field Operations	29,516	32,379	30,485	29,299	31,375	32,820
NAVMASSO	34,682	35,871	33,463	37,103	42,003	38,482
Total	77,510	84,955	80,359	80,329	88,926	86,425

Activity Group: Field Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$80,329
2. Pricing Adjustments		
A. Annualization of FY 1989 Direct Pay Raises		
1) Classified	(210)	
2) Wage Board	207	1,976
B. FY 1990 Direct Pay Raises	3	
1) Classified	(824)	
2) Wage Board	812	
C. Stock Fund	12	
1) Non-fuel	(3)	
D. Industrial Fund Rates	3	
E. Other Pricing Growth	(72)	
	(867)	
3. Functional Program Transfers		
A. Transfers out		-248
1) Inter-Appropriation	(-248)	
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 (-100).		-100
b) 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 (-148).		-148
4. Program Increases		
A. One-Time FY 1990 Costs		7,721
Operations Support <u>Field</u>	(68)	
Increase due to one-time relocation of 339 personnel for the SPAWAR headquarters facilities (68).	68	

7 0566

Activity Group: Field Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

B. Other Program Growth in FY 1990
 1) Operational Support Field (7,653)
 Increase in personnel benefits due to growth 1,464
 in Federal Employees Retirement System (FERS)

(284), increase for equipment maintenance and materials purchases (278) and increase in administrative support costs (749).

1,869

Field Operations - increase in personnel benefits due to growth in Federal Employees Retirement System (FERS) participation rate (285). Increase in transportation, stock fund and industrial fund purchases associated with increase in projected workload (349); increase for additional warehousing and material handling (513), and non-ADP equipment maintenance (227). Increase in non-ADP supplies and materials to replenish drawn down stores from curtailment of outlays (230). Additional funds also provided to support Intermediate Range Nuclear Forces (INF) security requirements at NESEC San Diego (156) and increase of 3 workyears in support of the Commercial Activities Program (109).

4,320

NAVMASSO - Increase in NALCOMIS to support increase in number of platforms/sites served and an increase in scheduled assist visits (1,218). Shipboard Uniform Automated Data Processing System (SUADPS) resources are increased to support completion of Family Head Management (440), priority tasking (713) and continued support for East and West coast scheduled assist visits (350). Completion of Fleet Maintenance Management System (FMMS) IOC (350), programming and implementation of Supply and Financial Modules (SFM), change proposals in SNAP II (350) and development and life cycle support of real time underway replenishment module for combat stores ships (805), and increase for anticipated participation in FERS (94).

Activity Group: Field Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

5. Program Decreases		-852
A. Other Program Decreases in FY 1990	(-852)	
Operations Support Field		
Standard Level User Charge (SLUC) transfer for the Joint	-751	
Cruise Missile Program (-751).		
Field Operations		
Reduction of 4 work years. This includes costs of	-101	
civilian compensation and benefit (-101).		
6. FY 1990 President's Budget Request		\$88,926
7. Pricing Adjustments		2,383
A. Annualization of FY 1990 Direct Pay Raises	(295)	
1) Classified	293	
2) Wage Board	2	
B. FY 1991 Civilian Pay Raise	(1,066)	
1) Classified	1,055	
2) Wage Board	11	
C. Stock Fund	(11)	
1) Non-Fuel	11	
D. Industrial Fund Rates	(70)	
E. Other Pricing Adjustments	(941)	
8. Program Increases		1,306
A. Other Program Growth in FY 1991	(1,306)	
Operations Support Field - Increase in personnel	164	
benefits due to growth in FERS participation		
(62), and increase for 1 additional paid day in		
FY 1991 (40); Increase in leased space costs (62).		

Activity Group: Field Operations (Continued)
 Component: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

946

Field Operations - Increase in personnel benefits due to growth in FERS participation (114), and increase for 1 additional paid day (158). Increase in travel (13), additional supplies and printing costs (33), increase for additional ADP equipment and maintenance (49), and additional costs for guard services, warehousing, and material handling at SPAWAR Engineering Centers (579).

196

NAVMASSO - Increase in personnel benefits due to growth in FERS participation (60) and increase for 1 additional paid day (45). Increase for additional ADP supplies and equipment and lease rates for Standard Level User Charges (91).

9. Program Decreases

A. One-Time FY 1990 Costs

Operations Support Field

Decrease due to one-time relocation

of 339 personnel for the SPAWAR

headquarters facilities in FY 1990 (-68).

-6,090

(-68)

-68

B. Other Program Decreases

Decrease reflects the FY 1991 effect of the 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 (-100).

(-6,122)

-100

Activity Group: Field Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Operations Support Field - Decrease in miscellaneous support costs through realignment and reprioritization of mission efforts (-913).

-913

Field Operations - Decrease in industrial fund purchases (-150) and contractual equipment maintenance (-105), decrease in transportation costs and other purchases (-15) due to fiscal constraints.

-270

NAVMASSO - Reduction in contractual support and implementations for the Fleet Maintenance Management System (FMMS) for SNAP I integration efforts (-1,918) and reduced systems design and engineering support (-2,921) due to fiscal constraints.

-4,839

10. FY 1991 President's Budget Request

\$86,425

Activity Group: Field Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.

The Operations Support Field program provides the staff necessary to manage headquarters functions as defined by the Secretary of Defense; directs Command-wide policy and planning, and controls and allocates financial resources and manpower to provide efficient support of the mission in conformance with legal and regulatory limitations and evaluations, Command-wide, and in support of field activity management units.

NAVMASSO

AIS for Development/Life Cycle Maintenance Support:

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
SNAP I	9	9	9	9
SNAP II	6	6	6	6
NALCOMIS	2	3	3	3
MICROS*	3	3	3	3
AV3M/NAVFLIRS**	1	1	2	2
TOTAL	21	22	23	23

Number of Platforms/Sites Served:

SNAP I	99	99	99	99
SNAP II	299	371	443	515
NALCOMIS	36	44	52	60
MICROS*	538	960	1,268	1,000
AV3M/NAVFLIRS**	70	70	70	70
TOTAL	1,042	1,544	1,932	1,744

Number of Scheduled Assist Visits:

SNAP I	198	198	198	198
SNAP II	299	371	443	371
NALCOMIS	45	44	60	44
MICROS*	0	0	0	0
AV3M/NAVFLIRS**	26	24	24	24
TOTAL	568	637	725	637

* MICRO Assist visits are unscheduled and conducted as required during SNAP I and II scheduled assist visits.
 ** Prior to FY 1988 Aviation Maintenance and Material Management System/Naval Flight Information Recording Sub-system (AV3M/NAVFLIRS) was included in NALCOMIS and MICROS included in SNAP I and II.

Activity Group: Field Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria (Continued).

Field Operations

The Space and Naval Warfare Systems Command (SPAWAR) Field Operations is comprised of 4 Naval Electronic Systems Engineering Centers at Charleston, S.C., San Diego, CA., Portsmouth, VA, and Vallejo, CA., and 1 Systems Engineering Activity located at St. Inigoes, MD. These strategically located shore activities provide planning, implementation, coordination and management control of shore and shipboard electronic equipment under SPAWAR cognizance in support of direct fleet activities and combat forces. Resources provide for direct salaries and administrative support for civilian personnel and administrative support costs for military and civilian personnel who provide design and engineering, inspection and testing of electronic installations, major equipment repair and engineering/technical assistance for electronic systems and equipments.

IV. Personnel Summary.

END STRENGTH (E/S)	FY 1988	FY 1989	FY 1990	FY 1991
A. Military	328	366	361	361
Officer	62	54	51	51
Enlisted	266	312	310	310
B. Civilian	1,096	1,186	1,191	1,190
USDH	1,096	1,186	1,191	1,190

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

Activity Group: Logistics Support Activities
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed.

Shipboard Non-tactical ADP Program (SNAP) - SNAP I replaces obsolete non-tactical Automated Data Processing Equipment (ADPE) on 70 larger ships, 17 Marine Air Groups (MAGS) and 23 shore sites, and provides phased upgrades to meet growth of Fleet automation requirements. SNAP II provides standardized non-tactical ADPE in 482 smaller ships/submarines and at 58 shore sites. The program increases fleet readiness by reducing the administrative and clerical workload of fleet personnel and improving inventory management through automated support for maintenance, supply, and administrative functions. Continuity of operations (COOP) is provided during ship overhauls through self-contained COOP vans with fully configured SNAP systems inside. There are currently 6 COOP vans deployed with plans for 42 more. This funding line provides support for installation, supply, maintenance and engineering support for the SNAP Program.

Field Activity Support - SNAP Program field activities perform or monitor performance of industrial support for initial and upgrade installations of SNAP equipment and provide technical assistance to fleet and deployed sites. Field activities also provide acquisition and in-service engineering support for equipment technology improvements, performance of equipment testing, and provide assistance for procurement of proposed equipments upgrades.

Field Services Support - Provides direct technical services for support of SNAP fleet units and deployed sites. Including support for program acquisition, in-service engineering efforts, performance of equipment life extension efforts, equipment technological upgrades, engineering studies, and management and industry improvement analyses.

Logistic/Engineering Support - Provides support for continuing development of provisioning, technical manual reviews and revision production/distribution to Fleet units, engineering drawings review and processing, preventive and corrective maintenance procedures development, engineering analyses of equipment and safety failures, and other logistics support elements.

Standardization - Provides for the standardization of equipment, parts, material and related software, procedures and techniques to improve interoperability and shared logistics support with friendly forces. These efforts are designed to increase fleet readiness and ensure adequate support of weapons systems through improved technical documentation, skilled maintenance and operations. This program is being terminated in FY 1989.

7 05/3

573

Activity Group: Logistics Support Activities (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed (Continued)

SSN-Integrated Communications System (SSN-ICS) - Provides the attack submarine fleet with improved communication centers capable of responding to various mission requirements. The program supports the SSN 688 Class radio room by enhancing its capabilities through engineering changes and the addition of new improvements. This program provides repair and maintenance service for system hardware and software, engineering and technical services, configuration management and control, and technical support and management assistance for new fleet equipment. A high priority portion of the program is the Data Link Communications Systems (DLCS), a major subsystem of the Over-the-Horizon-Targeting (OTR-T)/TOMAHAWK capability, which will introduce nine complex subsystems of electronic equipment to the SSN Class Submarine. In addition, this program funds the Submarine Antenna function to ensure that current technical and operational documentation is available to support the submarine mission, that technically qualified personnel are stationed throughout the world to assist in inspection, investigation, maintenance, and fleet liaison for submarine antenna problems, that logistics and engineering services support are available, that support to the operation of an antenna range is provided, and that it provides in-service engineering support to the Fleet. Funds are required to support approximately 4500 equipment items in fleet SSN Radio Rooms and antenna systems.

Safety - Provides funds for the Navy Laser Hazards Prevention Program to: (1) develop standards for laser safety design and laser radiation eye protection, (2) maintain a test and evaluation laboratory for determining hazardous characteristics of specific military/industrial lasers and for evaluating laser protective devices, (3) provide safety technical assist to laser developers, (4) provide Navy-wide laser safety training, (5) support a Navy Laser Safety Review Board to approve all military and certain industrial lasers, (6) develop and maintain all Navy laser safety design, training, and operational documents, and (7) provide operational safety assistance to the Fleet. These funds are used to maintain an electronics system safety evaluation laboratory capability and develop electronics safety design standards and operating precautions.

Navy Occupational Safety and Health (NAVOSH) - Provides funds targeted at eliminating workplace hazards and training employees in safe work practices, thereby reducing work time injuries and equipment damage, increasing productivity and enhancing fleet readiness. This is accomplished by providing safety and occupational health training of safety personnel, supervisors and employees; safety inspection; and NAVOSH management evaluation support.

Activity Group: Logistics Support Activities (Continued)
 Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed (Continued)

Integrated Logistic Support (ILS) Systems - This program supports the introduction of new fleet tactical communications equipment by providing proper planning for all elements of integrated logistic support. Included are planning for equipment implementation and installation, depot support, supply support, configuration management, software maintenance, training, documentation, other elements of ILS management, and project acquisition management support. This program also provides for the establishment of In-Service Engineering Agents (ISEA) for the introduction of new equipment and the monitoring of existing equipment to identify and correct problems as they arise.

INSURV (Board of Inspection and Survey) - SPAWARSYSCOM provides support to the Board of Inspection and Survey in accomplishing its mission to conduct acceptance trials of ships; service craft and aircraft; to inspect new ships and service craft for suitability; make recommendations to the Navy regarding acceptance; conduct surveys recommending disposition of ships and service craft which are considered beyond economical repair and modernization; periodically ascertain and report on the material condition and performance capabilities of ships, and make such other inspection and trials as may be directed by the Chief of Naval Operations.

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		
SNAP	6,701	5,526	4,729	4,459	4,010	2,583
Standardization	1,125	849	849	0	0	0
Integrated Comm System	2,984	3,981	3,981	3,824	2,143	2,132
ILS	1,720	2,756	2,756	2,567	1,610	2,950
INSURV	496	405	405	406	446	460
Safety	416	436	421	409	371	400
NAVOSH	232	247	186	188	264	274
Total	13,674	14,200	13,327	11,853	8,844	8,799

Activity Group: Logistics Support Activities (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

1. FY 1989 Current Estimate		\$11,853
2. Pricing Adjustments		
A. Industrial Fund Rates	(50)	389
B. Other Pricing Adjustments	(339)	
3. Functional Program Transfers		
A. Transfers Out	(-19)	-19
1) 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 workforce (-19).	-19	
4. Program Increases		1,410
A. Other Program Growth in 1990	(1,410)	
SNAP - Increase provides 26 additional man-years of contract support maintenance calls for installed SNAP equipment; more engineering drawings and other documents processed, and support for equipment installations (1,311).	1,311	
INSURV - Increase will support eight additional inspections and surveys of cognizant SPAWAR equipment to insure readiness of equipment (27).	27	
NAVOSH - Increase for 1 additional oversight inspection (21) and safety evaluation (9). Increase also reflects development of 1 additional safety course (29) and expansion of safety data base development (13).	72	

Activity Group: Logistics Support Activities (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

5. Program Decreases			
A. Other Program Decreases in FY 1990			
<u>SNAP</u> - Decrease reflects 4 less man years of field activity installation and planning support for Fleet SNAP implementations (-456).	(-4,789)	-456	-4,789
<u>SNAP</u> - Decrease reflects reduction of 7 responses to Fleet SNAP Casualty reports, which is equivalent to 6 man years of technicians for one theater of operation (-400).	-400		
<u>SNAP</u> - Reduction reflects decrease in management and systems engineering services for preventive and corrective maintenance procedures, safety reviews, equipment failure analyses, and Fleet feedback reports (-834).	-834		
<u>SSN-103</u> - Reduction reflects decrease in 3 work years in technical support and management assistance; elimination of EMI HF Filter (3.3 workyears) and antenna technical inspection program (1.5 workyears); decrease in In Service Engineering Agent (1.4 workyears); decrease in 4 workyears of antenna technical representatives; decrease in Antenna Mod Equip Support (1 workyear); and elimination of EMI installation support (1.4 workyears) (-2,002).	-2,002		
<u>ILS</u> - Decrease reflects reduced ISEA and ILS project acquisition management/technical support (-1,047).	-1,047		
<u>SAFETY</u> - Decrease reflects reduced scope of laser safety survey and workshops and protective device evaluations (-50).	-50		
6. FY 1990 President's Budget Request			\$8,844

Activity Group: Logistics Support Activities (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

7. Pricing Adjustments		272
A. Industrial Fund Rates	(31)	
B. Other Pricing Adjustments	(241)	
8. Program Increases		1,436
A. Other Program Growth in FY 1991	(1,436)	
ILS - Increase provides In-Service engineering acquisition management and Technical support for new AN/USQ (which replaces the AN/UCC-1) and Single Channel Ground Air Radio (SINGCARS) (which will be used for special operation forces) equipments (1,293).	1,293	
SAFETY - Increase provides publications on laser safety design, standards, and operating precautions (15).	15	
INSURV - Increase provides partial support for one INSURV (1).	1	
SNAP - Increase provides 5 more responses to Fleet SNAP CASREPs (127).	127	
9. Program Decreases		-1,753
A. Other Program Decreases in FY 1991	(-1,753)	
SNAP - Decrease reflects 9 less man years of field activity installation and planning support for Fleet SNAP implementations (-665).	-665	
SNAP - Decrease reflects 24 less man years of contract support maintenance calls for installed SNAP equipment; engineering drawings and other documents processed, and support for equipment installations (-908).	-908	

Activity Group: Logistics Support Activities (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

SSN-IGS - Decrease in .5 work year of in service
engineering agent and 1.0 work year of antenna
technical representative (-180).

-180

10. FY 1991 President's Budget Request

\$ 8,799

Activity Group: Logistics Support Activities (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.

	FY 1988	FY 1989	FY 1990	FY 1991
SNAP		(WY/\$000)		
Field Activity Support	33/1,969	33/2,071	29/1,785	20/1,281
Contract Field Services	16/1,000	13/ 800	7/ 425	14/ 555
Contract Support	88/3,432	17/ 688	43/1,800	19/ 747
Logistic/Engineering Support	18/ 300	56/ 900	0/ 0	0/ 0
Total	6,701	4,459	4,010	2,583
Installed Equipment Population (Cumulative) Program				
SNAP I	108	110	110	110
(Phase/upgrade)	78	92	101	110
SNAP II	299	371	443	515
(upgrades)	4	4	8	10

	(UNITS/\$000)		
STANDARDIZATION			
Engineering Support Actions	385/ 183	0	0
Value Engineering	2/ 120	0	0
Standards and Specifications	100/ 241	0	0
Packaging Standards	2/ 224	0	0
Micro Obsolescence	2/ 87	0	0
Navy Standard Parts List	0/ 0	0	0
Power & RF Cables	3/ 140	0	0
VHSIC Repair Cap	0/ 72	0	0
Repairability Guideline	0/ 0	0	0
Corrosion Analysis	1/ 58	0	0
Fiber Optics	0/ 0	0	0
GIDEP & Mettrication	0/ 0	0	0
Total	1,125	0	0

Activity Group: Logistics Support Activities (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria (Continued).

	FY 1988	FY 1989	FY 1990	FY 1991
SSN-ICS				
Configuration Management/Field Maintenance	1.0	1.0	1.0	1.0
Technical Support and Management Assistance	2.7	4.0	1.0	1.0
EWI HF Filter	3.3	3.3	0	0
Antenna Technical Inspection Program	0	1.5	0	0
In Service Engineering Agent	8.6	9.9	8.5	8.0
Radio Room Equipment				
Antenna Technical Representatives	9.0	12.0	8.0	7.0
Antenna Modification Equipment Support	3.0	3.0	2.0	2.0
EWI Installation Support	1.4	1.4	0	0
	29.0	36.1	20.5	19.0
Total (\$000)	2,984	3,824	2,143	2,132
Integrated Logistic Support (ILS)				
Equip/ISEA/ILSP	6/ 720	12/1,304	7/ 762	14/1,565
Project Acquisition Management Support	7/ 593	5/ 472	2/ 219	2/ 252
Software Technical Maintenance Actions	4/ 407	8/ 791	6/ 629	10/1,133
Total	17/1,720	25/2,567	15/1,610	26/2,950
Inspection & Survey (INSURV)				
Number of INSURV's Supported	127/ 496	101/ 406	109/ 446	108/ 460
Total	127/ 496	101/ 406	109/ 446	108/ 460

Activity Group: Logistics Support Activities (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria (Continued).

	FY 1988	FY 1989 (UNITS/\$000)	FY 1990	FY 1991
Safety				
Number of System Safety documents proofed or revised	1/ 55	1/ 55	1/ 55	1/ 55
Large System Safety Surveys	10/ 5	10/ 7	10/ 7	10/ 7
Number of Laser Safety Survey	3/ 66	2/ 28	1/ 15	1/ 15
Number of Laser Safety Workshops	2/ 36	3/ 45	3/ 45	3/ 45
Laser Safety Review Boards	6/ 45	5/ 45	4/ 37	4/ 43
Laser Prototype Development Evaluation	0/ 0	2/ 47	1/ 25	1/ 25
Laser Safety Standard/Publications	2/ 60	2/ 56	2/ 58	3/ 81
Laser Equipment Safety Evaluation	4/ 110	3/ 87	3/ 87	3/ 87
Laser Safety Fleet Assistance	3/ 27	3/ 27	3/ 30	3/ 30
Laser Safety Work Group Assistance	4/ 12	4/ 12	4/ 12	4/ 12
Total	416	409	371	400

NAVOSH		(UNITS/\$000)		
Number of Oversight Inspection	8/ 60	7/ 32	8/ 54	8/ 57
Number of Safety Evaluations	3/ 30	2/ 20	3/ 30	3/ 31
Number of Safety Course Development	2/ 71	2/ 71	3/ 100	3/ 104
Number of Safety Data Base Development	1/ 71	1/ 65	1/ 80	1/ 82
Total	232	188	264	274

IV. Personnel Summary. None

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

Activity Group: Industrial Preparedness Program (IPP)
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed

Industrial Preparedness - Provides industrial preparedness planning and development of industrial preparedness measures ensuring utilization of improved techniques which will shorten production lead time and reduce requirements for industrial manpower and critical materials. Also provides for maintenance of standby industrial capability, maintenance of industrial equipment in reserve, and related support of all ammunition shore activities with the objective to intensify Navy's industrial readiness.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout:

	FY 1988	FY 1989	FY 1990	FY 1991
	Actual	Amended Pres. Budget	Appropriated	Current Estimate
Industrial Preparedness	25	100	94	94
Total	25	100	94	94
			Budget Request	Budget Request
			114	121
			114	121

Activity Group: Industrial Preparedness Program (IPP) (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.			
1. FY 1989 Current Estimate			\$ 95
2. Pricing Adjustments			3
A. Other Pricing Adjustments	(3)		
3. Program Increases			16
A. Other Program Growth in FY 1990			
Increase provides for reviewing limited suppliers of Navy equipment in Diminishing Manufacturing Resources Material Shortages (DMSMS) to determine if sufficient resources are available (5); Production Readiness Reviews to determine if program design is ready for production (4); additional software maintenance support of the IPP data base (4); and a special study of industrial preparedness at SPAWAR repair facilities (NOSC) (3).	(16)		
4. FY 1990 President's Budget Request			\$114
5. Pricing Adjustments			3
A. Other Pricing Adjustments	(3)		
6. Program Increases			4
A. Other Program Increases in FY 1991			
Increase in Diminishing Manufacturing Sources Material Shortages (DMSMS) reviews to determine if suppliers have sufficient resources available (1); formal Production Readiness Reviews to determine if design is ready for production (2); and software maintenance support for Industrial Preparedness Program (IPP) data base for SPAWAR hardware (1).	(4)		
7. FY 1991 President's Budget Request			\$121

Activity Group: Industrial Preparedness Program (IPP) (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.	FY 1988	FY 1989	FY 1990	FY 1991
Diminishing Manufacturing Sources & Material Shortages (DMSMS)	0	14	20	22
Production Readiness Reviews PRR	8	12	17	20
Contractor Facility Surveys	17	30	30	30
Software/Planning Support	0	19	23	24
Special Studies Industrial Preparedness	0	20	24	25
Totals	25	95	114	121

IV. Personnel Summary. None

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

Activity Group: Engineering and Support Services
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed.

Electronic Warfare - This tactical intelligence and related function provides technical representatives, software maintenance, configuration maintenance, technical manual changes, Maintenance Requirement/Repair Card (MRC) changes, pre-deployment grooms, material expediting and engineering changes for OUTBOARD I and II, Cryptologic Combat Support Console (CCSC), Cryptologic Combat Support System (CCSS). The systems are deployed on surface Naval ships in direct support of tactical combat targeting operations. They provide critical information to platform commanders as well as the officer in tactical command of battle groups or surface action groups. There are currently 22 operational OUTBOARD equipped ships with eight to follow. CCSC and CCSS will be installed on more than 50 platforms in the next five years.

Portable Electronic Support Measures (PESM):

- Cryptologic Direct Support (CDS): - The equipment, subsystems, and systems supported under this line item are permanently installed at worldwide Navy Cryptologic Shore Support Activities (CSSAs) to provide tactically significant technical cryptologic data support to combatants and amphibious platforms. These include Multi-User Special Intelligence Communications (MUSIC) systems, Cryptologic Field Trainers, Mobile Systems Tactical Data Facilities (MSTDFs), CSSA Data Handling Systems, and CSSA ancillary equipments.

- Mobile Systems Technical Data Facility (MSTDF): - Funding supports the deployment and installation of production MSTDF systems to all planned sites. MSTDF hardware configuration status accounting and configuration management is also provided. Life cycle software maintenance at the Software Support Activity established at Naval Security Group Detachment, Pensacola is supported; software maintenance will only consist of maintaining current licenses for commercial software, ensuring compatibility of applications software with the current releases of commercial software and software configuration management.

- Cryptologic Field Trainer (CFT): - The available funding provides for the support to deployment and installation of 24 CFT systems. The CFT systems allow cryptologic field activities to train Direct Support (DIRSUP) augmentee operators prior to their deployment to tactical fleet operations. The system is a Computer-Based Training (CBT) device that simulates live target signal environments so operators can "tune" through for target environment training.

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed. (Continued)

- Tactical Cryptologic Support (TCS) - The equipment, subsystems, and systems supported under this line item are portable systems centrally located at forward staging areas, Fleet Electronic Support (FES) units, for deployment on Navy combatants and amphibious platforms by direction of the Fleet Commander in Chiefs (CINCs) on a mission-to-mission basis to provide tactical EMS support to the embarked commander relative to Mission area requirements. These include Cryptologic Vans, FES Support Systems, AN/SSQ-80s, Tactical Augments for Command and Control (TACCs), ASSURE II, Carry-On Sensitive Compartmented Information (SCI) Communications Suites, HF/VHF receivers, AN/UUA-7 Digicom replacements, and ancillaries. Funding provides for configuration control, inventory control, installation, maintenance, calibration, technical documentation review, NTP preparation and review, (TEMP) preparation and review, field repair, and in-plant repair.

Naval Information Processing System (NIPS) - This system includes intelligence equipment installed in the intelligence centers of the Aircraft Carriers (CV), the Amphibious Command Ships (LCC), the Amphibious Assault Ships (LHA/LHD), and four Navy shore commands. The purpose of NIPS is to process, analyze, display and disseminate intelligence data to the ship and the Battle Group to support Naval operations. The equipments comprising the NIPS are installed as 88 different suites of equipment consisting of the AN/USQ-34 (22); the AN/SYQ-64 (8); the AN/SYQ-9 (15); the AN/SXQ-8 (27); and the Fleet Imagery Support Terminal (16). These 88 systems in FY-1990 have increased from 66 systems in FY-1988 and will grow to 96 systems in FY-1991. Included with these systems is a National and Navy Intelligence Data Base and computer programs to operate the systems. The inventory of major equipments that comprise NIPS is extensive, ranging from data processing equipment procured in the early 1970's to photographic equipment, a major closed circuit television distribution system and fleet imagery support terminals.

Tactical Electromagnetic Program (TEMP) - Ensures readiness by providing a valid operational Electromagnetic (EM) Environment and the capability to monitor and assess this environment. This is accomplished through the following efforts: (1) operation, maintenance and overhaul of Fleet Electronic Warfare Support Group (FEWSG) simulators, and ECM jammers; (2) provides technical advice and acquisition management support for the NATO Multi-Service Electronic Warfare Support Group (MEWSG); (3) provides repair and maintenance of fleet jammers used for training and tactical contingencies; and (4) provides Electronic Counter Countermeasures (ECCM) handbooks for specific ship classes based upon the ship's radar suite.

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed. (Continued)

Electronic Warfare Reprogrammable Library (EWRL) The mission of the EWRL program is to provide, maintain, and tailor Standardized Electronic Warfare (EW) emitter reprogrammable data base libraries for all Fleet EW systems. The Electronic Warfare Operational Programming Facility (EWOPAC) develops and maintains the master world-wide EW data base which is adapted by Electronic Warfare Operational Programming Detachments (EWOPDETS) to meet theater specific operational requirements and includes the conversion and upgrade of extraction software to provide the capability to produce libraries for multiple EW systems.

Cover and Deception - Detailed data on the following equipment, subsystems and systems is of higher classification and will be provided as required. This line item provides for direct support of active fleet electronic warfare operations. Equipment, subsystems, systems and functions supported by this line item are:

- Shipboard Cover and Deception (SCD) - A configuration of specialized equipment, subsystems and systems which collectively provide Fleet Commanders with the capability to deceive and/or disrupt adversary operations.

Technical Publications - This program provides technical documentation for installation, training, operation, and maintenance of electronic systems for the Fleet and other users. The primary objective is to provide the best possible manuals with initial deliveries of every SPANAR hardware item and to maintain adequate stocks in the supply system of the approximately 11,000 SPANAR publications. The second objective is to correct any publication problems or deficiencies which may arise that reduce Fleet readiness. Finally, the last objective is to establish the SPANAR Technical Data Center, a central command repository for engineering data. This repository supports the Military Engineering Data Asset Locator System (MEDALS) and the Secretary of Defense's long term guidance to improve the acquisition, storage, update and retrieval of procurement and technical data in data repositories.

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

1. Description of Operations Financed. (Continued)

Reliability and Maintainability - This program provides technical surveillance of contracts to ensure that equipments are delivered without deficiencies. Selected systems, newly introduced into the Fleet, are evaluated to determine if design requirements are being met or to identify problems and develop corrective actions. Additionally, SPANAR is the Department of Defense designated preparing activity for yearly review and update of military standards for reliability testing, growth and thermal design. This program contains a requirement to maintain the integrity of Reliability Initiatives, Workmanship Screening, Human Factors Engineering, and Product Quality Program. This program terminates in FY 1989.

Electronic Test and Repair

- Intermediate Maintenance Activity (IMA) Support Development Program (IMASDP) - Designed to develop a realistic I-level support capability for SPANAR equipment. The thrust of this effort is directed towards in-service equipment. A team has been established to implement the IMASDP with membership drawn from CINCLANT/PAC, NAVSEA, NAVSUP, and SPANAR. The IMASDP effort will be implemented on a system by system basis and consists of the identification of candidate systems, the completion of maintenance and support requirements, identification and level of repair analysis; development of a maintenance plan, development of an implementing operational logistic support plan (OLSP), completion of a reprovisioning effort by Ships Parts Control Center (SPCC), and provide follow-on maintenance management support to implement the OLSP.

- Surface Ship Engineering Operating Cycle (SSEOC) - Finances the support for SPANAR cognizant electronic equipment installed in fleet units subjected to the Emergency Operations Center (EOC) maintenance philosophy. Execution of this maintenance philosophy requires the exchange and refurbishment of specifically designated equipment on a predetermined schedule, governed by periodicities resulting from an engineered analysis and published in class maintenance plans (CMPs) for those ships assigned to the EOC maintenance concept. Funds are provided for the restoration of changed out equipment.

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed. (Continued)

Electronic Test and Repair (Continued)

Electromagnetic Compatibility/World Administrative Radio Conference (EMC/WARC) - This program provides funding for (1) Fleet EMC Support Program analysis and development of solutions for Fleet Electromagnetic Interference (EMI) problems involving SPANAR systems; (2) Acquisition E3 (Electromagnetic Environment Effects) technical review, analysis and recommendations in EMI control of SPANAR systems acquisitions; (3) E3 Program support of Chief of Naval Operations (CNO) Executive Boards, Flag boards, and reports to CNO; technical evaluation/review of reports and other support of E3 program; (4) WARC support involving technical evaluation of impact of special WARCs and development of technical alternatives for Navy requirements, plus VHF frequency realignment for regions of U.S. and possessions includes implementation support; (5) E3 Training Seminar to train acquisition, lab, and inspection personnel for better acquisitions--E3 Newsletter to increase EMI awareness and provide guidance to Navy personnel--updating the EMI NTP--development of training modules--development of self-help films/tapes; (6) Shore Support in conducting EMI/RADHAZ survey by various SPANAR field activities, and implementation of new RADHAZ criteria. The program covers (1) the procurement of a basic 2M station for each site; (2) the development of a certification/recertification capability using CETS personnel; (3) a site equipment analysis capability to enable prediction of repair piece part requirements; (4) the development and installation of a necessary repair piece part support capability for each site; and (5) development and implementation of a data collection/reduction capability.

Automatic Data Processing (ADP) Security - This program provides the capability to assure that Navy ADP systems, which process, store or use classified or sensitive business data and produce sensitive output, will, with reasonable dependability, prevent deliberate or inadvertent access to sensitive material by unauthorized persons and unauthorized manipulation of the computer and its associated devices. ADP Security inspection teams design generalized test and evaluation procedures, modify them to provide a site inspection plan, and conduct the analysis and evaluation of each ADP system. Team personnel provide training and guidance to operational personnel and systems developers in obtaining system accreditation. Resources will also be used to review Research Development Acquisition/Mission Critical Computer Resources (RDA-MCCR) programs for correct implementation of security policy. Reviews will include security requirements, Accreditation Plans, designs, tests and certification packages.

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed. (Continued)

- Mission Critical Computer Resources (MCCR) - SPAWARSSCOM has been established as the Commonality Control Authority (CCA) for MCCR. As the CCA, SPAWAR has been required to perform duties including: Joint Logistics Commanders (JLC) support which provide resources for the JLC Joint Policy Coordinating Group on Computer Resource Management (JLC-CRM). Resources provide Navy support to develop, update and review joint service, Department of Defense and industry standards for application to the Navy MCCR program. Development, maintenance and annual submission of the Standard Embedded Computer Resources (SECR) Master Plan, which is the vehicle by which warfare and fleet support requirements, research, development and acquisition needs and platform commitments are documented. It is a comprehensive plan addressing the long-term use of computer resources in mission-critical systems and represents the Navy's investment and acquisition strategy that serves as the basis for improvements to existing SECR and provides the road map for transition to Next Generation Computer Resources (NGCR). Review of program initiation documents for the development of critically needed data documenting Navy computer resources requirements and utilization. Data is used to evaluate compliance with and assess effectiveness of computer resources policy and standards. SPAWAR is also responsible for review of computer security accreditation plans (CSAPs) and validation of computer security certification packages (CSAPs) prior to accreditation. Maintenance of MCCR Policy and Standards Support program, which includes developing and maintaining computer-related Tactical Digital Standards (TADSTANDS), including preparation of instructions implementing CNO policy and guidance, and reviewing waivers, including technical assessments and life cycle cost comparisons.

- Next Generation Computer Resources (NGCR) - Next Generation Computer Resources is an Research and Development (R&D) program initiated in FY 1988 to establish computing system architectures, functional interface standards and acquisition methodologies to provide a family of computing resources to cover the Navy's needs for a twenty year period beginning in FY 1996. A portion of the R&D effort is the development of a product certification facility to verify compliance of industry-developed computer equipments, hardware and software against NGCR standards, which are documents that define standard interfaces for computer hardware and software. This facility will also be used to maintain baseline documentation for all NGCR products, and maintaining the published NGCR standards. Development is being accomplished solely with R&D funding through FY 1990; the facility is scheduled to become operational in FY 1991, at which point Operations and Maintenance, Navy funding becomes necessary for accreditation support.

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed. (Continued)

Inspection Testing - This program provides test and evaluation of electronic systems and materials which is performed at independent government test agencies to include: qualification test on manufacturer's samples to determine compliance with the specification requirements and to establish the item on a Qualified Products List; special testing of failed material or intelligence items to determine serviceability of items in the supply system; pre-award surveys; and verification of production line items versus specification. It further involves the analysis of master test plans to determine that planned testing will be necessary and sufficient. It tracks progress of individual hardware acquisitions to assure appropriate testing is planned, conducted and analyzed. This program is terminated in FY 1989.

Maintenance Engineering - This program finances the implementation and management of the following efforts:
(1) ashore electronic Planned Maintenance System (PMS) program; (2) configuration management and nomenclature assignment efforts; (3) maintenance planning/logistic support analysis and level of repair analysis to assist with maintenance concepts, supply support, provisioning guidance, allowance list development, production liaison for major equipment and systems, and development of corrections for equipment deficiencies; (4) repair management of electronic material and quality control of the repaired product; (5) Depot Maintenance Inter-service (DMI) support; and (6) intensive in-service engineering support; and (7) Field Maintenance Agent support (FMA).

Maintenance Engineering - Buy Our Spares Smartly (BOSS) - This program implements Secretary of Defense initiatives to improve competition in the procurement of replenishment spare parts and ensure that fair and reasonable prices are paid for them. The primary emphasis of the program is to "breakout" replenishment spares/repair parts from the prime manufacturer to direct purchases from the original equipment manufacturer or from competitive procurement. The function includes the technical screening and review of spare parts Technical Data Packages to determine suitability for competition. BOSS also includes initiatives for improving documentation to make it suitable for competition and reviews of electronic components used in depot maintenance to ensure reasonable cost. BOSS ensures acquisition, adequacy, maintenance, storage and currency of design disclosure documentation to enable competitive procurement of all maintenance significant items in support of SPAWAR procured equipment/systems.

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

1. Description of Operations Financed. (Continued)

Other Engineering Services

- Uniform Inventory Control Point (UICP) Requirements Accumulator (RACC) - Provides Automatic Data Processing (ADP) support for management of SPANAR cog material as well as data concerning supporting equipment. Support includes requisition processing, asset availability data, and visibility of 22 cog requirements, on-line data via remote terminals, batch retrievals, and periodic management reports.

- Uniform Inventory Control Point (UICP) Resolicitation - Provides implementation support for development of local programs and enhancements for the Navy wide UICP redesign effort sponsored by NAVSUP.

- Fleet Modernization Program (FMP) Support - Functions include requirements definition, collation and analysis, data entry, retrieval and maintenance Fleet Modernization Program Management Information System (FMPMIS). Data is identified, assembled, interpreted, and input into a tracking system. Equipment/system availability studies in support of Alteration Verification and Fleet Modernization conferences are performed. Functions also include technical review of Basic Alteration Class Drawings (BACDs) to ensure proper installation of SPANAR cognizant systems aboard US Navy ships. These reviews include verification of system interfaces and consideration of other systems being installed at that time with their representative documentation.

- Acquisition Tracking - The SPANAR Material Acquisition System is required to amalgamate SCM/OPN/FMS/other material requirements into a consolidated data base. This program provides analysis, design, implementation, training, documentation, de-bugging, and modification as necessary. Increasing the time between regular overhauls for active fleet ships and increasing the number of restricted availabilities of short duration significantly increases work load, shortens response time and makes the need for an Automatic Tracking System essential.

- Survivability - Provides effort to develop implementing instructions and the organizational structure necessary to establish the program and to establish a survivability data base. Tracks and develops class-wide and fleet-wide fixes for deficiencies noted during previous shock tests and on a case-by-case basis, provides funding for specific high-visibility survivability improvements.

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed. (Continued)

- U.S. Coast Guard (COGARD) Support - Functions include liaison between SPAWAR/NAVSEA/COGARD; technical and material requirements definition, feasibility studies and analysis; acquisition monitoring and equipment delivery tracking for all SPAWAR cog equipment. Major efforts include providing support for the COGARD WHEC 378 FT FRAM Modernization Program; system upgrade for approximately 200 cutters; and development and implementation of the COGARD CUTTERALT Program for integration of COGARD requirements planning within the USN Fleet Modernization program.

- Alteration Management - This effort will develop and implement the procedures necessary to ensure that proper planning is done such that the technical, material and logistic elements of the program will support planned fleet implementation.

- Total Ship Test Program (TSTP) - Provides for the installation of specified test equipment and new system Planned Maintenance System (PMS) and Naval Surface Forces Atlantic Fleet (SURFLANT) and Naval Surface Forces Pacific Fleet (SURFPAC) ships. Along with installation, the program provides for validation of test procedures and Exterior Communication (EXCOMM) Circuit performance, training of fleet personnel, and follow-on calibration and repair of TSTP equipment.

- Shore Radiation Hazard (RADHAZ) Hazard of Electro Magnetic Radiation to Personnel (HERP) - Increased demand for engineering services exists because of new and substantially more stringent criteria (OPNAVNOTE 5100 of July 1985) for personnel RF radiation hazards protection. RADHAZ analysis and measurements are required to insure the safety of Navy personnel and civilians located in close proximity to Navy transmitter installations. Approximately 710 shore facilities worldwide require review and evaluation. Each facility is scheduled for review every five years.

- Warfare Systems Architecture and Engineering - Provides funding for (1) annual maintenance of the Battle Force Systems Engineering Plan (BFSEP) document, including review meetings and document updates; the BFSEP will include element-level Warfare Systems Performance Specifications (EMSPS); (2) Maintenance of Warfare Systems Controlled Interface Drawings (WSCIDs); and (3) Maintenance of Warfare Systems Test Specifications (WSTS's).

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed. (Continued)

- Warfare Systems Integration Laboratory - The Navy has determined that a Battle Force Systems Engineering (BFSE) site is required at Wallops Island, VA to support Battle Force Architecture and Engineering Programs, and to provide operational and analytical support for fleet exercises at sea. The Warfare Systems Integration Laboratory (WSIL) is a key component of this BFSE site, as it will provide command and control (C2) coordination, instrumentation, and data extraction, reduction and analysis for the various exercises conducted at Wallops. This will be accomplished by bringing a combination of Navy C2 systems and commercially-hosted instrumentation, simulation, and analytical assets on-line in the early 1990's time frame. Since, the engineering and operational needs for the BFSE site exist today, a subset of the WSIL hardware suite is being assembled in a small facility known as Interim WSIL (Z-41). Z-41 is a National Aeronautics Space Administration (NASA) building which must be returned to them by FY-1992. Early efforts in the Interim WSIL will probe some fleet exercise support, undertake the solution to a number of force level architecture and engineering issues, and allow for a gradual buildup of physical assets, operational tempo, and personnel expertise. Pending the construction and activation of MILCON Project P-300, the full-scale WSIL is currently projected for IOC in 1992. Thus, in the fiscal years 1990 and 1991, the two major O&M,N requirements for WSIL are Interim WSIL operations and maintenance and WSIL (P-300) activation.

Interim WSIL O&M,N funding in these years will provide for a minimum staff to maintain the equipment on-site and operate it in support of various Engineering/Fleet experiments/exercises. Additionally, it provides tenant payments to NASA under NSWC's host-tenant agreement with them, and allows a small amount for consumable repair parts and depot-level maintenance support as required.

WSIL activation funds in FY-1990 will provide some support to the MILCON process, specifically in the areas of engineering design and activation contract funding.

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1989				FY 1990	FY 1991
	FY 1988 Actual	Amended Budget	Appro- piation	Current Estimate	Budget Request	Budget Request
Electronic Warfare	2,692	3,073	3,067	2,880	2,960	3,162
Portable ECM	1,432	1,948	1,944	1,763	1,164	1,405
NIPS	1,708	1,879	1,877	1,891	1,874	2,073
TEMP/ENRL	1,406	2,036	2,036	2,009	2,386	2,291
Cover & Deception	2,299	2,521	2,517	2,542	2,979	2,082
Technical Publications	3,746	3,803	3,799	3,605	3,453	3,478
Reliability & Maintenance	376	596	596	0	0	0
Elec Test/Repair	1,029	2,325	2,322	2,319	498	555
EMC/WARC	4,863	4,213	4,209	6,085	7,245	6,907
ADP Security	863	818	510	1,024	2,695	3,718
Inspection Testing	340	443	443	0	0	0
Maintenance Engineering	6,778	6,581	6,567	6,479	3,820	4,237
Other Engineering Services	3,722	2,243	2,238	2,259	5,790	5,691
TOTAL	31,254	32,479	32,125	32,856	34,864	35,599

7 0596

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).		
1. FY 1989 Current Estimate		\$32,856
2. Pricing Adjustments		
A. Stock Fund		979
1) Non-Fuel	(-15)	
B. Industrial Fund Rates	-15	
C. Other Pricing Adjustments	(159)	
	(835)	
3. Functional Program Transfers		
A. Transfers out		
1) Inter-Appropriation	(-172)	-172
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 (-100).	-100	
b) 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 (-72).	-72	

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

<u>B. Reconciliation of Increases and Decreases (Continued).</u>		
4. <u>Program Increases</u>		
A. <u>One Time FY 1990 Cost</u>		
Other Engineering Services		
Tracking SPANAR acquisition is a one time cost to set up a system to monitor acquisition activities leading to delivery of SPANAR equipment for FMP installation. SPANAR FMP coordinator is a new function resulting from SPANAR reorganization specifically to improve this effort (87).		(87)
		7,465
B. <u>Other Program Growth in FY 1990</u>		
1. <u>NIPS</u>	(7,378)	
Increase for technical and repair support is due to complexity and increasing age of systems installed in intelligence centers supporting fleet operations as well as the increase in number of systems supported (35).		35
2. <u>EWRI</u>		
Increase reflects the provision of a rapid reprogramming capability of Electronic Warfare (EW) parametric data for the battle force commander. This capability will allow the battle group to reprogram constantly changing EW data organically within the time limits established by CNO directive OPNAVINST C3430.23. This task will cover two years and continue through FY 1991 (323).		323
3. <u>Cover and Deception</u>		
Increase provides In-Service Engineering Agent (ISEA) funding to support maintenance of system modernization of AN/SSQ-74 communication simulator vans (383) and AN/SLQ-33 acoustic noise simulator (29).		412

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

117

4. Technical Publications

Increase provides for 15 verifications which is a "hands on" application of the instruction given in the technical manuals as well as final check to ensure that all cabling, physical markings on the equipment, schematics, equipment layouts, etc. as indicated in the manuals are fully representative of the units (71); 68 additional comment sheets processed (13); and additional digitization of technical manuals at Technical Data Center (33).

1,399

5. EMC/WARC

EMC/WARC is a high-visibility program with expanding inter-service and inter-alliance responsibilities. Increase provides for 2K Spectrum Management Studies, which provide WARC support involving technical evaluation of impact of special WARCs and development of technical alternatives for Navy requirements plus VHF frequency realignment for regions of U.S. and possessions includes implementation support (650); 9 additional acquisition E3 surveys (31); 5 additional E3 training seminars (55); and 280 additional Battle Force E3 Evaluations (663) which provide program support to CNO executive boards, flag boards and reports to CNO.

1,244

6. Mission Critical Computer Resources

Develop and maintain guidance, policies and standards for embedded computer resources (579), and review acquisitions to ensure compliance with standards and policies, review requests for waivers to Navy standards to determine impact of waivers and recommend denial or approval of waiver request (665).

7 0599

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

400

7. ADP Security

Increased funding provides for three computer security evaluations (90); 8 technical assistance visits to Navy activities (88), 3 additional workyears for Inspector General support (25) and 9 additional compusec evaluations to ensure the security of information and computer resources throughout the DON (197).

14

8. Maintenance Engineering

Increase reflects pre-grooming end-to-end checkout of two additional Link 11 systems, which is successful in eliminating operational problems on designated platforms (14).

13

9. BOSS

Increase supports investigations of suspect overpriced items (13).

1,207

10. Other Engineering Services

Increase reflects new start in Alteration Installation Management which establishes controls on alteration installation team work activities to coordinate and reduce the number of ship visits to the absolute minimum and increase intensity of work during ship visits (126); new start in Shipyard Integrated Tests establishes controls on testing of SPAWAR equipments in shipyards to improve efficiency and technical performance thereby reducing the number of separate test actions (126); new start in COSAL updates which ensures greater technical accuracy and effect improvements in shipboard supply allowances for actual equipments installed (312); increase in Fleet Modernization Program to ensure delivery of SPAWAR equipments to shipyards and installing activities during ship availabilities

7 0600

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

Other Engineering Services (Continued)
as dictated by constantly changing ship schedules, planned support correlated with schedules (418).
4 additional workyears in Survivability which ensures shock and vibration characteristics of SPAWAR equipments to meet shipboard operating conditions (225).

106

11. The Total Ship Test Program (TSTP) purpose is to assess material readiness of shipboard electronic equipment through the implementation of system level tests. Increase reflects additional follow-on calibration of 207 units (20); 29 additional repair actions in shipboard exterior communications (38); 12 additional implementation actions (22); and 5 additional acceptance test actions (26).

1,029

12. Warfare Systems Architecture & Engineering
SPAWAR, as the Warfare Systems Engineer, has been directed to: 1) Translate and subsequently modify as dictated by technology and concept developments, the results of critical experiments, and changing technology, the Battle Force Top Level Level Requirement (TLR) into a Naval Warfare Systems Architecture (WSA) which will guide the engineering and acquisition of a cohesive, effective warfighting force, 2) Engineer and maintain a Battle Force interface requirements document and interface specifications to discipline and direct intersystems, interplatform, theater, joint and allied interfaces, and 3) monitor conformance to these documents and maintain configuration control. Funding in FY 1990 assumes

7 0601

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

Warfare Systems Architecture & Engineering (Continued)
maintenance and updating of interface drawings (WSCIDs)
and test specifications (WSTS) and maintenance of the
Battleforce Systems Engineering Plan (BFSEP)
developed in compliance with the above stated
direction (1,029).

13. INTERIM WSIL/WSIL ACTIVATION

1,079

New start in FY 1990. Interim WSIL funding in these
years will provide for a minimum staff to maintain
the equipment on-site and operate it in support of
various engineering/fleet experiments/exercises.
Additionally, it provides tenant payments to NASA
under NSMC's host-tenant agreement with them, and
allows a small amount for consumable repair parts
and depot-level maintenance support as required.
WSIL Activation funding will provide essential support
to the WSIL design process, defining required technical
equipment, ensuring evolving requirements are integrated
into the building design (1,079).

5. Program Decreases

A. Other Program Decreases in FY 1990

(-6,264)
-634

1. Portable ESM
Decrease in In-Service Engineering Agent (ISEA)
software/hardware support for the SSQ-80 (VAN)
which provides crypto support for the communication
equipment (-634).

2. NIPS

Decrease in installations and maintenance of
facility computer program data base support (-94).

-94

3. TEMP

Decrease reflects reduction in technical and
ISEA support to fleet units for AN/UHQ-13 (-16).

-16

-6,264

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

4. <u>Cover and Deception</u> Decrease reflects less In-Service Engineering Agent (ISEA) funding to support maintenance of systems modernization of AN/SIR-22 receiver (-29).	-29
5. <u>Technical Publications</u> Decrease reflects reductions of 15 in process reviews (-65) which are held to review the text to see that is accurately reflects stated maintenance concepts; 1 backlogged manuscript updated (-14), 16 current manuscripts (-113), and current workload of printing replenishment (-85).	-277
6. <u>Electronic Test and Repair</u> Decrease in the maintenance management support (-30), field activity management support (-4) maintenance planning analysis/level of repair analysis support (-37), and provisioning support (-42). Decrease will delay the backfit of maintenance capability for approximately 12 - 15 months.	-113
7. <u>Electronic Test and Repair</u> Decrease reflects reduction in mix of 250 change out equipments to be restored (-1,792).	-1,792
8. <u>Maintenance Engineering</u> Decreases due to fiscal constraints will occur in the following areas: printing/distributing Maintenance Requirement Card (MRCs) to the fleet (-41); review of maintenance plans (-24); assignment of Designated Overhaul Points (DOP) (-76); development of Allowance Part List (APLs) (-33); conduct provisioning conferences (-22); revision of Program Support Data (PSD) sheets (-37); update PSD data base (-5); process nomenclature request (-27); track Engineering Change Proposals (ECPs) (-23); and tracking Logistic Element Tracking System (LETS) (-16).	-304

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

9. Decrease reflects reduction in depot support for the AN/SSQ-88 system which is used on the CG-47 class ships, LHD class ships and for AN/FRT-96 transmitters (-15).	-15	
10. <u>BOSS</u> Decrease will result in 174 fewer Breakout Enhancements of Technical Data Packages (TDPs) (-2,259); decrease of 414 units of TDPs Digitization less being maintained and updated (-183), and 42 less Breakout Reviews (-116).	-2,558	
11. <u>EMC/WARC</u> - Reduction reflects 38 less shore support surveys being performed (-424).	-424	
12. <u>MCCR</u> Decrease reflects reduced maintenance of the Standard Embedded Computer Resources (SECR) master plan (-8).	-8	
6. FY 1990 Budget Request		\$34,864
7. Pricing Adjustments		
A. Stock Fund Rates	(3)	1,044
1) Non-Fuel	3	
B. Industrial Fund Rates	(183)	
C. Other Price Growth	(858)	
8. Program Increases		2,716
A. Other Program Growth in FY 1991	(2,716)	
1. Electronic Warfare Increase provides for In-Service Engineering Agent (ISEA) support for cryptological equipment systems (102).	102	

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

94

2. Portable ESM

Increase provides ISEA support for non-Defensive Electronic Countermeasures items over the life-cycle of the Mobile System Technical Data Facility (MSTDF) and Cryptologic Field Trainer (CFT) systems and to assist in processing and evaluating hardware change proposals. Funds for SSA System support provides for contractor technical support for detailed MSTDF trouble-shooting, as well as software and database modifications required for changing tactical system requirements. Additional program support provides the Shore Cryptologic Support System (SCSS) program with funds for program document preparation and review, procurement package preparation, graphics, and briefing support (94).

111

3. Portable ESM

Increase provides for maintenance of commercial software licenses, and for the restructuring of SCSS data bases. System software maintenance includes processing and correction of Software Trouble Reports (STRs), administration of system software configuration management, maintenance of commercial software licenses, and support for operational SCSS data bases (11).

140

4. NIPS

Program increase is to support data base and computer program maintenance with documentation (123); additional repair support due to the complexity and increasing age of these systems and installation support for two intelligence systems being installed in FY 1991 (17).

7 0605

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

5. <u>Technical Publications</u> Increase provides for 1 more verification (20) 1 current manuscript update (6) and 9 more printing replenishment (5).	31
6. <u>Electronic Test and Repair</u> Increase provides for restoration of 31 changed out equipments (218).	218
7. <u>ADP Security: Next Generation Computer Resources (NGCR)</u> New start to provide operational support, product certification and standards maintenance for the NGCR Product Certification Facility which becomes operational in FY 1991 (1,106).	1,106
8. <u>ADP Security: Next Generation Computer Resources (NGCR)</u> Increased level of effort to fund complete compliance reviews of acquisition plans, ensuring reviews are completed without forcing program delays (130).	130
9. <u>Maintenance Engineering</u> Increase reflects additional depot support for the AN/SSQ-88 system which is used on the CG-47 class ships, LHD class ships and for AN/FRT-96 transmitters (8).	8
10. <u>Maintenance Engineering</u> Increase provides for revised Program Support Data (PSD) sheets (4); process nomenclature requests (8) and track engineering change proposals (4).	16
11. <u>BOSS</u> Increase provides for 22 breakout (TDP) enhancements that will be maintained and reviewed to assure technical accuracy (292); investigations of suspect overpriced items (57).	349

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

12. Other Engineering Services Increase in Alteration Installation Management which increases the number of ship visits and intensity of work performed during visits (34).	34	
Increase in improving technical performance of Shipyard Integrated Test which establishes controls of testing SPANAR equipments in Shipyards (34).	34	
13. Interim WSIL Increase mandated by terms of host/tenant agreement with NASA (136).	136	
14. Warfare Systems Architecture and Engineering Increase due to the addition of three Warfare System Controlled Interface Documents in the maintenance process (187); and the introduction of 1 Warfare Systems Test Specification (20).	207	
9. Program Decreases		-3,025
A. One-Time FY 1991 Cost	(-87)	
Decrease in tracking acquisitions of FWP installations (-87).	-87	
B. Other Program Decreases in FY 1991	(-2,938)	
1. TEMP	-35	
Decrease reflects reduction in ISEA support to fleet units in maintenance of fleet jammers used for training & tactical contingencies (-35).		
2. EMRL	-145	
Decrease reflects reduced effort during the second year update of the Rapid EW reprogramming capability for Fleet Battle groups (-145).		

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

-1000

3. Cover and Deception
Program decreases in In-Service Engineering Agent (ISEA), Software Agent (SSA) and engineering technical services (ETS) for the AN/SLQ-34 (-246), AN/SLQ-33 (-40), and AN/SLQ-74 (-714) due to fiscal constraints.

-110

4. Technical Publications
Decrease reflects reduction in 5 backlogged manuscript updates (-80). Technical Data Center decrease reflects less digitization of technical manuals (-30).

-180

5. Electronic Test and Repair
Decrease reflects reductions in field activity management support (-21), maintenance management support (-83), maintenance planning analysis/level of repair analysis support (-36), and provisioning support (-40) due to fiscal constraints.

-556

6. EMC/WARC
Decrease reflects support for the 4 fewer EMC support problems (-130); 5 fewer Battleforce E3 evaluations (-88); 7 fewer shore support surveys (-85); and 10 fewer Spectrum Management studies (-253) due to fiscal constraints.

7. ADP Security:

-292

Mission Critical Computer Resources
Decrease reflects 6 less policy reviews and standards maintenance being performed (-292).

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued)

8. <u>Maintenance Engineering</u> Decrease reflects reductions in printing/ distributing maintenance requirement card (MRCs) to the fleet (-9); review of maintenance plans (-4); assignment of designated overhaul points for Depot Program Support (-4); development of allowance parts lists (-5); and conduct provisioning conferences (-5).	-27
9. <u>Other Engineering Services</u> Decrease in COSAL update which reviews accuracy of actual equipment installed (-108); decrease in Fleet Modernization Program FMP (-213). Decrease in Survivability program which reduce shipboard operating conditions (-129).	-450
10. <u>Total Ship Test Program</u> Decrease reflects less communication training given by field activities to fleet personnel (-15); one less calibration (-4); one less implementation action (-4); two less repair actions (-5); and one less acceptance test action (-7).	-35
11. <u>WSIL Activation</u> Decrease reflects reduced engineering designs (-55).	-55
12. <u>Interim WSIL</u> Decrease reflects reduced consumable repair parts purchased (-53).	-53
10. FY 1991 Budget Request	

\$35,599

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.

Electronic Warfare	FY 1988	FY 1989	FY 1990	FY 1991
EW Support Systems	50/2,692	47/2,880	46/2,960	47/3,162
TOTAL ELEC WARFARE	2,692	2,880	2,960	3,162
Portable ESM	24/ 344	48/ 528	48/ 528	58/ 636
Crypto Direct Support	93/1,088	103/1,235	58/ 636	70/ 769
Tactical Crypto Support	1,432	1,763	1,164	1,405
TOTAL PORTABLE ESM				
NIPS				
Computer Program Maintenance with Documentation	43/ 717	45/ 828	41/ 788	47/ 930
(USQ-34/SYQ-64/SYQ-9)	52/ 329	60/ 358	62/ 374	63/ 391
Repair Support (USQ-34/SYQ-64/SXQ-8/SYQ-9/FIST)				
Technical Service to fleet Units	52/ 251	60/ 289	65/ 314	65/ 321
(USQ-34/SYQ-64/SYQ-9/SXQ-8/FIST)	8/ 208	8/ 208	7/ 190	8/ 220
Installation Support (SYQ-9/SXQ-8/FIST)	45/ 53	45/ 58	44/ 58	45/ 61
Data Base Support				
Facility Maintenance and Operations	3/ 150	3/ 150	3/ 150	3 /150
(USQ-34/SYQ-64/SYQ-9/SXQ-8/FIST)				
TOTAL NIPS	1,708	1,891	1,874	2,073

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

Tactical Electromagnetic Program (TEMP)

FEWSG Repair & Maintenance
Simulation Vans (AN/UHQ-13)/EW Support
Sub-total FEWSG Repair & Maintenance

Electronic Warfare Reprogrammable Library

Sites

Electronic War Op Prog Fac

EWOP DETPAC

EWOP DET LANT

EWOP DET EUR

Sub-Total Sites

TOTAL EW Systems

NOTE: Effective FY 1989, the functions of Electronic Warfare Operations Detachment Europe (EMOPDETEUR) will be assumed by Electronic Warfare Operations Detachment Atlantic (EMOPDETLANT) thus reducing total detachments to two.

Hardware Systems (#Units)

Baseline

Shore

Afloat

Subtotal Hardware

Software Systems (#Units)

Baseline EW Systems

Shore

Afloat

Subtotal Software

	FY 1988	FY 1989	FY 1990	FY 1991
	7/ 693	8/1,343	7/1,371	8/1,384
	693	1,343	1,371	1,384
	273	252	445	410
	143	200	280	247
	151	214	290	250
	146	0	0	0
	713	666	1,015	907
	26	26	31	36

	4	3	20	20
	4	3	3	3
	0	0	5	10
	4	3	8	13
	26	27	27	27
	3	9	13	18
	0	0	1	1
	3	9	14	19

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

<u>EWRL (continued)</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Backlog</u>				
<u>Hardware (#Units)</u>	0	0	12	7
<u>Hardware (\$K)</u>	0	0	1,200	700
<u>Software (#Units)</u>	23	18	13	8
<u>Software (\$K)</u>	2,875	2,250	1,625	1,000

Note: Baseline EW systems varies depending on the addition or deletion of systems from the fleet inventory. Due to the similarity and transportability of software modules, overall cost per software package decreases over time.

GRAND TOTAL TEMP 1,406 2,009 2,386 2,291

Cover and Deception

<u>Shipboard</u>				
<u>AN/SLQ-34(V)</u>	42/ 785	42/ 760	42/ 770	42/ 550
<u>AN/SLR-22</u>	30/ 240	30/ 262	30/ 220	30/ 230
<u>AN/SLQ-33</u>	7/ 561	8/ 695	8/ 750	8/ 735
<u>AN/SSQ-74 VANS</u>	6/ 713	6/ 825	6/1,239	6/ 567

TOTAL COVER AND DECEPTION 2,299 2,542 2,979 2,082

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

<u>Technical Publications</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Quality Assurance</u>				
In Process Reviews	160/625	147/ 591	132/548	132/ 564
Verifications	48/211	53/ 240	68/320	68/ 340
Manuscript Reviews	390/403	473/ 502	465/510	465/ 529
<u>Updates</u>				
Manuscripts Updated	16/204	11/ 184	10/177	5/104
Backlog	80/835	68/ 735	52/592	53/617
Current				
<u>Comment Sheets Processed</u>				
Current	379/ 60	412/ 68	480/ 84	464/ 87
<u>Printing & Replenishment</u>				
Current Workload	1,191/943	960/ 643	798/ 543	807/ 565
<u>Eng Data Maintenance</u>				
Technical Data Center	465	642	679	672
TOTAL TECH PUBLICATIONS	3,746	3,605	3,453	3,478
<u>Reliability and Maintainability</u>				
Reliability Initial Workyears	0.3/ 28	0/ 0	0/ 0	0/ 0
Human Engineering Support	0.9/ 35	0/ 0	0/ 0	0/ 0
Quality Audits	3.0/ 89	0/ 0	0/ 0	0/ 0
RM & QA Support(ANDRULIS & FLTAC) WYs	1.8/ 151	0/ 0	0/ 0	0/ 0
Product Deficiency Evaluation WYs	1.0/ 73	0/ 0	0/ 0	0/ 0
TOTAL RELIABILITY & MAINTAINABILITY	7/ 376	0/ 0	0/ 0	0/ 0

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

Electronic Test and Repair
 Elec T&R (IMA Program Mgmt)
 Pro field Act Mgmt Support
 MPA/LOR Analysis Support
 Maint Mgmt
 Provisioning Support
 Sub-total IMA Pro Mgmt

	FY 1988	FY 1989	FY 1990	FY 1991
	.7/ 28	.9/ 37	.9/ 33	.3/ 12
	.9/ 31	2.0/ 70	1.0/ 35	0/ 0
	.6/ 63	1.0/ 105	.8/ 78	0/ 0
	.9/ 35	2.0/ 78	1.0/ 39	0/ 0
	157	290	185	12

Surface Ship Engineering Operating Cycle

Electronic T&R (SSEOC)
 Restor of Equip Chg Out
 Sub-total SSEOC

100/ 872	297/2,029	47/ 313	78/ 543
/ 872	/ 2,029	313	543

GRAND TOTAL ELEC TEST & REPAIR

1,029	2,319	498	555

EMC/WARC

Fit EMC Supt Prog Prob
 Acquisition E3
 E3 Train Sem/self-help sess
 Battle Force E3
 Shore Support surveys
 Spectrum Mgt Studies
 Total EMC/WARC

94/1,533	77/1,308	77/1,346	73/1,258
146/ 815	169/ 982	178/1,047	179/1,070
50/ 503	43/ 430	48/ 500	50/ 540
63/1,454	53/1,320	81/2,029	76/2,000
53/ 558	106/1,150	68/ 747	61/ 685
0/ 0	37/ 895	63/1,576	53/1,354
4,863	6,085	7,245	6,907

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>ADP Security:</u>				
<u>A. ADP Security</u>				
<u>T&E per year</u>				
Technical Assistance	0	0	3/ 90	3/ 91
IC Support	18/294	14/176	22/270	22/ 270
Compusec evaluations	39/351	7/ 63	10/ 90	10/ 90
Sub-total SEC	0	15/325	24/521	23.4/ 524
	645	564	971	975
<u>B. NCGR Accreditation</u>				
Product Certification	0	0	0	22/ 820
Standards Maint	0	0	0	3/ 286
Sub-total NCGR	0	0	0	1,106
<u>C. MCCR</u>				
Policy/STD Maint	0	0	12/579	6/ 288
Compliance Review	0	0	22/665	30/ 899
TADSTAND Waivers				
CRLCMP Review				
CSAP Review				
CSCP Validation				
DB Maintenance				
Master Plan				
JLC	0	138	130	100
Sub Total (MCCR)	218	322	350	350
	218	460	1,724	1,637
TOTAL ADP SECURITY	863	1,024	2,695	3,718
<u>Inspection Testing</u>				
Qualification Tests				
T&E Master Plan	3/ 24	0/ 0	0/ 0	0/ 0
TOTAL INSPECTION TESTING	2/316	0/ 0	0/ 0	0/ 0
	340	0/ 0	0/ 0	0/ 0

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

Maintenance Engineering

<u>3M PMS Support</u>				
RESP FRK RPTs	230/ 46	135/ 27	105/ 23	97/ 22
REV MRC PRGs	13/ 16	13/ 17	13/ 18	13/ 19
PRNT/DIST MRCs	400/100	400/ 104	244/ 59	221/ 56
DEV MRC CARDS	3/ 4	3/ 4	3/ 4	3/ 4
PREP LOEPs	15/ 5	15/ 5	15/ 5	15/ 5
<u>LOR Support</u>				
REV EQPT LORAs	24/ 60	24/ 62	24/ 64	24/ 66
PRVD TECH SUPT	7/ 15	7/ 16	7/ 17	7/ 18
<u>3M ICD Support</u>				
Revise DWGs	7/ 18	7/ 19	7/ 20	7/ 21
Revise DWG Plgs	52/ 13	52/ 13	52/ 13	52/ 13
Print/Dist DWGs	100/ 1	100/ 1	100/ 1	100/ 1
<u>3M Casrep Support</u>				
Prep DBASES	13/ 13	13/ 13	13/ 13	13/ 13
Fail Anal Reports	4/ 22	4/ 23	4/ 24	4/ 26
<u>3M EIC Support</u>				
Assign EICs	20/ 50	20/ 52	20/ 54	20/ 56
<u>3M Mag Support</u>				
Develop Maint Support Guide	8/ 20	8/ 21	8/ 22	8/ 23
Print/Dist Maint	9/ 7	9/ 7	9/ 7	9/ 7
<u>MPA Support</u>				
Rev Maint Plan	20/ 52	20/ 54	12/ 33	11/ 32
Prod Tech Support	8/ 16	8/ 17	8/ 18	8/ 19
<u>Depot Program Support</u>				
ASSIGN DOPs	88/220	88/ 228	60/ 161	58/ 162
CERT DOPs	46/ 35	46/ 36	46/ 37	46/ 38

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Maintenance Engineering (continued)</u>				
<u>MISO Program Support</u>				
DMISAs NEG	7/ 10	7/ 10	7/ 10	7/ 10
REV/REVS DMISAs	4/ 10	4/ 10	4/ 10	4/ 10
ANAL DLA ITEMS	100/ 25	100/ 26	100/ 27	100/ 28
PREP DMISAs	3/ 25	3/ 26	3/ 27	3/ 28
<u>Provisioning Support</u>				
DEV APLs	102/153	71/107	49/ 78	53/ 72
REV APLs	22/ 11	22/ 11	22/ 11	22/ 11
CNDT PRVC CNFs	20/130	14/ 92	11/ 74	1/ 65
REV PSD SHTs	49/100	48/ 90	31/ 56	32/ 60
UPDT PSD DBASE	20/ 10	22/ 10	10/ 5	9/ 5
PRVD TECH ASST	8/ 19	8/ 20	8/ 21	8/ 22
<u>Config Mgmt & Nomenclature Support</u>				
PRCS NMEN REQs	628/157	625/148	533/127	608/137
TRACK ECPs	767/115	766/105	623/ 86	625/ 90
VAL SOLSC Data	3,250/ 26	0/ 0	0/ 0	0/ 0
LETS Tracking	318/ 54	318/ 56	232/ 42	223/ 42
Travel	21/ 16	21/ 17	21/ 18	21/ 19
PCM TRAVEL	71,574	71,447	71,185	71,200
Sub-Total				
<u>Field Maintenance Agent Support:</u>				
ISEA # Equipment (supported)	3/ 292	2/176	2/168	3/179
Link 11 Grooms				
(# of Ships groomed)	7/ 58	7/ 56	9/ 70	9/ 73
Sub-Total FMA	10/ 350	9/232	11/238	12/252

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

Maintenance Engineering (Continued)

Maintenance Engineering - BOSS

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
Breakout (TDP)	1,480/2,220	1,000/1,470	927/1,409	922/1,454
Reviews				
Breakout (TDP)	209/1,767	198/2,465	24/ 300	46/ 600
Enhancement				
TDPs Digitization/	800/ 400	800/ 400	386/ 200	372/ 200
Storage/Maint				
AMC Assign (No.	20/ 357	18/ 344	18/ 350	18 / 350
of Contracts)				
Price Surveillance				
Review	1/ 110	1/ 121	1/ 138	1 / 181
Sub-Total	4,854	4,800	2,397	2,785
GRAND TOTAL				
MAINT ENGINEERING	6,778	6,479	3,820	4,237

Activity Group: Engineering and Support Services (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria. (Continued)

	FY 1988	FY 1989	FY 1990	FY 1991
OTHER Engineering Services				
RACC/ATS Updt & Inqs	70,000/ 48	42,000/ 30	42,000/ 30	42,000/ 30
UICP Milatrip Doc Pro	20,000/ 27	20,000/ 28	20,000/ 28	20,000/ 28
UICP Dta Upds/Retrvls	14,000/ 96	10,000/ 71	10,000/ 71	10,000/ 71
UICP Enhancement (WYs)	2/120	2/144	2/144	2/144
Alt Instl Mgmt (WY)	0/ 0	0/ 0	2/126	2.5 /160
Shpyd Intg Test (WY)	0/ 0	0/ 0	2/126	2.5 /160
COSAL Update	0/ 0	0/ 0	45/300	31 /207
FRP Support (WY)	9/649	6/471	10/886	8 /698
Tracking SPAMAR Acq	0/ 0	0/ 0	1/ 87	0 / 0
Survivability (WY)	2/220	1/167	5/408	3.5 /298
TSTP Implementations	0/ 0	37/ 78	49/103	48 / 99
TSTP Calibrations	0/ 0	243/ 73	450/ 96	449 / 92
TSTP Repair Actions	0/ 0	76/118	105/160	103 /155
TSTP Acpt Test Actns	0/ 0	17/ 96	21/122	20 /119
Acq Mgt Support for TSTP	0/ 0	1/ 24	1/25	1/ 26
RADHAZ Surveys	54/612	76/959	81/989	81/1,014
WSALE BFSEP	0/ 0	0/ 0	1.1/148	1.0 /135
WSCID	0/ 0	0/ 0	10/833	13/1,092
WSTS	0/ 0	0/ 0	1/ 22	2 / 43
WSIL ACTIVATION	0/ 0	0/ 0	1/109	.5 / 54
Equipment-Interim WSIL	0/ 0	0/ 0	777	/719
Field Service Eng-IW	0/ 0	0/ 0	50	/ 50
Spare/Repair parts-IW	0/ 0	0/ 0	25	/ 25
NASA H/T-Interim WSIL	0/ 0	0/ 0	125	/272
Other Engineering Services	/1950	0/ 0	0/ 0	0/ 0
TOTAL OTHER ENGINEERING SERVICES	3,722	2,259	5,790	5,691

Activity Group: Engineering and Support Services (Continued)
Claimant: Space and Naval Warfare Systems Command

IV. Personnel Summary. None

Activity Group: Contractor Technical and Maintenance Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate			\$2,475
2. Pricing Adjustments			79
A. Other Pricing Adjustments	(79)		
3. Functional Program Transfers			-2,554
A. Transfers Out			
1) Intra-Appropriation			
Transfer of the Fleet Engineering/Technical			
Support Program from Budget Activity 7 to			
Budget Activity 2, Fleet Operations Support			
consistent with department-wide funding policy			
that aligns funding responsibility with management			
responsibility to provide the maximum effective			
and efficient use of resources.			
4. FY 1990 President's Budget Request			\$ 0
5. FY 1991 President's Budget Request			\$ 0

Activity Group: Contractor Technical and Maintenance Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.	FY 1988	FY 1989	FY 1990	FY 1991
Mobile Technical Unit (W/Y/\$000) (Contractor)	6/ 675	7/ 812	0	0
Emergency Tech Assists (Field Visits/\$000)	306/1,152	310/1,263	0	0
Scheduled Ship Visits (Field Visits/\$000)	69/1,007	26/ 400	0	0
Total	2,834	2,475	0	0

IV. Personnel Summary. None

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

Activity Group: ASW Systems Support
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed.

Undersea Surveillance

Sound Surveillance System (SOSUS) provides for the collection and processing of undersea acoustic data. SOSUS consists of cable 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 electronics and installation to new shore facilities.

Maintenance of the existing systems is accomplished by three cable ships which are required in order to continuously provide one ship in the Atlantic and the Pacific for cable guard and repair services. A cable transporter ship and a survey ship also support the program which requires a substantial amount of cable repair material.

The U.S. Navy maintenance of SOSUS shore electronic systems hardware is augmented by American Telephone and Telegraph Technology (AT&T) Resident Engineer Support (one or two engineers per site), configuration control support and Naval Electronic Systems Engineering Center Maintenance of selected hardware, including shipyard maintenance periods, shore and cable inspection/repair and refurbishment of shore electronic hardware.

New deployments are achieved by an extensive oceanographic hydrographic and acoustic survey program followed by cable implantment and burial and array implantment.

This program transferred to Operations and Maintenance, Navy, Budget Activity 2, Fleet Operations Support in FY 1989.

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 T-AGOS, for data collection. A satellite relay is used to transmit acoustic data to a shore facility for processing and display.

Activity Group: ASW Systems Support (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed (Continued)

The program provides production unit operations and support of SURTASS units as follows:

SURTASS contract technicians to operate and maintain the SURTASS electronics aboard the T-AGOS ships; establishment and operation of on-shore logistics support which includes contractor operated intermediate maintenance facilities and spare parts depots for unique SURTASS equipment in Norfolk and Pearl Harbor; and Computer Software Maintenance.

During the phased introduction of the first 19 T-AGOS/SURTASS units, significant non-recurring start up costs (in advance of production unit operations) are required for contract technicians training, which begins 12 months prior to each unit becoming operational.

This program transferred to Operations and Maintenance, Navy, Budget Activity 2, Fleet Operations Support in FY 1989.

Anti-Submarine Warfare (ASW) Surface Ship Technical Support - This program funds a diversity of tasks in support of the ASW Master Strategy and Plan through the ASW Master Plan Group. Includes conducting Ship ASW Readiness/Effectiveness Measuring (SHAREM) exercises and the installation and collection of data from specialized equipment at Fleet exercise ranges under the Post-Operational Analysis Critique and Exercise Review (PACER) program. Also funds the installation and checkout of a specialized AN/SQS-26/53 active sonar tape recorder on selected surface combatants and the duplication and distribution of training tapes made from this system, the collection of environmental data from specified Arctic and other ocean areas for both the Arctic Warfare Program and the Basic Acoustics Model User's Support (BAMUS) program environmental databases, and the operation of and data collection from acoustic signal processing systems in the Fleet and those under development.

- ASW Technical Support - Annual update of technical and programmatic plans to resolve ASW problems identified in ASW Master Strategy. Includes investigative work in current weapon, acoustic, non-acoustic, undersea surveillance, environmental, threat, Command, Control and Communications (C3) and Command, Control and Communications Countermeasures (C3CM) systems. Complements Research, Development, Test and Evaluation work on future systems in same warfare categories. Category also includes operations of the Integrated Color Coded Format For Messages (RAINFORM) Analysis System (IRAS) which collects, analyzes, and disseminates ASW operational performance reports from the ASW multi-platform RAINFORM reporting system.

Activity Group: ASW Systems Support (Continued)
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed (Continued)

- Arctic Warfare Program (AWP) - Collection of data for environmental and programmatic AWP databases.
- ASW Models - 17 ASW models supported: ASW Asset Balance Campaign, Acoustic Baseline, Basic Acoustic Model (BAMUS), ASW Battle Force Defense Model (ABFDM), ASW Program series (APSUB, APSUB, APFIR, AP URV), ASW Command Control Communication (C3)/Counter Measure (CM), Multi-Platform Screen, Rapid Acoustic Detection Simulation, Dipping Sonar screening, Helo Dipping Sonar Engagement, Sub vs. Sub Engagement, Weapons, Integrated Undersea Surveillance System (IUSS), and Battle Force Defense Models.
- Ship ASW Readiness/Effectiveness Measuring Exercises (SHAREM) - Fleet exercises designed to collect performance data of ship ASW systems acting both independently and with other ASW platform systems. Sensor performance, long-range ASW detection, classification and localization performance, surface attack tactics, fire control accuracy, weapon performance, unit vulnerability, and command and control data is collected. Program includes design, conduct, reconstruction, and analysis of exercises.
- Post-Operational Analysis Critique and Exercise Review (PACER) Program - Installation, maintenance, validation and technical management of equipment used to reconstruct and analyze ASW exercises conducted on selected Navy ranges in St. Croix, PMRF (Hawaii), Manatee (Washington), and SOAR (California). A fifth range for the AUTECH facility at Andros Island in the Caribbean will be operational in mid-FY 1990.
- ASW Aviation Technical Support - This program funds a diversity of tasks in support of the ASW Master Strategy and Plan through the ASW Master Plan Group. Includes conducting Air Readiness/Effectiveness Measuring (AIREM) exercises involving maritime patrol (VP), carrier-based fixed wing (VS), carrier-based rotary wing (HS), and surface ship combatant-based rotary wing (HSL) ASW aircraft platforms. Exercise breakdown is normally 3 Fleet exercises per platform per coast per year. AIREM funding also includes on-site data collection, ASW air exercise range support during the AIREM exercises, processing of collected data, and publishing and distribution of exercise reports.
- Air Readiness/Effectiveness Measuring Exercises (AIREM) - Fleet exercises designed to collect performance data of air ASW systems acting both independently and with other ASW platform systems. Sensor performance, long-range ASW detection, classification and localization performance, attack tactics, weapons performance, unit vulnerability, and command and control data is collected. Program includes design, conduct, reconstruction, and analysis of exercises.
- ASW Submarine Technical Support - This program funds tasks to appraise submarine related issues in support of the ASW Master Strategy and Master Plan.

Activity Group: ASW Systems Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	FY 1989	FY 1990	FY 1991		
	Actual	Amended Pres. Budget	Appropriation	Current Estimate	Budget Request	Budget Request
Undersea Surveillance	172,861	0	0	0	0	0
ASW Surface Ship Tech Support	4,015	4,921	4,921	4,702	5,187	5,715
ASW Aviation Tech Support	1,135	1,532	1,532	1,532	1,562	1,690
ASW Submarine Tech Spt	67	164	164	0	0	0
Total	178,078	6,617	6,617	6,234	6,749	7,405

Activity Group: ASW Systems Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$6,234
2. Pricing Adjustments		220
A. Industrial Fund Rates	(34)	
B. Other Price Growth	(186)	
3. Functional Program Transfers		-14
A. Transfers Out		
1) Inter-Appropriation	(-14)	
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 (-14).	-14	
4. Program Increases		605
A. Other Program Growth in FY 1990		
Increase provides for one additional SHAREM exercise and cross SHAREM analyses in accordance with the ASW Master Strategy Plan which outlines fleet ASW requirements based on exercise results and fleet performance data from AIREM/SHAREM exercises and one additional SHAREM exercise and cross SHAREM analyses (300); PACER data base corrections and establishment of a fifth PACER range for the AUTECH facility which becomes operational in mid-FY 1990 (175); and two additional AIREM exercises, cross-AIREM exercise analysis and enhancement of data base utilization (130).	(605)	
5. Program Decreases		-296
A. Other Program Decreases in FY 1990		
Reduction reflects decrease of 2 workyears for ASW models and analysis support (-190), and decrease of 1 workyear for AIREM management support (-106).	(-296)	
6. FY 1990 President's Budget Request		\$6,749

7 0628

Activity Group: ASW Systems Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. <u>Reconciliation of Increases and Decreases (Continued).</u>		
7. Pricing Adjustments		
A. Industrial Fund Rates	(42)	208
B. Other Pricing Adjustments	(166)	
8. Program Increases		
A. Annualization of FY 1990 Increases. Increase for the full year cost of maintaining PACER data base corrections for the AUTEC range established in mid-FY 1990 (175).	(175)	479
B. Other Program Growth in FY 1991 Increase provides for one additional SHAREM exercise and cross SHAREM analyses in accordance with the ASW Master Strategy Plan which outlines fleet ASW requirements based on exercise results and fleet performance data from AIREM/SHAREM exercises (304).	(304)	
9. Program Decreases		
A. Other Program Decreases in FY 1991 Decrease reflects reduction in ASW technical and management support (-6) and decrease in PACER support (-25).	(-31)	-31
10. FY 1991 President's Budget Request		\$7,405

Activity Group: ASW Systems Support (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria.

ASW Surface Ship Tech Spt	FY 1988	FY 1989	FY 1990	FY 1991
ASW Tech Spt & AWP/Models (WY/\$000)	14/1,524	16/1,932	14/1,740	14/1,776
PACER Support (WY/\$000)	4/ 463	5/ 637	7/ 834	8/ 984
SHAREM Exercises (Units/\$000)	4/1,002	4/ 951	5/1,405	6/1,693
SHAREM Support (W /\$000)	9/1,026	10/1,182	10/1,208	10/1,262
TOTAL (\$000)	4,015	4,702	5,187	5,715

ASW Aviation Technical Support

AIREM Exercises (Units/\$000)	12/ 813	18/1,147	20/1,318	21/1,442
AIREM Mgmt (W/Y/\$000)	2.9/ 322	3.3/ 385	2.0/ 244	2.0/ 248
TOTAL (\$000)	1,135	1,532	1,562	1,690

ASW Submarine Technical Support

ASW Tech Std (Units/\$000)	1/ 67	0/ 0	0	0

Undersea Surveillance

SOSUS (\$000)	34,199	0	0	0
Cable & Survey (shipdays)	(1,464)			
Maintenance/Install/Restore/Material (\$000)	100,048	0	0	0
SURTASS (\$000)	38,614	0	0	0
(Operating Month:)	(122)			
Total	172,861	0	0	0

IV. Personnel Summary. None

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

Activity Group: Maintenance of Real Property
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

I. Description of Operations Financed.

Maintenance and Repair of Real Property - Provides financing for Electronic Engineering Field Activities to accomplish both scheduled and day-to-day recurring facilities maintenance and repair, as well as emergency work required to maintain facilities in an operational status and within Navy standards. Facilities include electronic shops, electronic laboratories, administrative spaces, maintenance and storage buildings. Also provides for maintenance and repair of facilities dedicated to support Navy Personnel and tenants of the seven SPAWAR R&D Centers (Naval Underwater Systems Center, Naval Air Development Center, David Taylor Naval Ship Research and Development Center, Naval Surface Weapons Center, Naval Coastal Systems Center, Naval Weapons Center, and Naval Ocean Systems Center).

Minor Construction - Provides for interior/exterior alterations and upgrading of spaces within the Commanding Officer's authority to accommodate new electronics mission tasks within shop, laboratory and engineering spaces at SPAWAR field activities. It also funds minor construction in support of military personnel in the seven SPAWAR R&D Centers.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988			FY 1989			FY 1990			FY 1991		
	FY 1988	Amended		FY 1988	Pres.		FY 1988	Current		FY 1989	Budget	
	Actual	Budget		Actual	Budget	Appropriation	Estimate			Budget	Request	
Maintenance and Repair	5,274	4,583		5,274	4,583	4,583	4,438			4,398	4,562	
Minor Construction	2,558	2,081		2,558	2,081	2,081	2,133			1,981	2,172	
Total	7,832	6,664		7,832	6,664	6,664	6,571			6,379	6,734	

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$6,571	
2. Pricing Adjustments			270
A. Industrial Fund Rates			
B. Other Pricing Adjustments	(262) (8)		
3. Functional Program Transfers			-13
A. Transfers Out			
1) Inter-Appropriation	(-13)		
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 (-13).	-13		
4. Program Increases			308
A. Other Program Growth in FY 1990	(308)		
Maintenance and Repair - Projects for building AFP-19 at Naval Electronic System Engineering Center, San Diego and Naval Electronic System Engineering Center, Vallejo which include ventilation upgrade, modernization of lobby and entrance for handicap access, and security control (297).	297		
Minor Construction - Alterations planned for Naval Electronic System Engineering Center, Vallejo which include power upgrades for ADP rooms and heating, ventilation and air conditioning expansion (11).	11		
5. Program Decreases			-757
A. Other Program Decreases in FY 1990			
Maintenance and Repair - Working toward completion of three year phased upgrade at Naval Electronic System Engineering Center, San Diego which results in a decrease of maintenance and repair actions and emergency work (-376). Reduction of	(-757) -461		

7 0632

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

requirements for Naval Electronic System Engineering Activity, Portsmouth due to occupancy of Building P-312 (-85).	-296	
Minor Construction- Decrease in support of tenant/military facilities based on proposed occupancy of new MILCONS (-190). Reduction of planned special projects at field activities (-106).		\$6,379
6. FY 1990 President's Budget Request		204
7. Pricing Adjustments	(196)	
A. Industrial Fund Rates	(8)	
B. Other Pricing Adjustments		196
8. Program Increases	(196)	
A. Other Program Growth in FY 1991	57	
Maintenance and Repair - Support for the recurring maintenance and repair projects for military/tenant facilities (46). Increase in materials and supplies required for repair projects (11).		
Minor Construction - Reduction of project backlog at NESEA St. Inigozes (122). Planned alterations at NAVELEX Vallejo for fire protection upgrades and building expansion (17).	139	
9. Program Decreases		-45
A. Other Program Decreases in FY 1991	(-45)	
Maintenance and Repair - Reduction in repair projects at NESEC Vallejo (-25).	-25	

Activity Group: Maintenance of Real Property (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Minor Construction - Completion of final
phase of facility upgrade at NESEC
San Diego (-20).

-20

10. FY 1991 President's Budget Request

\$6,734

7 0634

Activity Group: Maintenance of Real Property (Continued)
 Claimant: Space and Naval Warfare Systems Command

<u>III. Performance Criteria.</u>		<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Maintenance of Real Property</u>					
Backlog Maintenance/Repair (\$000)		1,318	1,247	1,502	1,780
Total Building (KSF)		12,139	12,342	12,390	12,390
<u>IV. Personnel Summary.</u>		None			

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

Activity Group: Base Operations
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Space and Naval Warfare Systems Command

1. Description of Operations Financed.

Operation of Utilities - Provides for electricity, water, steam, sewer and heat purchased from another Naval activity or commercial source in support of SPANAR Electronic Engineering field activities, tenant and military personnel facilities.

Other Engineering Support - Provides for custodial services, refuse disposal, emergency service work (other than real property), fire protection, leases, guard services, pest control, grounds maintenance and Architectural Engineering services for design of construction/repair projects at SPANAR field activities.

ADP Services - Provides for the hardware maintenance of the various communications systems installed at the Naval Telecommunications Systems Integration Center Testbed which supports approximately 15 fleet automated communications systems. These systems include all Naval Modular Automated Communications Systems (NAVMACS) configurations, Message Processing Distribution Systems (MPDS), Common User Digital Information Exchange Systems (CUDIXS), and other test and software support equipment. These systems are utilized on approximately 300 ships.

Other Personnel Support - Provides for shore base support functions to the military population such as military personnel general training, i.e., small arms qualified, firing exercises, pistol team, drug screening, legal, medical travel, and master at arms. It also provides support for chaplain activities, laundry, and troop feeding or operation of enlisted dining facilities.

Morale, Welfare, and Recreation - Provides support to a supervised and organized recreational program and libraries for the benefit and morale of military population (assigned/on board, retired, transients and tenants), their dependents and other eligible DOD civilian personnel.

Other Base Services - Provides common service support to tenant and military facilities. It also provides support to Bachelors Housing (BOQ/BEQ); detachments and transients on deployment/training; protection of the health and safety of participants and facilities such as fire, police and security protection, explosive ordnance program, custodial services, refuse and pest control, etc.

Base Communications - Provides for such costs as telephone services, local AUTOMON and long distance calls, switchboard support, message center support and telegraphic message capability, purchased communications costs, initial installation and monthly recurring charges.

Activity Group: Base Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988		FY 1989		FY 1990		FY 1991	
	FY 1988	Amended	Pres.	Appro-	Current	Budget	Budget	
	Actual	Budget		priation	Estimate	Request	Request	
Utilities	3,318	4,099		4,099	3,693	3,361	3,474	
Other Engineering Support	2,155	1,926		1,926	1,926	1,809	1,890	
ADP Services	225	170		170	0	0	0	
Other Personnel Support	1,809	2,908		2,908	2,274	2,337	2,402	
MWR Support	1,553	2,762		2,762	1,660	1,714	1,768	
Other Base Services	4,814	6,059		6,059	4,252	4,295	4,031	
Base Communications	3,449	3,045		3,025	3,827	5,516	5,085	
Physical Security	0	0		0	0	249	379	
Total	17,323	20,969		20,949	17,632	19,281	19,029	

Activity Group: Base Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$17,632
2. Pricing Adjustments		
A. Industrial Fund Rates	(605)	701
B. Other Pricing Adjustments	(96)	
3. Functional Program Transfers		
A. Transfers In		
1) Intra-Appropriation		
a) DDN Centralization- DDN costs are to be recovered by billing subscribers based upon their utilization network resources (1,987).	(1,987)	1,766
B. Transfers Out		
1) Intra-Appropriation		
a) SLOC funds to rent commercially leased space realigned to Budget Activity 9, Base Operations Support for direct payment to General Services Administration Federal Building Fund (F3FD -181).	1,987	
	(-221)	
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 workforce (-40).	-40	
4. Program Increases		
A. One-Time FY 1990 Costs		
Physical Security: increases for the following one-time efforts: rebadging of personnel and additional badges at Naval Electronic System Engineering Activity, San Diego (5); installation of chain link fence at SPAWAR headquarters (25); and installation of two intrusion detection devices at Navy Management Systems Support Office, Norfolk and Naval Electronic System Engineering Activity, Vallejo (50).	(230)	1,491

Activity Group: Base Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Base Communications- Lease expires for SPAWAR Headquarters building in June 1990. Relocating equipment, leased lines and instruments are one time costs associated with new leased spaces (150). 150

B. Other Program Growth in FY 1990 (1,261)
 Physical Security - Funding for upgrade and maintenance of physical security equipment such as locking devices, building alarm systems, intrusion detection devices, card key equipment, visitor control systems, security cages and risk assessment software. Security training and conferences are also funded (168). 168

Other Personnel Support - Increased service support for military personnel (815). 815

Base Communications - Increase due to MILCON projects P-379 and P-711 at Naval Electronic System Engineering Activity, St. Inigo, MILCON P-312 at Naval Electronic System Engineering Center, Portsmouth and installation/implementation of Consolidated Areas Telephone System at NESEC San Diego and NESEC Vallejo (276). 276

Morale, Welfare and Recreation - Increase in supplies for MWR activities (2). 2

-2,309

5. Program Decreases (-2,309)
 A. Other Program Decreases in FY 1990

Other Personnel Support - Decrease in one-time FY 1989 Productivity Enhancing Capital Investment to supplement the office automation system of Aerosystems Department of Naval Weapons Center, China Lake (-824). -824

Other Engineering Support - NESEC Portsmouth has leased two small, relocatable facilities as temporary space until MILCON P-312 is complete and ready for occupancy. These trailers will be disassembled and removed, no longer requiring annual rental fees. Transfer of GSA lease space at Charleston to SLUC (-28). -28

7 0639

Activity Group: Base Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Other Base Services - Decrease in contract security service and reduced common service support to tenants (-93).	-93	
Utilities - Reduction in purchased utilities (-235), decrease in industrial fund utility purchases (-29), and reduction due to energy conservation (-224).	-488	
Base Communications-Reduction of purchased communications (-210) and administrative reduction in long distance and toll calls (-666).	-876	\$19,281
6. FY 1990 President's Budget Request		
7. Pricing Adjustments		
A. Industrial Fund Rates	(484)	604
B. Other Pricing Adjustments	(120)	
8. Program Increases		471
A. One-Time FY-1991 Costs		
Physical Security - Increase for the following one-time efforts: security bar code reader (15); installation of controlled lighting above exterior doors at SPANAR headquarters to enable security guards to observe intruders seeking access (50); and installation of lighting around specific buildings at NESEA, St. Inigoes (15).	80	
B. Other Program Growth in FY 1991	(391)	
Physical Security- Funding for upgrade and maintenance of physical security equipment such as locking devices, building alarm systems intrusion detection devices, card key equipment, visitor control systems, security cages, vehicle barriers, controlled lighting and risk assessment software. Security training and conferences are also funded (123).	123	

Activity Group: Base Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Other Engineering Support- increase due to the requirement for additional 132,000 sq. ft. of space due to occupancy of MILCON projects P-379 at NESEA, St. Inigoes, P-312 and P-309 at NESEC, Portsmouth, and GSA warehouse space at NAVELEX Charleston (40).

40

Utilities--New occupancy of MILCON Project P-309 at NESEC Portsmouth will increase total utility costs to support fleet communications test equipment (32).

32

Base Communications- DDN Centralization- DDN costs are to be recovered by billing subscribers based upon their utilization of work resources (196).

196

9. Program Decreases

-1,327

A. One-Time FY 1990 Costs

(-230)

Physical Security - Decrease for one-time costs of rebadging personnel (-5), installation of chain link fence (-25), and installation of two intrusion detection devices (-50).

-80

Base Communications - Lease expires for SPAWAR headquarters building in June 1990. Relocating telephone equipment leased lines and instruments is a one-time cost decrease associated with new leased spaces (-150).

-150

(-1,097)

B. Other Program Decreases in FY 1991

Other Base Services- Decrease in security service and common support to tenants (-393).

-393

Utilities - Decrease industrial fund utilities at public work centers (-16); savings from energy conservation (-11).

-27

Activity Group: Base Operations (Continued)
Claimant: Space and Naval Warfare Systems Command

B. Reconciliation of Increases and Decreases (Continued).

Engineering Support - Decrease due to decreasing Architect - Engineering design services for construction (other than MILCON) projects (-21).	-21
Other Personnel Support - Reduction of service support for military personnel (-5).	-5
Base Communications - Reduction of purchased communications and administrative reduction in long distance and toll calls (-651).	-651

10. FY 1991 President's Budget Request

\$19,029

Activity Group: Base Operations (Continued)
Claimant: Space and Naval Warfare Systems Command

III. <u>Performance Criteria.</u>	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Operation of Utilities</u>				
<u>(MBTU)</u>				
Steam & Hot Water (Total) (01)	44,196	45,546	44,367	44,367
Purchased from NIF (02)	8,800	10,000	9,750	9,750
Purchased - Other Sources (03)	26,189	26,339	25,410	25,410
Generated In-House (04)	9,207	9,207	9,207	9,207
<u>(MWH)</u>				
Electricity (Total) (05)	34,236	46,244	47,156	48,156
Purchased - NIF (06)	27,776	39,688	40,605	41,602
Purchased - Other Sources (07)	6,460	6,556	6,551	6,554
Generated In-House (08)	0	0	0	0
<u>Water Plants & Systems (Total) (KGAL) (09)</u>				
Sewage Plants & Systems (KGAL) (10)	8,536	9,936	9,936	9,936
Air Cond & Refrigeration (TN) (11)	5,736	7,321	7,321	7,321
Other Utility Systems (12)	117	120	120	120
Fuel Plants 750K (BTU/HR MBTU) (13)	0	0	0	0
S&HW - Purchased NIF (14) (\$000)	9,986	9,986	9,986	9,986
S&HW - Purchased - Other (15) (\$000)	165	121	121	121
S&HW - Generated (16) (\$000)	766	748	754	773
Electricity Purchased - NIF (17) (\$000)	152	154	140	146
Electricity Purchased - Other (18) (\$000)	508	1,239	1,109	1,172
Electricity - Generated (19)	1099	770	541	560
Fuels (20)	0	0	0	0
Total Energy Cost (\$000) (21)	2,690	3,032	2,665	2,772
<u>Water Plants & Systems (22)</u>				
Sewage Plants & Systems (23)	122	107	121	121
Air Cond & Refrigeration (24)	100	93	97	103
Other Utility Systems (25)	23	40	43	43
Total Non-Energy Costs (\$000) (26)	383	421	435	435
TOTAL (N1) (\$000) (27)	628	661	696	702
	3,318	3,693	3,361	3,474

Activity Group: Base Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria (Continued).

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
<u>Operation of Utilities</u>				
<u>Operation of Utilities (\$000)</u>	3,318	3,693	3,361	3,474
Other Engineering Support				
<u>Engineering Support (\$000)</u>	2,155	1,926	1,809	1,890
Custodial Services (KSF)	564	604	654	660
Entomology Services (KSF)	480	485	502	510
Refuse Collect/Disposal	1,025	1,030	1,055	1,055
<u>BOS ADP Services</u>				
<u>BOS ADP (\$000)</u>	225	0	0	0
<u>Software Releases (including units)</u>	15	0	0	0
<u>Other Personnel Support</u>				
<u>Other Personnel Support (\$000)</u>	1,809	2,274	2,337	2,402
Military E/S	0	0	0	0
Civilian E/S	0	0	0	0
Total Personnel E/S	0	0	0	0
Military E/S Served	3,586	3,585	3,601	3,623
Civilian E/S Served	16,700	16,840	16,888	16,910
Population Served, Total	20,286	20,425	20,489	20,533

Activity Group: Base Operations (Continued)
 Claimant: Space and Naval Warfare Systems Command

III. Performance Criteria (Continued).

	FY 1988	FY 1989	FY 1990	FY 1991
<u>Morale, Welfare and Recreation</u>				
MWR (\$000)	1,553	1,660	1,714	1,768
Military E/S Served	3,412	3,569	3,691	4,121
Civilians Dependents E/S Served	37,390	38,560	38,872	40,162
Population Served, Total	40,802	42,131	42,563	44,283
<u>Other Base Services</u>				
Other Base Services (\$000)	4,814	4,252	4,295	4,031
<u>Base Communications</u>				
Base Communications (\$000)	3,449	3,827	5,516	5,085
Number of Instruments (units)	5,498	5,498	5,588	5,675
Number of Main Lines (units)	1,559	1,559	1,559	1,570
Daily Average Msg Traffic (units)	15,725	15,725	15,820	15,820
<u>Physical Security</u>				
Physical Security (\$000)	0	0	249	379
Security Training and Conferences	0	0	57	56
Maintenance/Upgrade of Security Equipment	0	0	168	299
Other Security Support	0	0	24	24

IV. Personnel Summary. NONE

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

Activity Group: Field Operations
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Chief of Naval Operations (OP-09B)

I. Description of Operations Financed.

A. Data Automation. The Naval Data Automation Command (NAVDAC) coordinates the development, testing, support, standardization and acquisition of major Automated Information Systems (AIS's), ADP equipment (ADPE), data communications equipment and services, and information systems policies and standards. NAVDAC provides this Navy-wide support through specific task assignments to the Navy Regional Data Automation Centers (NARDAC's) and Navy Data Automation Facilities (NAVDAF's) for the required programming, computer processing and technical support. These tasks fall into four major functional areas as follows: (1) Systems Software, Data Communications and Standards program which support systems software acquisition, maintenance, installation, and problem resolution for DoN non-tactical information systems and provides technical services ranging from development and maintenance of regional data processing networks to support Navy-wide information systems, standards development and performance evaluation; (2) Computer Program Development programs manage the development and implementation of policies and procedures related to applications software engineering and quality assurance, provide technical guidance and assistance in applications and supporting technology areas to all Navy ADP activities, consolidate functionally duplicative systems, and install newly consolidated systems at multiple sites; (3) Computer System Operations programs provide technical direction of computer systems operation Navy-wide, including development of policies, plans, standards and procedures governing establishment, growth and management of DoN non-tactical data processing installations, and design, development, implementation and maintenance of computer hardware and its related operational systems for all echelons of the Navy; and (4) Plans, Resources and Support programs develop DoN information systems plans, translate DoN approved information systems concepts and objectives into timephased resource requirements and formulate major policy on all aspects of Navy information systems management.

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

I. Description of Operations Financed (Continued).

Within NAVDAC'S four major functional areas are 18 programs that cross these functional areas. They are:

1. FINANCIAL - The Navy ADP Budget System provides automated support of COMNAVADAC in compilation, review/revision, preparation, and submission of the Navy ADP Budget.
2. THAIS - Provides seven Type Commanders with a standardized, integrated automated information system to manage logistics, operations, maintenance and administration of ships and aircraft that must remain in operational readiness.
3. ARCHITECTURE - Review Navy non-tactical ADP policy, organization, management requirements, and future planning. These reviews are initial steps in responding to the basic National Academy of Sciences recommendation that the Navy seize "the rapidly developing opportunity to improve its efficiency, economy and readiness by improving its ability to deal with information critical to its functions."
4. NAVY POSTAL POSITIVE ACCOUNTABILITY PLAN - NPPAP provides for the Navy's conversion to positive accountability for official (penalty) mail cost. This is accomplished through use of penalty postage meter stamps, penalty permits imprints, or penalty mail stamps vice the current "Postal and Fees Paid, Department of the Navy, DOD-316" indicia. Plan provides for central funding and procurement of necessary postage metering equipment and O&M,N funds required to pay for equipment maintenance agreement contracts and postage meter leasing fees for the first 36 months after installation to allow receiving commands time to budget for these expenses themselves.
5. BASES/STATIONS COMMUNICATIONS SUPPORT - Integrates eight closely related projects to provide a general communications architecture to be employed as a host independent network.

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

I. Description of Operations Financed (Continued).

6. COMMON USER NET (DDN) - A DOD-sponsored program which will provide long-haul data communications connectively to authorized users. This program provides technical support required to field the network, develops integration, plans and standard interfaces.
7. INFORMATION SYSTEMS STANDARDS MANAGEMENT - Serves as the Department of the Navy (DON) Information Processing Standards for Computers (IPSC) Program Coordinator. Supports development, coordination, publications, maintenance of standards for Navy research, and acquisition of automated tools for standards development.
8. TELEPROCESSING - This program directly supports a major goal of Navy teleprocessing policy to integrate Information Systems (IS) and teleprocessing planning and management on a Navy-wide basis, and to ensure controlled evolution toward standard Navy-wide networking utilities and teleprocessing services.
9. NAVY CONTRACTS - This program supports the mission to coordinate ADP system to minimize duplication of reporting and/or processing effort. The program provides ADP systems and services on a DON-wide basis and consists of a series of compatible and coordinated projects.
10. TOOLS AND TECHNIQUES - This program is the primary vehicle for stimulating advances in the technology used by Navy information system developers to design and implement systems for use in the non-tactical environment. The program identifies, assesses, promotes and integrates the technology with current corporate resources, procedures and policies.

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

I. Description of Operations Financed (Continued).

11. SOFTWARE LANGUAGES - Supports NAVDACs goal of achieving more responsive and efficient management of DON ADP resources. It is aimed at attacking and solving the problem of inefficiencies existing in automated information systems. Increased productivity by both man and machine reduces the requirement for expanded hardware and facilities.
12. BASIS - To provide ADP support to 110 bases and stations in 16 functional areas through development of functionally standard centrally designed and maintained multi-site/multi-year systems.
13. SOFTWARE SHARING - Supports the NAVDAC mission to initiate action for the development of standard systems throughout the Navy. The purpose of this program is to improve the efficiency, economy, and readiness of the DON through more effective management of automated information resources. The goal is to provide functional sponsors and functional managers with a management framework to identify duplications, incompatibilities, and omissions in automated information systems support.
14. ADP SECURITY - This program directly support DON goals to reduce vulnerability in both mission critical and mission support resources/computer systems in the Navy. This program consists of six projects which together provide a consistent method for ADP security management in Navy activities, platforms and related telecommunications and that deal directly with modification, destruction, disclosure, denial of service, fraud, waste, and abuse of all types of computer-based resources.
15. CONFIGURATION MANAGEMENT - This program is directed toward the development of standard systems to supply the data needed for information resources management in the Navy. The program includes collecting and maintaining information and statistics on Navy ADPE inventories; review, analysis and elimination of obsolete ADP hardware; and the development of a decision support system for Navy DPLs.

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

I. Description of Operations Financed (Continued).

16. THIRD-PARTY TESTING - This program directly supports DON requirements for test and evaluation efforts dealing with systems security and independent, third-party reviews of Navy information systems. These test and evaluation requirements are in accordance with DON Life Cycle Management of Automated Information Systems.

17. ADP TECHNOLOGY - Within the ADP Technology programs there are several different initiatives. A database machine prototype is being evaluated for potential use throughout the Navy by users and developers. An office automation prototype will allow evaluation and increased understanding in the area of office automation prior to administering policy and standards to the rest of the Navy. Investigation of new software languages for developers as well as unsophisticated end users are being pursued. Workbench technology provides a combination of hardware and software to expedite development of application systems. Through evaluation of UNIX software, expertise will be gained to provide better guidance and support for small system users in Navy.

18. PERFORMANCE MANAGEMENT - This provides support to NAVDAC goals: (1) to develop a means of judging the performance of ADP organization and (2) to achieve more responsible and efficient management of ADPE resources throughout the Navy. The program consists of four projects which support an integrated approach towards establishing and monitoring a performance measurement program for all Navy ADP activities.

9. Miscellaneous Field Operations.

1. The Navy Industrial Resources Support Activity (NAVIRSA). NAVIRSA compiles the Navy's annual Commercial Activities (CA) inventory for CNO (OP-04) and conducts studies of Navy CA and other statistical data to determine areas of program improvement. NAVIRSA further coordinates Navy policy and procedures, where applicable, for management of plant equipment and industrial facilities at in-house (Government-operated) and contractor plants as required by higher authority.

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

I. Description of Operations Financed (Continued).

They annually prepare Navy's Departmental Industrial Reserve Plant Report and the Report on Real and Personal Property for the Comptroller of the Navy for use by Congress. The Navy's Contractor Property Management System Database is used annually to post data to the DON SF-220, Report on Financial Position, which is provided to the Executive Department. They also coordinate, perform technical evaluations, and establish and maintain a management information system for the Manufacturing Technology Program within the Navy.

2. The Navy's Electronics Manufacturing Productivity Facility (EMPF) is chartered under the sponsorship of ASN (S&I) to lead a cooperative effort among manufacturers, contractors, and other Government activities. The thrust of this effort is the development of scientific electronics manufacturing processes and process controls, and to demonstrate high quality discipline in manufacturing in order to achieve a more effective and efficient weapons acquisition cycle. The objective is met by testing, evaluating, and demonstrating electronics manufacturing technology; and, documenting and disseminating the findings of all the manufacturing process assessments and manufacturing technology developments. These functions are performed with the goals of helping government and industry to reduce the cost of weapons systems, to attain a faster transition to production, and to eliminate waste by building equipment right the first time. The EMPF became a detachment of NAVIRSA beginning in FY 1988 with funding on a reimbursable basis in FY 1988 and on a direct basis in FY 1989.

C. Automatic Data Processing Selection Office (ADPSO). ADPSO is responsible for evaluating and selecting for approval by the senior ADP Policy Official, ADP Resources (equipment, software, and contractual services) which are above specified thresholds; acting, when delegated, as the Department of the Navy Contracting Office for the procurement of the foregoing ADP resources; and performing such other functions as directed.

Activity Group: Field Operations (Continued)
 Claimant: Chief of Naval Operations (OP-098)

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	Budget Request
NAVDAC	21,960	21,712	21,161	20,911	20,591	17,523	
NAVIRSA/EMPF	1,001	7,536	7,487	7,490	5,949	6,038	
ADPSO	3,784	3,780	3,755	3,806	3,931	3,985	
Total, Field Operations	26,745	33,028	32,403	32,207	30,471	27,546	

Activity Group: Field Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$32,207
2. Pricing Adjustments		1,110
A. Annualization of FY 1989 4.1% Direct Pay Raise	(57)	
1) Classified	57	
B. FY 1990 Direct Pay Raise	(82)	
1) Classified	82	
C. Stock Fund	(1)	
1) Non-Fuel	1	
D. Industrial Fund Rates	(804)	
E. Other Pricing Adjustments	(166)	
3. Functional Program Transfers		1,402
A. Transfers In		
1) Intra-Appropriation	(1,402)	
Transfer from NAVTELCOM BA 3 for	1,402	
installation/subscriber costs		
associated with Data Defense Network.		

Activity Group: Field Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases (Continued).

690

4. Program Increases

A. Other Program Growth in FY 1990

(690)

341

- 1) COMMON USER NET program requirements to develop a Navy network security architecture and planning guidelines continue to increase. It now includes fleet pier support, Navy base network control center key distribution procedures, coordination of the SPAWAR Survivable Adaptable Fiber-Optics Embedded Network (SAFENET) effort with the Navy Data Communications Control Architecture Security Sub-Architecture, and participation in NBS/NSA/DON Signal Intelligence Groups and standards activities.

281

- 2) NAVY CONTRACTS increase is due to a 50% increase in the number of umbrella contracts for which the NAVDAC community will provide technical and contract management support. The number of contracts being supported increases from 6 to 12 with the dollar value increasing from approximately \$600 million to \$1 billion.

50

- 3) NAVIRSA data bases for ASN (S&L) and CNO include those for Manufacturing Technology (MT), Best Manufacturing Processes (BMP), Contract Property Management System (CPMS), Departmental Industrial Reserve Plants (DIRP), Commercial Activities (CA), Navy Commercial Activities Support System (NAVCASS), and Model Installation Extension Program (MIEP). Growth reflects increased

Activity Group: Field Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases (Continued).

4. Program Increases (Continued)

use of these databases by the program
 sponsors and other users.

- 4) ADPSO has additional maintenance costs
 for three MicroVAX II/Q5 minicomputers
 which will no longer be under warranty.

18

5. Program Decreases

A. One-Time FY 1989 Costs

- 1) Decrease for one-time FY 1989
 funding provided for costs
 associated with the establishment
 of EMPF under NAVIRSA.

(-408)

-296

- 2) Decrease for one-time FY 1989
 funding associated with the ASN
 (S&L) mandate for NAVIRSA
 mission functions to fully
 encompass Navy Plant Equipment,
 Commercial Activities and
 Manufacturing Technology
 Management.

-112

-4,938

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases (Continued).

5. Program Decreases (Continued)

B. Other Program Decreases in FY 1990

(-4,530)

-13

1) FINANCIAL decrease reflects savings realized through the modernization of the Navy Automated Budgeting System (NABS). Operating costs will gradually decrease as NABS program transitions to modern computers. The software, where the greatest costs are now incurred, is being re-written to facilitate routine data base maintenance by the user.

-74

2) CONFIGURATION MGMT decrease is due to cost saving resulting from the combining of two Navy Inventory Systems (ADPPRS/ITRRS) into one.

-83

3) POSTAL ACCOUNT decrease is due to expiration of the leasing and maintenance of equipment contract.

-729

4) BASIS decrease is associated with implementation of 15 sites in FY 1990 as compared to 24 sites in FY 1989.

-90

5) NAVDAC - Decrease reflects the decrementing of NAVDAC programs to accommodate reprioritization of Navy resources. These include Architecture, Base Communications Support, Information System Standards, Teleprocessing, Tools and Techniques, Software Languages, ADP Security, Third Party Testing, and Performance Management.

7 0656

Activity Group: Field Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases (Continued).

5. Program Decreases (Continued)			
6) Decrease reflects streamlined NAVIRSA oversight for the Best Manufacturing Processes (BMP)/Manufacturing Technology (MT) programs.	-213		
7) Decreased CAAS effort at NAVIRSA and EMPF for Hazardous Waste Minimization, substances causing ozone depletion, and weapons systems manufacturing productivity.	-1,220		
8) THAIS Reduction associated with realignment for operational support of THAIS to CINCPACFLT (-2,108).	-2,108		
6. FY 1990 President's Budget Request		\$30,471	
7. Pricing Adjustments		968	
A. Annualization of FY 1990 Direct Pay Raise	(28)		
1) Classified	28		
B. FY 1991 Direct Pay Raise	(132)		
1) Classified	132		
C. Stock Fund	(1)		
1) Non-Fuel	1		
D. Industrial Fund Rates	(719)		
E. Other Pricing Adjustments	(88)		
8. Program Increases			33
A. One-Time FY 1991 Costs	(22)		
1) One extra workday of civilian employment in FY 1991.	22		

Activity Group: Field Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases (Continued).

8. Program Increases (Continued)

B. Other Program Growth in FY 1991

(11)

- 1) NAVIRSA databases for ASN(S&L) and CNO include Manufacturing Technology (MT), Best Manufacturing Processes (BMP), Contract Property Management System (CPMS), Departmental Industrial Reserve Plants (DIRP), Commercial Activities (CA), Navy Commercial Activities Support System (NAVCASS), and the Model Installation Extension program (MIEP). Growth reflects increased use of these databases by the program sponsors and other users.

11

9. Program Decreases

-3,926

A. Other Program Decreases in FY 1991

(-3,926)

- 1) BASIS decrease is due to programmatic adjustments resulting in only 13 sites being implemented in FY 1991 as compared to 15 sites in FY 1990.

-211

- 2) FINANCIAL decrease represents conversion/modernization fully implemented and in its first full year of operation, software maintenance savings are being realized as system users assume responsibility for updating the Navy Accounting and Budgeting System (NABS) software data base.

-40

7 0658

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases (Continued).

9. Program Decreases (Continued)

- 3) TOOLS & TECHNIQUES decrease represents a change in the program to scale down the Navy-wide software development and maintenance modernization efforts. -162
- 4) THAIS program decrease represents reductions in programming support. THAIS is currently scheduled for full scale deployment in FY 1989. Programming support requirements will shift to maintenance and enhancements. -682
- 5) SOFTWARE LANGUAGES program decrease is due to the planned completion of Unix research in FY 1990. Remaining effort will concentrate in developing Unix training requirements and continued PERKIN-ELMER support. -155
- 6) BASE COMM SUPPORT decrease relates to the planning guidelines for the Base Information Transfer System (BITS) and base-level Network Control Center which will be developed and field tested by FY 1991. Efforts will continue on maintaining the developed planning guidance and supporting Navy Data Communications Architectures. -325

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases (Continued).

9. Program Decreases (Continued)

-607

- 7) ADP SECURITY program decrease is due to diminishing training requirements initially incurred with the implementation of DONIRM Security Program. Additionally, several phases of development tasks have been completed resulting in a lower programmatic cost profile.

-585

- 8) CONFIGURATION MANAGEMENT decrease is due to total implementation of the combining of two Navy Inventory Systems - Automatic Data Processing Personnel Reporting System (ADPPRS)/Information Technology Resources Reporting System (ITRRS) - into one.

-268

- 9) PERFORMANCE MANAGEMENT program decrease is due to the reduced need for development of CPM tools for IBM compatible hardware environments. Off-the-shelf CPM software will satisfy the upcoming need for such tools (for SPLICE and other new contracts).

-10

- 10) ADP TECHNOLOGY program decrease reflects the phase down of a three year effort to implement and integrate expert systems technology into use with non-mission critical AISs.

-82

- 11) POSTAL ACCOUNT decrease relates to the leasing and maintenance of equipment which will be expiring during FY 1991.

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09A)

B. Reconciliation of Increases and Decreases (Continued).

9. Program Decreases (Continued)

12) COMMON USER NET program decrease reflects partially completed integration efforts among authorized users.	-257
13) Navy-wide Umbrella contracts program decrease reflects the completion of the acquisition of two umbrella contracts during FY 1991.	-190
14) NAVDAC - Decreases reflect the decrementing of NAVDAC programs to accommodate reprioritization of Navy resources. These include Architecture, Information System Standards, Teleprocessing, and Third Party Testing.	-173
15) Decrease reflects down-scoping of the tasks assigned by ASN (S&L) to NAVIRSA in support of the Best Manufacturing Processes (BMP) and Manufacturing Technology (MT) programs.	-109
16) Decrease reflects streamlining efforts for improved acquisition management at ADPSO.	-70

10. FY 1991 President's Budget Request

\$27,546

Activity Group: Field Operations (Continued)
Claimant: Chief of Naval Operations (OP-09B)

III. Performance Criteria.

A. NAVDAC (\$000s)

	FY 1989	FY 1990	FY 1991
FINANCIAL	152	138	103
THAIS	6,173	2,931	2,345
ARCHITECTURE	705	652	648
POSTAL ACCOUNTABILITY	329	244	170
BASES/STATIONS COMM SUPP	1,663	1,739	1,471
DDN IMPLEMENTATION	652	2,522	2,348
INFO SYS STDS MGMT	1,297	1,411	1,403
TELEPROCESSING IMPRV	1,986	1,958	1,946
UMBRELLA CONTRACTS	600	1,231	1,082
INFO SYS DEL TOOLS & TECH	798	868	735
NAVY-WIDF S/W IMPRV PROG	349	431	290
BASIS	1,995	1,333	1,166
APPL S/W STD & SHARING	334	333	344
ADP SECURITY	1,883	1,857	1,311
CONFIGURATION MGMT	1,112	1,032	481
INFO SYS 3RD PARTY TST	438	431	429
PERF/EVAL MGMT	837	826	585
ADP TECHNOLOGY	657	654	666
NAVDAC TOTAL	21,960	20,591	17,523
B. NAVIRSA/EMPF (\$000)	1,001	5,949	6,038
Databases maintained	7	7	7

Activity Group: Field Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

III. Performance Criteria.		FY 1988	FY 1989	FY 1990	FY 1991
C. ADPSO (\$000)		3,784	3,806	3,931	3,985
NUMBER OF CONTRACTS AWARDED		9	9	9	9
VALUE OF CONTRACTS		1,919B	1,919B	1,919B	1,919B
PROJECTS:					
IN CONSULTATION		8	8	-	-
IN ACCEPTANCE		30	30	30	30
\$ VALUE (\$BILLIONS)		6.0	6.0	6.0	6.0

Activity Group: Field Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

IV. Personnel Summary.		FY 1988	FY 1989	FY 1990	FY 1991
End Strength (E/S)					
A. Military		5	71	71	71
Officer		4	35	35	35
Enlisted		1	36	36	36
B. Civilian		91	131	131	131
USDH		91	131	131	131

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

Activity Group: Base Operations
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Chief of Naval Operations (OP-09B)

I. Description of Operations Financed.

Base Operations Support. Provides for Morale, Welfare and Recreation support for the Naval Research Laboratory, planning and management support to the Navy Energy Program, and ADP Support to various activities.

Morale, Welfare, and Recreation (MWR). Provides authorized appropriated fund support for the Naval Research Laboratory (NRL). Supports a supervised and organized recreational program for the benefit and morale of assigned military personnel, tenant personnel and eligible DOD civilians.

Other Base Services. Provides planning and management support to the Navy Energy Program. This program provides more energy efficient methods and systems for application to ships, aircraft and facilities.

ADP Services. Bases and Stations Information System (BASIS) provides ADP support through development of functionally standard, central-designed and maintained multi-site/multi-year systems.

Activity Group: Base Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

II. Financial Summary (In Thousands of Dollars).

A. Sub-Activity Group Breakout.

	FY 1988 Actual	FY 1989 Amended Pres. Budget	FY 1989 Approp- riation	Current Estimate	FY 1990 Budget Request	FY 1991 Budget Request
MWR Support	258	252	250	211	247	264
Other Base Services	1,349	1,344	1,862	1,862	2,166	2,252
ADP Services	600	546	511	511	-0-	-0-
Total, Base Ops.	2,207	2,142	2,623	2,584	2,413	2,516

Activity Group: Base Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate			\$2,584
2. Pricing Adjustments			112
A. Industrial Fund Rates	(85)		
B. Other Pricing Adjustments	(27)		
3. Program Increases			246
A. Other Program Growth in FY 1990	(246)		
1) Provides additional manhours and small purchases to expedite transition of energy conservation products completed by the RDT&E programs to ensure achievement of energy cost savings on schedule. (i.e., reduce energy costs by \$40M per year through FY 1991 compared to FY 1988). Specifically, in FY 1990 this increase will be used to provide assistance to the fleet to accelerate the use of pre-flight planning software for F-14/F-18 fleets to reduce fuel consumption (228).	228		
2) Funds to provide previously deferred maintenance, upkeep, and repair of aging MWR facilities. Will cover only recurring maintenance and repair (18).	18		

Activity Group: Base Operations (Continued)
 Claimant: Chief Of Naval Operations (OP-09B)

B. Reconciliation of Increases and Decreases (Continued).

4. Program Decreases		-529
A. Other Program Decreases in FY 1990	(-529)	
1) Completion of the remaining development effort of the Bases and Stations Information System (BASIS)(-529).	-529	
5. FY 1990 President's Budget Request		\$2,413
6. Pricing Adjustments		83
A. Industrial Funds Rates	(75)	
B. Other Pricing Adjustments	(8)	
7. Program Increases		20
A. Other Program Growth in FY 1991	(20)	
1) Maintenance and repair funding to partially address existing hygienic and safety problems at NRL previously uncorrected due to funding limitations. Because of aging of these facilities these problems are now critical (10).	10	
2) Increase for the Navy Energy Program to accelerate the application of hand held fuel use management calculators for the A-6 and S-3 fleets to improve fuel efficiency and range by approximately 3% (10).	10	
8. FY 1991 President's Budget Request		\$2,516

Activity Group: Base Operations (Continued)
 Claimant: Chief of Naval Operations (OP-09B)

III. Performance Criteria and Evaluation.

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
1. <u>MWR Population Served (Users)</u>				
Military Served	290	290	290	290
Civilian/Dependents Served	3740	3740	3740	3740
Population Served, Total	4030	4030	4030	4030

IV. Personnel Summary.

No direct military or civilian personnel are assigned to this activity group.

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

Activity Group: Command and Administration
Budget Activity: 7 - Central Supply and Maintenance
Claimant: Assistant for Administration to the Under Secretary of the Navy

I. Description of Operations Financed.

Resources within this Activity Group provide staff support for the development of Department of the Navy acquisition policies and programs; to execute acquisition streamlining initiatives; to promote competition in procurement and production; to support the establishment of and to implement policies and directives for reliability, maintainability, productivity, and quality for naval development and procurement; and to evaluate these Department of the Navy acquisition policies and programs. The major programs are as follows:

Navy Overhead Should Cost Program - This program was directed by the Deputy Secretary of Defense to review costs related to acquisition of major systems. The primary goal of the review is to identify and challenge uneconomical and inefficient practices in the contractor's management and control of overhead costs.

Navy Competition Program - This is an ongoing program to increase competition by reducing the number and value of noncompetitive contracts, identifying and removing barriers to full and open competition, and emphasizing competition in areas such as acquisition training and research.

Acquisition Streamlining - The purpose of this program is to eliminate non-cost effective contract requirements, to improve the acquisition process and to incorporate the use of commercial standards. Included in the work funded will be an effort on the part of nonpartisan, industrial societies and committees to resolve technical problems

Reliability, Maintainability and Quality Assurance (RM&QA) Initiatives - These are Secretary of the Navy support issues which focus on Improved Fleet Readiness by supporting technical investigations to solve design and manufacturing engineering problems that plague Navy Acquisition Programs.

Activity Group: Command and Administration (Continued)
 Claimant: Assistant for Administration to the Under Secretary of the Navy

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	FY 1989	FY 1990	FY 1991
	Actual	Amended Pres. Budget	Appro- priation	Current Estimate
Secretary of the Navy Procurement Initiatives	8,430	8,761	8,680	8,680
Total	8,430	8,761	9,899	10,356

Activity Group: Command and Administration (Continued)
 Claimant: Assistant for Administration to the Under Secretary of the Navy

B. Reconciliation of Increases and Decreases

1. FY 1989 Current Estimate		\$8,680
2. Pricing Adjustments		295
A. Other Pricing Adjustments	(295)	
3. Program Increases		924
A. Other Program Growth in FY 1990	(924)	
1) Increase to allow for training of Navy and Marine Corps personnel to achieve a better understanding of how to remove barriers to procurement competition.	38	
2) Acquisition Streamlining specifications improvement documents to be increased by 17 documents over prior fiscal year.	596	
3) Increase to support the implementation of the Enhanced Design Engineering training material and courses developed in FY 1988 and FY 1989.	290	
4. FY 1990 President's Budget Request		\$9,899
5. Pricing Adjustments		297
A. Other Pricing Adjustments	(297)	

Activity Group: Command and Administration (Continued)
Claimant: Assistant For Administration to the Under Secretary of the Navy

B. Reconciliation of Increases and Decreases (Continued).

160

6. Program Increases

(160)

A. Other Program Growth in FY 1991

- 1) Increase for continuance of Enhanced Design
Engineering training.

160

\$10,356

7. FY 1991 President's Budget Request

7 0673

Activity Group: Command and Administration (Continued)
 Claimant: Assistant for Administration to the Under Secretary of the Navy

III. Performance Criteria

The Procurement Support Office supports comprehensive, centrally-managed efforts to lower Navy acquisition costs by significantly increased efforts to identify and correct inefficient and not cost-effective acquisition management practices. There are program managers and support staff as well as four major initiatives funded under this Activity Group.

A. Program Management and Support Staff

	FY 1988	FY 1989	FY 1990	FY 1991
	-0-	-0-	-0-	-0-

Approximately 112 civilians and 27 military personnel manage the following major program initiatives in addition to performing reviews of contracts and processing Navy contracts: contracting plans, pre and post business clearances justifications and contractor support service approvals and federal acquisition regulation deviation requests. In FY 1988, resources transferred to Budget Activity 9.

B. Navy Overhead Should Cost Program:

	FY 1988	FY 1989	FY 1990	FY 1991
	105	203	160	165

This initiative provides in-depth review of contractor's management and control of overhead cost. This comprehensive effort is critical considering that overhead costs represent the major portion of the total price of all defense contracts. These studies will be performed entirely by Navy civilian and military personnel specifically assigned on a one time tasking from other full time duty.

C. Navy Competition Program:

	FY 1988	FY 1989	FY 1990	FY 1991
	427	446	500	500

This initiative reduces cost of Navy acquisitions by: 1) eliminating barriers to full and open competition; 2) analyzing the Navy contract competition performance by industry and weapons system; and 3) providing training for managers on the "when" and "how" to introduce competition. In accomplishing these objectives, the Competition Advocate relies to the maximum extent possible on the various levels of expertise within the Navy and the Department of Defense. However, in the areas of market behavior, industry analysis and economic modeling, the required level of expertise resides primarily in the commercial sector. Effort from outside Navy is primarily obtained through the Logistics Management Institute.

Activity Group: Command and Administration (Continued)
 Claimant: Assistant for Administration to the Under Secretary of the Navy

D. Acquisition Streamlining:

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
	5,280	4,804	5,509	5,659
Acquisition Streamlining provides simplified and updated acquisition of documents and procedures to reduce the time and cost required to obtain quality weapons systems, facilities and equipment.				
Performance Efforts, (\$000)	3,640	3,364	3,859	4,009
Specification Improvement, numbers of documents:	<u>130</u>	<u>115</u>	<u>132</u>	<u>137</u>
-General Specifications	5	5	6	6
-Federal/Military Specifications	65	60	69	72
-Federal/Military Standards	18	18	21	22
-Military Handbooks	2	2	2	2
-Design Drawings	40	30	34	35

Specification Improvement provides specification documents that are current and technically correct. Specification documents are cited in contract documents and form the basis for contractual performance.

Acquisition Improvement, (\$000)	1,640	1,440	1,650	1,650
-Engineering/Technical Reviews	20	15	20	20
-Streamline Training (classes)	80	80	80	80
-Value Engineering Training	40	40	45	45

Acquisition Improvement provides in-depth analysis to ensure that contract documents are tailored to the operational requirement and not overstated; identifies barriers to acquisition improvement; and supports training of the acquisition workforce.

Activity Group: Command and Administration (Continued)
 Claimant: Assistant for Administration to the Under Secretary of the Navy

E. Navy Reliability, Maintainability and Quality Assurance (RM&QA)

<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>	<u>FY 1991</u>
2,661	3,284	3,730	4,032

The objective of this initiative is to decrease acquisition costs, reduce weapon system support costs, and increase levels of reliability and maintainability of equipment and products. The implementation of this initiative requires close liaison and the cooperation of industry in raising the quality of products manufactured for the Navy. This program entails technical investigations into solutions to design and manufacturing engineering problems that plague Navy acquisition programs. Similar RM&QA initiatives directed to designing quality into Naval systems have resulted in improving fleet readiness from an estimated 30% in ~ 1975 to an estimated 75% in FY 1985. In FY 1988 the Enhanced Design Engineering for Quality program will provide design oversight for critical Navy procurement programs. Initial contracted support will provide immediate design review oversight while also training Navy engineers and managers in design disciplines, including management procedures and the design review process.

Specific Performance Efforts-

- Providing extensive basic technical support essential to accomplishment of the Navy RM&QA mission.
- Development of significant RM&QA deliverable documents establishing DOD and DON policy for areas such as:
 - Transition from Development to Production; Best Practices Manual to give industry proven guidelines for manufacturing excellence; and Documents to give design guidelines for specific areas such as power supplies and special electric circuits.

IV. Personnel Summary:

NONE

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

Activity Group: Field Operations
Budget Activity: 7-Central Supply and Maintenance
Claimant: Assistant for Administration to the Under Secretary of the Navy

I. Description of Operations Financed.

The Naval Center for Cost Analysis is a field activity supporting the Assistant Secretary of the Navy for Financial Management in his role as the Department of the Navy policy official for Cost Analysis. The Center's mission is to ensure the preparation of credible cost estimates of the resources required to develop, procure military systems and forces in support of planning, programming, budgeting and acquisition management. The funds requested represent the cost of compensation for the civilian professional and clerical work force; the cost of providing administrative support such as travel, office supplies and equipment for military and civilian personnel assigned to the Center; the cost of engineering cost analysis provided by Naval Laboratories and the Naval Avionics Center; and the cost of Contracted Advisory Assistance Services (CAAS) and Contracted Support Services (CSS) in support of special cost analyses and studies such as Warranty Cost Benefit Analysis.

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	Amended Pres. Budget	FY 1989 Appro- priation	Current Estimate	FY 1990 Budget Request	FY 1991 Budget Request
Naval Center for Cost Analysis	2,514	3,036	3,008	3,032	2,812	2,796
	-----	-----	-----	-----	-----	-----
TOTAL	2,514	3,036	3,008	3,032	2,812	2,796

Activity Group: Field Operations (Continued)
 Claimant: Assistant for Administration to the Under Secretary of the Navy

III. Performance Criteria.

Approximately thirty-five (35) system Independent Cost Estimates (ICEs) are performed each year in support of Department of Defense Cost Analysis Improvement Group (CAIG), Joint Resources Management Board (JRMBS), or the Navy Program Decision Meeting (NPDM), and the Major Automated Information Systems Review Council (MAISRC).

Cost assessments are performed on Chief of Naval Operations (CNO) Executive Board major and minor programs in support of CNO Executive Board (CEB), Acquisition Review Board (ARB), Ships Characteristics Improvement Board (SCIB) and other management decision forums. Approximately 138 cost assessments were performed in FY 1988.

Major programs are studied to assess the effects of competition on costs.

Cost study programs focus on several major areas: data bases, new methodology, and acquisition policy, etc.

IV. Personnel Summary

	FY 1988 Actual	FY 1989 Budget Request	FY 1990 Budget Request	FY 1991 Budget Request
<u>End Strength</u>				
A. <u>Military</u>	8	9	9	9
Officer	8	9	9	9
B. <u>Civilian</u>	32	37	37	37
USDH	32	37	37	37

Activity Group: Field Operations (Continued)
 Claimant: Assistant for Administration to the Under Secretary of the Navy

B. Reconciliation of Increases and Decreases.

1. FY 1989 Current Estimate		\$3,032
2. Pricing Adjustments		80
A. Annualization of FY 1989 Direct Pay Raise	(80)	
1) Classified	20	
B. FY 1990 Civilian Pay Raise	(31)	
1) Classified	31	
C. Other Pricing	(29)	
3. Program Decreases		-300
A. Other Program Decreases in FY 1989	(-300)	
1) Decreases in cost research effort as a result of transfer of funds to NDW for rent of office space at Crystal Gateway and general budget constraints.	-300	
4. FY 1990 Budget Request		\$2,812
5. Pricing Adjustments		79
A. Annualization to FY 1990 Direct Pay Raises	(11)	
1) Classified	11	
B. FY 1991 Direct Pay Raises	(48)	
1) Classified	48	
C. Other Pricing Adjustments	(20)	
6. Program Increases		19
A. Other Program Growth in FY 1991		
1) One additional paid day.		
7. Program Decreases		-114
A. Other Program Decreases in FY 1991	(-114)	
1) Miscellaneous program reductions in printing and minor contractual requirements due to funding constraints.	-114	
8. FY 1991 President's Budget Request		\$2,798

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

Activity Group: Industrial Fund and Stock Fund Support
Budget Activity: 7-Central Supply and Maintenance
Claimant: CWO (OP-82)

I. Description of Operations Financed.

This activity group includes funding to reimburse DOD Industrial Fund and Stock Fund costs and losses not recovered through customer rates.

DOD Industrial Funds and Stock Funds operate under a rate stabilization policy established by the Secretary of Defense. Financial resources requested in various appropriated fund customer programs reflect the impact of approved stabilized rates. Changes to established rates are disruptive to both customer program and Industrial Fund and Stock Fund operations. The Department executes its programs at established stabilized rates with additional funds provided to (passthroughs) or returned from (refunds/transfers) the Industrial Funds and Stock Funds, as appropriate.

In accordance with Congressional policy, industrial fund passthroughs are budgeted in O&M,N to cover prior year losses incurred by the fund. In FY 1989, \$397.9 million is requested to partially recover actual losses incurred by the Navy Industrial Fund (NIF) through FY 1987. Additionally, a passthrough of \$74.4 million is requested to cover the additional 2.1% civilian personnel pay raise which was not included in NIF rates in FY 1989.

Passthroughs of \$450.0 million and \$638.9 million are requested in FY 1990 and FY 1991, respectively, to cover additional anticipated NIF losses. The need for the requested funding is largely the result of two factors. First, the level of efficiency originally projected to be achieved by industrial activities has not yet been attained. The second factor relates to \$1.5 billion in NIF reductions made since FY 1986 primarily based on the profits anticipated to result from competition in ocean shipping. MSC shipping is now essentially sole source and anticipated profits have not appeared. The cash infusion is, therefore, necessary to bring the NIF to almost a zero profit/loss position by the end of FY 1991.

Activity Group: Industrial Fund and Stock Fund Support (continued)
 Claimant: CNO (OP-82)

II. Financial Summary (Dollars in Thousands).

A. Sub-Activity Group Breakout.

	FY 1988	FY 1989		FY 1990	FY 1991
	<u>FY 1988</u>	<u>Amended</u>	<u>Appro-</u>	<u>Budget</u>	<u>Budget</u>
	<u>Actual</u>	<u>Budget</u>	<u>priation</u>	<u>Request</u>	<u>Request</u>
				<u>Current</u>	
				<u>Estimate</u>	
Industrial Fund					
Support	-0-	397,900	397,900	472,315	638,935
Total, IF/SF	-0-	397,900	397,900	472,315	638,935
Support					

Activity Group: Industrial Fund and Stock Fund Support (continued)
 Claimant: CNO (OP-82)

B. Reconciliation of Increases and Decreases.			
1.	FY 1989 Current Estimate		472,315
2.	Pricing Adjustments		
A.	Industrial Fund Rates		
1)	Industrial Fund Passthroughs	(-22,315) -22,315	-22,315
3.	FY 1990 President's Budget Request		450,000
4.	Pricing Adjustments		
A.	Industrial Fund Rates		188,935
1)	Industrial Fund Passthroughs	(188,935) 188,935	
5.	FY 1991 President's Budget Request		638,935

III. Performance Criteria:

Not Applicable

IV. Personnel Summary:

Not Applicable