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DEPARTMENT OF THE NAVY
JUSTIFICATION OF ESTIMATES
FOR FISCAL YEAR 1985

SUBMITTED TO CONGRESS FEBRUARY 1984

PROCUREMENT

WEAPONS PROCUREMENT, NAVY

DEPARTMENT OF THE NAVY
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JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1985 AND 1986

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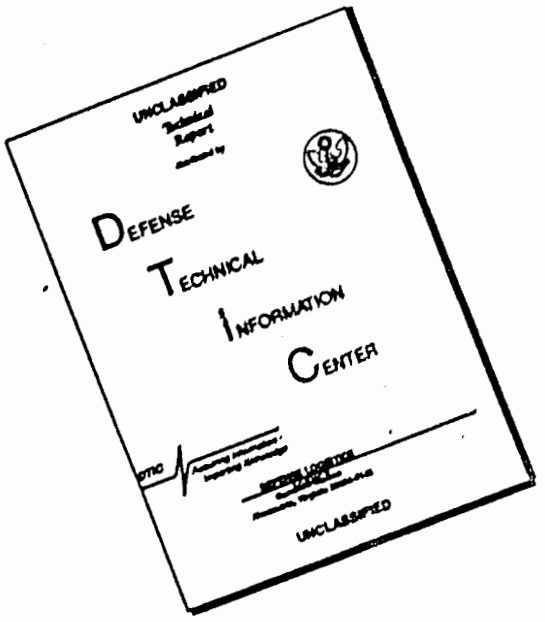

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WEAPONS PROCUREMENT, NAVY

[(INCLUDING TRANSFER OF FUNDS)]

For construction, procurement, production, modification, and modernization of missiles, torpedoes, other weapons, and related support equipment including spare parts, and accessories therefor; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title [as required by section 355, Revised Statutes, as amended] ; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway [, as follows: For missile programs, $2,962,600,000; for the MK-48 torpedo program $124,600,000; for the MK-46 torpedo program, $212,900,000; for the MK-60 captor mine program $73,900,000; for the MK-30 mobile target program, $17,600,000; for the MK-38 mini mobile target program, $2,000,000; for the antisubmarine rocket (ASROC) program $17,300,000; for modification of torpedoes, $111,800,000; for the topedo support equipment program, $72,100,000; for the MK-15 close-in weapons system program, $120,400,000; for the MK-45 gun mount/MK-6 ammunition hoist, $16,100,000; for the MK-75 gun mount program, $11,100,000; for the MK-19 machine gun program, $900,000; for the 25mm gun mount, $700,000; for the 9 mm handgun, $500,000; for small arms and weapons, $2,500,000; for the modification of guns and gun mounts, $13,600,000; for the guns and gun mounts support equipment program $9,300,000; in all: $3,725,332,000, and in addition, $77,800,000, to be derived by transfer from "Weapons Procurement, Navy 1983/1985"] $4,650,860,000, to remain available until September 30, [1986: Provided, That within the total amount appropriated, the subdivisions within this account shall be reduced by $44,568,000, as follows: $8,568,000, for spares and repair parts and $36,000,000 for revised economic assumptions] 1987. (10 U.S.C. 5012, 5031, 7201; Department of Defense Appropriation Act, 1984; additional authorizing legislation to be proposed.)

Weapons Procurement, Navy
Program and Financing (in Thousands of dollars)

FYP SUMMARY

Identification code 17-1307	Budget Program (amounts for actions programed)			Obligations		
	1983 actual	1984 est	1985 est	1983 actual	1984 est	1985 est
Program by activities						
Direct Program						
1. Ballistic missiles	887,400	378,400	378,800	756,773	858,187	433,138
2. Other missiles	2,023,800	2,383,878	3,228,880	1,717,881	2,453,514	2,781,510
3. Torpedoes and related equipment	508,500	650,800	798,000	651,885	618,834	891,170
4. Other weapons	138,700	156,500	243,100	137,131	148,730	239,824
Total direct program	3,358,200	3,789,378	4,850,880	3,183,730	3,788,383	4,373,740
Reimburseable program	26,523	25,000	25,000	13,707	88,739	8,000
10 0001 Total Obligations	3,384,723	3,764,378	4,875,880	3,177,437	3,833,124	4,380,740
Financing:						
Offsetting collections from						
11 0001 Federal funds(-)	-8,278	-8,000	-8,000	-8,700	-8,000	-8,000
13 0001 Trust funds(-)	-17,183	-18,000	-16,000	-20,543	-18,000	-16,000
14 0001 Non-federal sources(-)	-64			-48		
17 0001 Recovery of prior year obligations(-)				-23,888		
Unobligated balance available, SOY						
21 4002 For completion of prior year budget pla				-1,327,430	-1,520,428	-1,481,881
21 4003 Available to finance new budget plans		-87,800			-87,800	
21 4007 Reprograming from or to prior year budget	-40,908					
22 4001 Net unobligated balance transferred	-10,800	10,000		-10,800	10,000	
Unobligated balance available, EOY						
24 4002 For completion of prior year budget pla				1,520,428	1,481,881	1,787,001
24 4003 Available to finance subsequent year bu	87,800			87,800		
25 0001 Reappropriation	81,708	77,800		81,708	77,800	
38 0001 Budget authority	3,448,000	3,788,578	4,850,880	3,448,000	3,788,578	4,850,880
Budget authority:						
40 0001 Appropriation	3,581,700	3,726,332	4,850,880	3,581,700	3,723,332	4,850,880
40 0002 Reduction pursuant to P L 97-377	-20,100			-20,100		
41 0001 Transferred to other accounts(-)	-85,800	-33,533		-85,800	-33,533	
43 0001 Appropriation (adjusted)	3,448,000	3,881,778	4,850,880	3,448,000	3,891,778	4,850,880
00 0001 Reappropriation		77,800			77,800	
Relation of obligations to outlays						
71 0001 Obligations incurred, net				3,148,188	3,828,124	4,365,740
72 4001 Obligated balance, start of year				3,244,314	3,570,258	4,210,383
74 4001 Obligated balance, end of year				-3,370,288	-4,210,383	-5,034,833
77 0001 Adjustments in expired accounts				13,833		
78 0001 Adjustments in unexpired accounts				-23,888		
90 0001 Outlays				2,811,877	3,188,000	3,531,200

Weapons Procurement, Navy
Object Classification (in Thousands of dollars)

Identification code 17-1507--------		1983 actual	1984 est.	1985 est.
	Direct obligations:			
12.2001	Transportation of things	1,898	1,962	1,962
12.5003	Contracts	15,770	19,168	19,168
12.5004	Other	50,485	57,498	57,498
12.6001	Supplies and materials	159,089	378,552	65,322
13.1001	Equipment	2,936,728	3,331,207	4,211,792
19.9001	Total direct obligations	3,163,750	3,788,385	4,375,740
	Reimbursable Obligations:			
22.6001	Supplies and materials	252	251	251
23.1001	Equipment	13,455	86,488	4,749
29.6001	Total reimbursable obligations	13,707	86,739	6,000
99.9001	Total Obligations	3,177,457	3,853,124	4,380,740

Weapons Procurement, Navy
Program and Financing (in Thousands of dollars)

FISCAL YEAR 1981

Identification code 17-1507--------	Budget Plan (amounts for actions programed)			Obligations		
	1983 actual	1984 est	1985 est	1983 actual	1984 est	1985 est.
Program by activities						
Direct Program						
1 Ballistic missiles				98,744		
2 Other missiles				149,182		
3. Torpedoes and related equipment				14,443		
4 Other weapons				8,379		
Total direct program				288,728		
Reimbursable program				139		
10 0001 Total Obligations				288,867		
Financing						
Offsetting collections from						
13 0001 Adjustment to prior year trust fund orde				442		
17 0001 Recoveries of prior year obligations(-)				-671		
Unobligated balance available, SOY						
21 4002 For completion of prior year budget plans				-309,548		
21 4007 Reprograming from or to prior year budget pl	-40,908					
22 4001 Net unobligated balance transferred	-10,800			-10,800		
25 0001 Unobligated balance lapsing	51,708			51,708		
39 0001 Budget authority						

Weapons Procurement, Navy
Program and Financing (in Thousands of dollars)

FISCAL YEAR 1982

Identification code 17-1507	Budget Plan (amounts for actions programed)			Obligations		
	1983 actual	1984 est	1985 est	1983 actual	1984 est	1985 est
Program by activities						
Direct Program						
1. Ballistic missiles				131,125	156,645	
2 Other missiles				361,173	196,647	
3 Torpedoes and related equipment				115,965	14,306	
4 Other weapons				11,149	6,467	
Total direct program				619,432	374,065	
Reimbursable program				10,225	40,549	
10 0001 Total Obligations				629,657	414,636	
Financing						
Offsetting collections from						
11 0001 Adjustment to prior year federal fund or				-576		
13 0001 Adjustment to prior year trust fund orde				-3,602		
14 0001 Adjustment to non-federal sources				-15		
17 0001 Recoveries of prior year obligations(-)				-23,197		
Unobligated balance available, SOY						
21 4002 For completion of prior year budget plans				+1,017,884	-414,636	
Unobligated balance available, EOY						
24 4002 For completion of prior year budget plans				414,636		
39 0001 Budget authority						

Weapons Procurement, Navy
Program and Financing (in Thousands of dollars)

FISCAL YEAR 1983

Identification code 17-1507--		Budget Plan (amounts for actions programed)			Obligations		
		1983 actual	1984 est	1985 est	1983 actual	1984 est	1985 est
	Program by activities						
	Direct Program						
	1 Ballistic missiles	807,400			526,904	59,742	78,754
	2 Other missiles	2,023,800			1,207,626	579,994	235,880
	3 Torpedoes and related equipment	508,600			421,437	22,456	64,805
	4 Other weapons	158,700			117,623	21,807	19,470
	Total direct program	3,358,200			2,275,590	683,801	398,608
	Reimbursable program	26,523			3,343	22,590	800
10 0001	Total Obligations	3,384,723			2,278,933	708,391	399,399
	Financing						
	Offsetting collections from						
11 0001	Federal funds(-)	-9,276			-9,278		
13 0001	Trust funds(-)	-17,163			-17,163		
14 0001	Non-federal sources(-)	-64			-64		
	Unobligated balance available, SOY						
21 4002	For completion of prior year budget plans					-1,105,780	-399,369
21 4003	Available to finance new budget plans		-87,800			-87,800	
22 4001	Net unobligated balance transferred		87,800			87,800	
	Unobligated balance available, EOY						
24 4002	For completion of prior year budget plans				1,105,780	399,369	
24 4003	Available to finance subsequent year budge	87,800			87,800		
39 0001	Budget authority	3,448,000			3,448,000		
	Budget authority						
40 0001	Appropriation	3,561,700			3,561,700		
40 0002	Reduction pursuant to P.L. 97-377	-20,100			-20,100		
41 0001	Transferred to other accounts(-)	-93,600			-93,600		
43 0001	Appropriation (adjusted)	3,448,000			3,448,000		

Weapons Procurement, Navy
Program and Financing (in Thousands of dollars)

FISCAL YEAR 1984

Identification code 17-1507	Budget Plan (amounts for actions programed)			Obligations		
	1983 actual	1984 est	1985 est	1983 actual	1984 est	1985 est
Program by activities						
Direct Program						
1. Ballistic missiles		578,400			442,800	89,830
2. Other missiles		2,383,879			1,666,673	379,548
3 Torpedoes and related equipment		650,800			460,186	108,037
4. Other weapons		156,500			118,656	26,887
Total direct program		3,769,579			2,728,467	613,612
Reimbursable program		26,000			3,600	810
10 0001 Total Obligations		3,784,579			2,732,097	614,722
Financing						
Offsetting collections from						
11 0001 Federal funds(-)		-8,000			-8,000	
13 0001 Trust funds(-)		-16,000			-16,000	
Unobligated balance available, SOY						
21 4002 For completion of prior year budget plans						-1,062,482
22 4001 Net unobligated balance transferred		-77,800			-77,800	
Unobligated balance available, EOY						
24 4002 For completion of prior year budget plans					1,062,482	447,760
26 0001 Reappropriation		77,800			77,800	
36 0001 Budget authority		3,760,579			3,760,579	
Budget authority						
40 0001 Appropriation		3,725,332			3,725,332	
41 0001 Transferred to other accounts(-)		-33,553			-33,553	
43 0001 Appropriation (adjusted)		3,691,779			3,691,779	
50 0001 Reappropriation		77,800			77,800	

Weapons Procurement, Navy
Program and Financing (in Thousands of dollars)

FISCAL YEAR 1985

Identification code 17-1507		Budget Plan (amounts for actions programed)			Obligations		
		1983 actual	1984 est	1985 est	1983 actual	1984 est	1985 est
	Program by activities						
	Direct Program						
	1 Ballistic missiles			379,900			274,752
	2 Other missiles			3,228,860			2,175,992
	3 Torpedoes and related equipment			788,000			718,529
	4 Other weapons			243,100			193,737
	Total direct program			4,850,860			3,383,010
	Reimbursable program			25,000			3,800
10 0001	Total Obligations			4,875,860			3,386,619
	Financing						
	Offsetting collections from						
11 0001	Federal funds(-)			-9,000			-8,000
13 0001	Trust funds(-)			-19,000			-19,000
	Unobligated balance available, EOY						
24 4002	For completion of prior year budget plans						1,308,241
40 0001	Budget Authority (Appropriation)			4,850,860			4,850,860

Appropriation Introduction
(In Thousands of Dollars)

	FY 1985 Estimate	FY 1986 Estimate
Appropriation	$4,650,860	$6,448,516
Total Direct Obligations	4,375,740	-
Total Direct Budget Plan	4,650,860	6,448,516

The Weapons Procurement, Navy appropriation finances the procurement of ballistic, strategic and tactical missiles, torpedoes, mines, guns and support equipment for Naval, Coast Guard and Marine Aviation forces. Support equipment includes: equipment for modification of in-service missiles, torpedoes, mines, guns, and gun mounts; aerial and underwater targets used in training exercises and evaluation; hardware for Navy Navigation and Defense Meteorological satellite programs; spare parts; ground support and training equipment; and industrial facilities and tools required for the production and maintenance of missiles, torpedoes, mines and guns.

Fiscal Year 1985 and 1986 Highlights

The budget programs for the Weapons Procurement, Navy appropriation total $4,650.9M in FY 1985 and $6,448.5M in FY 1986. Significant features of these requests are:

(a) A TRIDENT I (C-4) missile request of $163.8M in FY 1985 and $109.2M in FY 1986 for production support through final missile delivery in FY 1986 and continuing requirements for reentry systems, instrumentation, and ongoing support. Initial procurement funding for the follow-on TRIDENT II (D-5) missile of $138.5M in FY 1985 and $478.3M in FY 1986 plus advance procurement funding of $24.4M in FY 1985 and $279.7M in FY 1986 to support future TRIDENT II missile procurements.

(b) $53.1M in FY 1985 and $66.1M in FY 1986 for the POSEIDON program, spares and repair parts, ballistic missile modifications, support equipment and facilities, and the Navigational Satellite program.

(c) A TOMAHAWK Cruise Missile request of $532.1M for 180 missiles in FY 1985 and $516.0M for 180 missiles in FY 1986 plus $28.0M and $33.0M for advance procurement to support the FY 1986 and FY 1987 procurements, respectively.

(d) Other Tactical Missile procurements including a FY 1985 request of $258.0M for 1,250 SPARROWs, $68.6M for 1,000 SIDEWINDERs, $407.0M for 400 PHOENIXs, $327.1M for 354 HARPOONs, $309.7M for 803 HARMs, $110.6M for 600 LASER MAVERICKs, $25.2M for 438 HELLFIREs, $18.0M for 30 RAMs (initial production), $29.7M for 190 Imaging Infrared (IIR) MAVERICKs (initial production), and $706.6M for 1,380 STANDARDs; and a FY 1986 request which accelerates the Tactical Missile procurement over the FY 1985 level by procuring 1,692 SPARROWs for $340.8M, 1,220 SIDEWINDERS for $92.6M, 567 PHOENIXs for $470.0M, 360 HARPOONs for $336.0M, 779 HARMs for $258.5M, 1,500 LASER MAVERICKs for $177.9M, 1,304 HELLFIREs for $56.0M, 200 IIR MAVERICKs for $26.0M, 235 RAMs for $34.6M, 2,430 STANDARDs for $1,184.1M, and 151 SIDEARMs (initial production) for $13.1M.

(e) $371.5M in FY 1985 and $664.9M in FY 1986 for Aerial Targets, Fleet Satellite Communications, Defense Meteorological Satellite Program, spares and repair parts, missile modifications, and other items required to support the tactical missile procurements.

(f) An Anti-Submarine Warfare program consisting of a request of $256.0M for 1,565 MK-46 Torpedoes in FY 1985 and $313.2M for 1,521 MK-46 Torpedoes in FY 1986, a request of $127.7M for 144 MK-48 Torpedoes in FY 1985 and $155.5M for 144 MK-48 Torpedoes in FY 1986, a request of $21.3M for 6 MK-30 Mobile Targets in FY 1985 and $18.7M for 6 in FY 1986, and a MK-60 CAPTOR mine procurement request of $128.5M for 300 mines in FY 1985; and MK-38 Mini Mobile Targets, ASROCs, initial modification for MK-67 Mobile Mine and related torpedo and mine modification programs, spares and repair parts, and torpedo support totaling $265.5M in FY 1985 and $524.8M in FY 1986.

(g) $243.1M in FY 1985 and $253.0M in FY 1986 for guns, gun mounts and related support equipment which primarily funds the Close-In-Weapons Systems procurement of 51 systems in FY 1985 for $163.9M and 43 in FY 1986 for $144.9M.

Financing

The FY 1985 plan of $4,650.9M and the FY 1986 plan of $6,448.5M for this appropriation are to be financed by new obligational authority.

Summary of Requirements
(In Thousands of Dollars)

	FY 1983 Actual	FY 1984 Estimate	FY 1985 Estimate
Ballistic Missiles	$ 667,400	$ 578,400	$ 379,800
Other Missiles	2,023,600	2,363,879	3,228,960
Torpedoes and Related Equipment	505,500	650,800	799,000
Other Weapons	158,700	156,500	243,100
TOTAL Direct Program	$3,350,200	$3,769,579	$4,650,860
Reimburseble Program	26,523	25,000	25,000
TOTAL Program Requirements	$3,384,723	$3,794,579	$4,675,860
Less: Portion of program to be obligated in subsequent fiscal year	1,105,790	1,062,482	1,309,241
Plus: Obligations incurred against prior year program funds	898,524	1,121,027	1,014,121
TOTAL Obligations	$3,177,457	$3,853,124	$4,380,740

Summary of Requirements
(In Thousands of Dollars)

	FY 1986 Estimate
1. Ballistic Missiles	$ 933,300
2. Other Missiles	4,241,816
3. Torpedoes and Related Equipment	1,020,400
4. Other Weapons	253,000
TOTAL Direct Program	$6,448,516

BUDGET ACTIVITY 1: BALLISTIC MISSILES

($ in thousands)
FY 1986 Estimate - $933,300
FY 1985 Estimate - $379,800
FY 1984 Estimate - $578,400
FY 1983 Actuals - $667,400

Purpose and Scope of Work: These funds provide for the procurement of fleet ballistic missiles, ancillary checkout and test equipment, missile modifications, and support equipment and facilities required to outfit and support the submarines assigned to the seabased strategic deterrent forces.

Justification of Funds: Of the $379.8 million requested in FY 1985, $332.2 million is for ballistic missiles, $25.2 million is for modification of missiles, and $22.4 million is for support equipment and facilities.

Of the $933.3 million requested in FY 1986, $872.7 million is for ballistic missiles, $37.7 million is for modification of missiles, and $22.9 million is for support equipment and facilities.

BALLISTIC MISSILES

($ in thousands)
FY 1986 Estimate - $872,700
FY 1985 Estimate - $332,200
FY 1984 Estimate - $550,900
FY 1983 Actuals - $643,400

Of the $332.2 million requested for ballistic missiles in FY 1985, $5.5 million is for POSEIDON, $163.8 million is for TRIDENT I, $138.5 million is for TRIDENT II, and $24.4 million is for TRIDENT II Advance Procurement.

Of the $872.7 million requested for ballistic missiles in FY 1986, $5.5 million is for POSEIDON, $109.2 million is for TRIDENT I, $478.3 million is for TRIDENT II, and $279.7 million is for TRIDENT II Advance Procurement.

POSEIDON Missile

	($ in thousands) FY 1985 QTY	Amount	FY 1986 QTY	Amount
Procurement Cost	-	$5,500	-	$5,500

To maintain the effectiveness of the Fleet Ballistic Missile System against postulated enemy defensive capabilities of the next decade, the Navy was directed in FY 1966 to develop and deploy the POSEIDON weapon system. The principal advantage of the POSEIDON over its predecessor, the POLARIS, is its adaptability to overcome a broad spectrum of defenses, as they may materialize from Soviet Anti-Submarine Warfare (ASW) and Anti-Ballistic Missile (ABM) development programs. POSEIDON missiles are no longer being procured; however, funding is required to support missile tests which will continue throughout the operational lives of the weapons. This testing is necessary in order to continue to evaluate the readiness of deployed missiles in accordance with Joint Chiefs of Staff test criteria.

The POSEIDON procurement requests of $5.5 million in FY 1985 and $5.5 million in FY 1986 are for special purpose flight test instrumentation and reentry system components for use in the C-3 flight test program, and for ongoing weapon system support. Failure to provide the funding requested would force curtailment of the Demonstration and Shakedown Operations (DASO)/Follow-on Operational Test (FOT) program, thereby weakening significantly the ability to determine with confidence the flight reliability of the deployed POSEIDON force.

TRIDENT 1 Missile

	($ in thousands) FY 1985 QTY	Amount	FY 1986 QTY	Amount
Procurement Cost	-	$163,800	-	$109,200

The TRIDENT mission is to provide an undersea missile system in order to ensure that the U.S. continues to maintain a credible deterrent independent of forseeable threats in the 1990's and beyond. To accomplish this mission, the TRIDENT 1 missile was developed to support two separate systems. The TRIDENT system is comprised of a Continental United States based nuclear powered submarine equipped with long range TRIDENT I strategic missiles and associated direct support shore facilities. The TRIDENT I Backfit system provides TRIDENT 1 missiles for backfit into existing POSEIDON submarines which gives these submarines a greater range of patrol in order to insure their survivability in the event of unforseeable enemy breakthroughs in ASW capabilities.

Within the current TRIDENT I missile program of 570 missiles procured between FY 1977 and FY 1984, missile production deliveries have been scheduled at quantities necessary to maintain quality and a smooth production rate and to provide for submarine requirements, replacement of missiles returned from the fleet for repair and surveillance, and expenditures during demonstration firings and operational tests. Based on current program guidance, TRIDENT I missile procurements will support the ultimate deployment of eight TRIDENT submarines, twelve Backfit submarines and additional missiles to continue the Fleet Return and Evaluation Program (FREP) and DASO/FOT programs. Although FY 1984 marked the final year of TRIDENT I missile procurement, funding is required in FY 1985 and subsequent years to support missile tests which will continue throughout the operational lives of the weapons. This testing is essential in order to continue to evaluate the readiness of deployed missiles in accordance with Joint Chiefs of Staff test criteria.

The FY 1985 and FY 1986 TRIDENT I missile requests of $163.8 million and $109.2 million respectively will provide for the procurement of special purpose flight test instrumentation and reentry system components for use in the flight test program, and for on-going weapons system support. Failure to provide the funding requested would necessitate a further reduction to an already severely constrained DASO/FOT program and weaken significantly the ability to determine with confidence the flight reliability of the deployed TRIDENT I force.

TRIDENT II Missile

($ in thousands)

	FY 1985		FY 1986	
	QTY	Amount	QTY	Amount
Procurement Cost	-	$138,500	-	$478,300

The TRIDENT II missile will be carried on TRIDENT Fleet Ballistic Missile Submarines, ensuring that the United States will continue to maintain a highly survivable strategic deterrent for the 1990's and beyond. Deployment of the TRIDENT II missile will (1) enhance Fleet Ballistic Missile Submarine survivability by increasing Sea Launched Ballistic Missile range at full payload to the level permitted by the size of the TRIDENT submarine launch tube, thereby allowing mission capability to be achieved with a lesser number of submarines, (3) balance the Triad by adding efficient hard target kill capability to the Sea Launched Ballistic Missile, and (4) enhance essential equivalence with the Soviets in accordance with perceived needs to increase our warhead inventory, throw weight, and accuracy in the presence of increasing Soviet capabilities and force levels.

Funding in this line is required to support the procurement of an all new TRIDENT II missile, initial production of which commences in FY 1987 and to which the following key program milestones apply:

- TRIDENT II missile Initial Operating Capability (IOC) - December 1989
- First Performance Evaluation Missile (PEM) flight test - March 1989
- Strategic Weapons Facility, Atlantic (SWFLANT) missile processing capability - April 1988
- SWFLANT installation, test, checkout and equipment/facility integration beginning in FY 1987
- Equipment procurements in FY 1985 and FY 1986 based on leadtime away requirements.

In FY 1985 $138.5 million is requested for production planning and activation at SWFLANT located at Kings Bay, Georgia; for initial equipment outfitting of buildings at SWFLANT essential to establishing a TRIDENT II missile processing capability; MK-6 Guidance System tooling and test equipment at contractors' facilities; and procurement of MK-5 Reentry Body (REB) shells. The FY 1986 funding request of $478.3 million is for additional SWFLANT production planning, activation, and initial outfitting, for guidance system tooling and test equipment, and for MK-4 and MK-5 Reentry Systems.

TRIDENT II Missile Advance Procurement

($ in thousands)

	FY 1985 Amount	FY 1986 Amount
Advance Procurement Cost	$24,400	$279,700

Funding in this line item is required to support the advance procurement of various components of the TRIDENT II missile, guidance system, and reentry system which are required to support future TRIDENT II missile procurements. Total advance procurement requirements may be subdivided between traditional long-lead subcomponent requirements and procurements which must be accomplished in advance of the using end item to ensure production continuity. These latter production continuity procurements encompass a broad range of component materials which must be produced at minimum, uninterrupted rates on production lines as well as life-of-type or one-time quantity buys of materials or components required to support the total planned program. The quality and homogeneity obtained by these means are essential to assure the consistent reliability of the missile to be procured for the TRIDENT II program. The sum of production continuity quantities of these materials and those quantities procured for missiles fully funded in the procurement line item is determined by production rate and quality control considerations and forms the basis for cost estimates which are highly dependent on rate quantity.

The FY 1985 request of $24.4 million and the FY 1986 request of $279.7 million will provide for procurement of production continuity critical components required in the manufacture of MK-4 Reentry Systems and representing a continuation of like procurements carried out under the TRIDENT I program, for procurement of life-of-type and production continuity materials in support of MK-5 Reentry Systems production, and for procurement of long-lead and production continuity material and commodities in support of the TRIDENT II missile and MK-6 Guidance System production phase which commences in FY 1987. These funds are essential to achieving the December 1989 IOC for the TRIDENT II Strategic Weapons System.

UNCLASSIFIED

MODIFICATION OF MISSILES

($ in thousands)

FY 1986 Estimate - $37,700
FY 1985 Estimate - $25,200
FY 1984 Estimate - $ 9,600
FY 1983 Actuals - $ 7,500

Requirements for POSEIDON missile alterations (SPALTS) are determined only after thorough investigation has established the need for a change in system or equipment configuration, the total estimated cost and the impact of the proposed change have been defined, and the proposal has been subjected to severe screening to determine a positive advantage to the system. POSEIDON SPALTS are funded only when correction of a known deficiency is required, a component is no longer procureable in its original configuration, or it is necessary to accept a substitute part of an existing subassembly.

POSEIDON Modifications

($ in thousands)

	FY 1985 Amount	FY 1986 Amount
Procurement Cost	$25,200	$37,700

The FY 1985 and FY 1986 requests provide funding in support of the Alternate MK-3 Reentry Body Nose Cap Exchange SPALT, the Thrust Vector Control (TVC) Gas Generator SPALT, and First and Second Stage Motor Nozzle SPALTS. Failure to provide the funding requested would increase the potential risk of deterioration in POSEIDON weapon system performance reliability.

SUPPORT EQUIPMENT AND FACILITIES

($ in thousands)
FY 1986 Estimate - $22,900
FY 1985 Estimate - $22,400
FY 1984 Estimate - $17,900
FY 1983 Actuals - $16,500

The support equipment and facilities requests provide for the procurement of POSEIDON and TRIDENT I missile replenishment spares and repair parts, missile industrial facilities, and the launch and satellite hardware and associated support necessary to maintain the Navy Navigation Satellite System.

Spares and Repair Parts

($ in thousands)

	FY 1985 Amount	FY 1986 Amount
Procurement Cost	$3,800	$2,500

Missile spares and repair parts are required to maintain inventories of missiles and missile ground support equipment to ensure maximum readiness of the Fleet Ballistic Missile System. To meet this requirement, replenishment spares and repair parts are procured for POSEIDON and TRIDENT I Missiles.

Replenishment spare parts levels are determined by analysis of projected usage rates and available assets necessary to maintain the required inventories of components. The FY 1985 and FY 1986 requests include replenishment spares for POSEIDON AND TRIDENT I missiles.

Missile Industrial Facilities

($ in thousands)

	FY 1985 Amount	FY 1986 Amount
Procurement Cost	$4,000	$4,500

Funding for Missile Industrial Facilities provides for capital rehabilitation of civil works and equipment, equipment and civil works improvements, emergency repair and modification to production equipment and accessories at the Navy-owned Naval Industrial Reserve Ordnance Plant (NIROP) at Sunnyvale, California; for capital rehabilitation and civil works improvements at the NIROP at Bacchus, Utah; and for civil works improvements at Air Force Plant 78 near Brigham City, Utah.

Capital rehabilitation and improvement requirements in FY 1985 and FY 1986 include: Non-severable civil works additions and modifications to Navy and Air Force owned buildings; improvements to building equipments that are generated as a result of safety and security requirements; replacement and rehabilitation of aging plant equipment items; rehabilitation and environmental equipment to control the discharge of pollutants into the atmosphere; and fire protection equipment to support more efficient production and test operations.

Astronautics

($ in thousands)

	FY 1985 Amount	FY 1986 Amount
Procurement Cost	$14,600	$15,900

To maintain an adequate constellation of navigation satellities in orbit, the Weapons Procurement, Navy appropriation provides for the procurement of satellites, launch vehicles and sustaining support costs. The FY 1985 and FY 1986 budget requests provide funding for launch and satellite support to maintain the current operational constellation and for storage and testing of the existing OSCAR satellite inventory. The current schedule includes launching of the second NOVA Satellite in FY 1984 and the first DUAL OSCAR launch in FY 1985. Current requirements are based on maintaining SCOUT as the primary launch booster for the Navigation Satellite System.

Budgat Activity 2: Other Missiles

($ in Thousands)
FY 1986 Estimate - $ 4,241,816
FY 1985 Estimate - $ 3,228,950
FY 1984 Estimate - $ 2,383,879
FY 1983 Actual - $ 2,023,600

Purpose and Scope of Work

Funds budgeted under this activity finance the procurament, modification, and spare parts requirements for strategic and tactical guided missiles, and aerial targets. In addition, funds provida for waapons industrial facilities and for the support of satellites, launches, and associated equipment for the Fleet Satellite Communication Systam.

Guided missiles are procured for operational inventory requirements to meet combat sustainability objactives, combat usage, quality assurance testing and training purposes. Aerial targets are required to support training programs and to permit evaluation of missile performance. Procurement funds provide for (1) the components which comprisa the and-itams, such as guidance, control, motors, warheads, and fuzes, (2) effort and hardware associated with the production and assembly of thesa items, such as production enginaering, production proofing, tools and test equipment and (3) special handling and test equipment, training materials and othar specialized itams requirad for operational Flaat support of tha item.

Justification of Funds

The Chiaf of Naval Operations establishes oparational and training objectivas consistent with the Navy's assigned role in national dafansa. Thase objectivas are translated into annual procurement programs in accordanca with logistics guidance se forth by the Secratary of Defensa, taking into account available fiscal resourcas. The resultant procurement plan is dasigned to maintain an effactive mix of weapons in tha combat invantory, and to provide weapons and targets in support of training, evaluation and pipalina requirements. In davaloping the plan, the Navy considers production feasibility and assures that missile delivarias are compatibla with aircraft and ship testing, production, develapment and deployment schedules.

The following paragraphs provide justification for tha Othar Missilas procurement programs. Initial spare parts amounts are includad for information undar each missile but are saparatal'y justifiad in the spares and rapair parts category.

Strategic Missiles

($ in Thousands)

FY 1986 Estimate - $ 549,000
FY 1985 Estimate - $ 560,100
FY 1984 Estimate - $ 326,200
FY 1983 Actual - $ 207,463

BGM-109 TOMAHAWK Cruise Missile

($ in Thousands)

	FY 1985 Qty	FY 1985 Amt	FY 1986 Qty	FY 1986 Amt
Procurement	180	$532,100	180	$516,000
Advance Procurement		28,000		33,000
Initial Speres		28,939		54,562
Procurement Cost		$589,039		$603,562

The TOMAHAWK Cruise Missile provides an attack capability against targets at sea (anti-ship Tomahawk) and on land (land-attack Tomahawk). TOMAHAWK is capable of being launched from aircraft, ships, submarines and ground launchers. The Cruise missile can be fitted with either a conventional high explosive or nuclear warhead and is propelled in flight by a small turbofan engine. The FY 1985 request of $560.1 million, which includes $28.0 million of advance procurement for FY 1986, will procure 90 anti-ship and 90 land attack missiles. The Tomahawk missile is designed to be deployed in submarines and surface ships in a variety of launchers. Denial of the FY 1985 request will critically limit the Navy's fighting capabilities that these ships have designed into them. Also, FY 1985 is the first year of competition of the all-up-round for Tomahawk. Any change in funding of the request will have an adverse affect on the competition.

Tactical Missiles

($ in Thousands)

FY 1986 Estimate - $3,129,500
FY 1985 Estimate - $2,364,511
FY 1984 Estimate - $1,779,779
FY 1983 Actual - $1,412,707

Funds budgeted under this category finance the procurement of air, surface and submarine launched missiles and aerial targets.

AIM/RIM-7F/M SPARROW III Missile

($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement	1250	$258,000	1692	$340,800
Initial Spares		2,471		8,216
Procurement Cost		$260,471		$349,016

SPARROW is both e supersonic, all-weathar, ell-aspect-capeble, air-to-air missile employed by F-4, F-14, F-15, and F-18 aircraft ageinst high performanca aircraft end a surface-to-air missile employed with tha NATO SEASPARROW system on various Naval vessels. Tha monopulsa seeker (AIM-7M), which hes im- proved electronic countermeasures, fuzing and look down/clutter capability, was introduced into the FY 1980 procurement. The RIM-7M for surfece leunch will eventually replace both tha RIM-7E and RIM-7H. Initiel procurement of 80 RIM-7M's was in FY 1981. The $258.0 million requested in FY 1985 provides for the procurament of 923 AIM-7M and 327 RIM-7M missiles at a cost of $253.9 million and equipment to support SPARROW missiles alreedy in the Fleet et a cost of $4.1 million. The 1250 missiles are required for oparational invantory requirements to meet combat sustainability objectives and to supplement tha inventory as oldar models of SPARROW are axpended. The FY 1985 AIM/RIM-7M missiles will be produced by Raytheon end General Dynamics. Tha AIM-7E/F support funds will financa training material, depot checkout equipment and publications required to maintain the operational readiness and to support the surface-to-air varsion of the AIM-7E (SEASPARROW). The requested procurement of 1250 missiles in FY 1985 is needed to build up the oparational invantory to meet combat sustainability objectives as aarlier, less capable versions of SPARROW are expended in training.

AIM-9L/M SIDEWINDER Mis.ile

($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement	1,000	$68,600	1,220	$92,600
Initial Spares		2,626		2,771
Procurement Cost		$71,226		$95,371

The SIDEWINDER AIM-9L/M is a joint Navy and Air Force (USN/USAF) short-range, air-to-air, infrared (IR) dogfight missile employed by both fightar end attack aircraft. The all-aspect launch capability is a significant improvement over previous SIDEWINDER varsions and greatly increases the firing envelope. The AIM-9M, a product improvement of the AIM-9L, provides for improved counter-countermeasures capability and an

improved ability to acquire targets in a high IR clutter background. The procurement of 2699 guidance units (1000 USN/1000 USN Modifications/699 FMS) in FY 1985 will be competed between the two mobilization base sources, Ford Aerospace and Raytheon, with the winner being awarded a larger quantity. The $68.6 million requested in FY 1985 will procure of 1000 missiles which are required to continue inventory build up of the AIM-9M version which will be the first line short range air defense missile through the 1990's. Failure to procure these missiles will seriously delay attainment of inventory requirements.

AIM-54A/C PHOENIX Missile ($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement	400	$407,000	567	$470,000
Advance Procurement		36,800		38,300
Initial Spares		37,994		38,566
Procurement Cost		$481,794		$546,866

The PHOENIX missile system is comprised of a long-range airborne weapon control system (AN/AWG-9) with multiple target-handling capabilities and long-range missiles utilizing semi-active mid-course and active terminal guidence. Its mission is to kill multiple air targets with conventional warheads. Six such missiles can be carried aboard the F-14 aircraft. Near simultaneous launch is possible against six targets in an all-weather and heavy-jamming environment. The improved Phoenix missile, the AIM-54C, provides improved lethality, stream raid discrimination, electronic counter countermeasure (ECCM) performance, high and low altitude performance and improved reliability and maintainability. As a result of these improvements, the missile will have greater capability to counter the projected MIG-25 FOXBAT aircraft and cruise missile threats. The PHOENIX does not replace any other missile. The $843.8 million requested in FY 1985, which includes $36.8 million of advance procurement for FY 1986, will finance the procurement of 400 PHOENIX missiles configured in the improved AIM-54C version. These missiles are needed to continue to increase the number of operational PHOENIX missiles in the active inventory, and to offset the loss of older AIM-54A missiles which are expended or suffer irreparable failure.

AGM/RGM/UGM-84A HARPOON Missile ($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement	354	$327,100	360	$336,000
Initial Spares		34,899		20,602
Procurement Cost		$361,999		$356,602

The HARPOON is an air, surface and submarine launched anti-ship cruise missile. It uses an active-radar seeker, radar altimeter, and altitude reference assembly in conjunction with a small digital computer for missile guidance and control. It is propelled by a turbo-jet sustainer engine augmented by a solid booster for ship and submarine launch. The missile has a standard 13.5 inch diameter with a weight of 1100 pounds for air launch and 1500 pounds for ship launch. It is compatible with the TARTAR, TERRIER, and ASROC ship launchers as well as with aircraft and submarine launch systems. The missile is planned for use aboard the FF-1052, DDG and DD-963, CG, CGN, PHM, BB, and FFG class ships, the P-3, S-3, A-6, and F/A-18 aircraft and nuclear attack submarines. The 1985 request of $327.1 million provides for procurement of 354 HARPOON missiles (155 air-launch, 174 surface-launch, and 25 submarine launch missiles). These weapons are requested to ensure adequate availability of weapons as new platforms are made operational, and to offset missile expenditures due to training and test requirements.

AGM-88A HARM Missile

($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement	803	$309,700	779	$258,500
Initial Spares		8,584		19,627
Procurement Cost		$318,284		$278,127

The High Speed Anti-Radiation Missile (HARM) is a joint Navy and Air Force air-to-surface missile designed to suppress or destroy land and sea-based radars supporting enemy air defense systems. HARM is a design evolution of anti-radiation missiles (ARM) such as SHRIKE and STANDARD ARM, and is planned to replace both missiles in the Navy inventory. HARM characteristics include: high speed, large-launch envelope, wide-band-frequency coverage in a single head, high sensitivity and compatability with various naval aircraft. The HARM has evolved from known and predicted deficiencies in SHRIKE and STANDARD ARM missiles in defeating current and future enemy air defense systems. Initial procurement commenced in FY 1981. The FY 1985 request of $309.7 million will procure 803 HARM missiles for the Navy. Failure to provide the requested number of missiles will seriously degrade the Navy's ability to counter the threat to aircraft and aircrews posed by enemy air defense systems. This procurement in FY 1985 will significantly increase the number of missiles in the inventory.

STANDARD MISSILE MEDIUM RANGE (MR)(SM-1 BLOCK VI)

($ in Thousands)

	FY 1985 Qty	FY 1985 Amt	FY 1986 Qty	FY 1986 Amt
Procurement	650	$206,300	1,100	$352,100
Initial Spares		2,647		6,194
Procurement Cost		$208,947		$358,294

The STANDARD MR (SM-1) is a supersonic, medium-range, tactical missile utilizing semi-active homing guidance. It provides the fleet with medium-range anti-air warfare capabilty against aircraft and missiles. The present production version utilizes a monopulse receiver common with SM-2, and a common SM-1 and SM-2 fuze and warhead. This version increased commonality with SM-2 and improved performance in the area of Electronic Counter Counter Measures (ECCM), maneuvering targets and low-altitude fuzing. The FY 1985 request of $206.3 million for 650 missiles provides for continued production of missiles required in support of Guided Missile Cruisers, Destroyers, and Frigates.

STANDARD MISSILE MEDIUM RANGE (MR)(SM-2 BLOCK II)

($ in Thousands)

	FY 1985 Qty	FY 1985 Amt	FY 1986 Qty	FY 1986 Amt
Procurement	475	$313,600	830	$495,300
Initial Spares		8,749		14,500
Procurement Cost		$322,349		$509,800

The STANDARD MR (SM-2) is a solid-propellant, tail-controlled, surface-to-air and surface-to-surface missile. The Block I production was initiated in FY 1980 and incorporated command guidance, inertial reference system and monopulse receiver to improve range, accuracy and electronic countermeasure (ECM) resistance. The SM-2 Block II MR missile began Pilot Production in FY 1983 and incorporates all digital guidance, new ordnence and a new dual-thrust rocket motor to further improve range, speed and system fire power. This missile will be operational on the AEGIS, DDG-51 and TARTAR CG NTU class ships. The FY 1985 request of $313.6 million for 475 missiles provides for continued production of missiles required in support of the AEGIS, DDG-51, and TARTAR Cruisers New Threat Upgrade class ships.

STANDARD MISSILE EXTENDED RANGE

($ in Thousands)

	FY 1985 Qty	FY 1985 Amt	FY 1986 Qty	FY 1986 Amt
Procurement	255	$186,700	500	$330,300
Initial Spares		14,028		14,502
Procurement Cost		$200,728		$344,802

The STANDARD ER line includes fleet support funding for the SM-1 ER, which ended production in FY 1974. The SM-2 ER missiles Block I (67B-1 produced FY 1976 through FY 1983) and Block II (67B-2 production began in FY 1982 and continues) are planned for deployment in all 31 TERRIER Guided Missiles destroyers and cruisers. The SM-2 block II missile incorporates improved propulsion, fuze, warhead and guidance designs to cope with the more stringent anti-ships missile (ASM) threats. The FY 1985 request of $186.7 million for 255 missiles provides for continued production of Extended Range missiles required in support of TERRIER Cruiser and New Threat Upgrade class ships. Included in the FY 1985 request is $1.9 million for minimum fleet support of SM-1 ER missiles.

STANDARD MISSILE (SPECIFIC APPLICATIONS) ($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement	-	$ -	-	$6,400
Initial Spares		-		-
Procurement Cost		$ -		$6,400

This line provides funding for the SM-2 nuclear version (N), which is a version of the STANDARD Missile (SM-2 Block II) equipped with the W81 Nuclear Warhead in place of the conventional warhead. The W81 nuclear warhead is provided by the Department of Energy (DOE). The warhead section, which contains the W81 nuclear warhead, is also a DOE item but contains Navy cognizance items that are budgeted here.

RIM 116A ROLLING AIRFRAME MISSILE (RAM) ($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement	30	$18,000	135	$34,600
Initial Spares		-		276
Procurement Cost		$18,000		$34,876

The Rolling Airframe Missile (RAM) is a high-power, low-cost, lightweight, complementary self-defense system to engage anti-ship capable missiles. It has duel-mode passive-radar-frequency/infrared guidance and will be fired from the NATO SEASPARROW Surface Missile System (NSSMS). Two cells of the NSSMS system will be modified to hold ten missiles (5) RAM rounds each). The RAM missile and NSSMS/RAM ORDALT are presently in Full Scale Engineering Development with Research, Development, Test and Evaluation funding in program elements PE 64369N and PE 64316N, respectively. In FY 1984 initial production tooling and test equipment will be procured to support the limited production in FY 1985. The FY 1985 appropriation request of $18.0 million will provide 30 initial, limited production missiles.

SIDEARM Missile

($ in Thousands)

	FY 1985 Qty	FY 1985 Amt	FY 1986 Qty	FY 1986 Amt
Procurement	-	-	151	$13,100
Initial Speres		-		-
Procurement Cost		$ -		$13,100

The SIDEARM is e rapid development program to provide an enti-radietion missile to counter point defenses. It is e short-range weepon, which can be cerried by most ettack eircreft without displecing other weepons from their normal stations. SIDEARM charecteristics include: low cost end small size. SIDEARM is e modification of e SIDEWINDER (AIM-9C) missile into an enti-redietion seeker. SIDEARM is 9-1/2 feet long, 5 inches in diameter, end weighs ebout 200 pounds. Procurement is requested to commence in FY 1986 with en initiel production of 151 missiles et a cost of $13.1 million.

AGM-114A HELLFIRE Missile

($ in Thousands)

	FY 1985 Qty	FY 1985 Amt	FY 1986 Qty	FY 1986 Amt
Procurement	438	$25,211	1,304	$56,000
Initiel Speres		310		1,043
Procurement Cost		$25,521		$57,043

HELLFIRE, developed by the Army, provides the Marine Corps with an extremely effective enti-armor weapon for use on AH-1T/J helicopters. In FY 1984 the initiel procurement of 219 missiles was made. In order to continue to build up the inventory of HELLFIRE to satisfy Marine Corps requirements. Continuing procurement is requested in FY 1985 for production of 438 missiles et a cost of $25.2 million.

AGM-65E LASER MAVERICK Missile

($ in Thousands)

	FY 1985 Qty	FY 1985 Amt	FY 1986 Qty	FY 1986 Amt
Procurement	600	$110,600	1,500	$177,900
Initial Spares		52		654
Procurement Cost		$110,652		$178,554

The LASER MAVERICK, e forward-fired, laser-guided missile, cen be employed from land or carrier based eircraft, and will be delivered primarily for A-4M, AV-8B, F/A-18, and A-6E Marine Corps eircrafts. It will be used for interdiction, close-air support end strike requirements against both lend and sea targets. $110.6 million is requested in FY 1985 for follow-on procurement of 600 LASER MAVERICK missiles. The FY 1985 procurement is required to continue to build up inventory levels of LASER MAVERICK to satisfy interdiction, close air support, and shrike requirements.

AGM-65F IIR MAVERICK Missile ($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement	190	$29,700	200	$26,000
Initial Spares		-		-
Procurement Cost		$29,700		$26,000

The Imaging Infrered (IIR) MAVERICK missile is currently being developed as e joint service program with the Air Force as executive service. The Navy version of the weapon will utilize IIR guidance unit optimized for ship tracking, e 300 pound penetrating blest/fragment warheed with cockpit-selectable fuzing end a reduced-smoke rocket motor. The IIR MAVERICK missile will provide the Nevy and Marine Corps with the capability to attack lend and sea targets from a more survivable position below and outside of close-in eir defense systems. The FY 1985 request of 29.7 million will provide an initiel quantity of 190 IIR MAVERICK to begin fulfilling inventory requirements. Failure to add the weapon to the inventory will require thet attack aircraft utilize munitions with less stand-off capability which will increese the likelihood of aircreft loss.

Aerial Targets ($ in Thousands)

	FY 1985				FY 1986			
	QTY	AMT	INITIAL SPARES	TOTAL	QTY	AMT	INITIAL SPARES	TOTAL
AQM-37A	100	14,180	100	14,280	120	17,140	100	17,240
BQM-74C	100	19,010	700	19,710	215	39,460	400	39,860
All Other Targets		27,310	100	27,410		35,500	-	35,500
		$60,500	$900	$61,400		$92,100	$500	$92,600

Aerial targets provide the representative threats needed to properly evaluate weapon systems and to provide for an effective Fleet Training programs. The BQM-74C is a recoverable, subsonic target that is required for both surface-to-air and air-to-air missile and gunnery exercises. The AQM-37C is e non-recoverable, supersonic target, which replicates high speed threats. The AQM-37C replaces the AQM-37A. In FY 1985, the procurements of the AQM-37C and BQM-74C targets account for $33.2 million of the total $60.5 million. The remaining $27.3 million finances the procurement of low-cost tow targets, the material costs for the conversion of F-86 aircraft into QF-86 full-scale aerial target, and target auxiliary equipments required for target control and augmentation.

Other Missile Support

($ in Thousands)

	FY 1985		FY 1986	
	Qty	Amt	Qty	Amt
Procurement		$6,700		$9,500
Initial Spares		250		703
Procurement Cost		$6,950		$10,203

The Other Missile Support program provides for procurement of Verticel Launching System (VLS) canisters, which are used as shipping containers, as missile housing in the VLS cells, and es launching tubes. VLS is e missile launching system for surface combatants capeble of launching missiles for ell warfare areas and adaptable to present and future weapons control systems.

Modification of Missiles

($ in Thousands)

FY 1986 Estimate - $73,500
FY 1985 Estimate - $62,000
FY 1984 Estimate - $58,700
FY 1983 Actusl - $67,790

The FY 1985 budget request for missile modification is $62.0 million. This budget request includes funds for air-launched and surface-launcned missile modifications. Funds requested provide for the procurement of modification kits only; all installation costs are budgeted in the Operation and Maintenance, Navy appropriation.

FY 1985 Modification Programs
($ in Thousands)

Air-Launched Missiles		Surface-Launched Missiles
SPARROW*	$ 2,400	STANDARD Missiles $6,200
SIDEWINDER	32,100	
PHOENIX	4,600	
HARPOON*	16,700	
TOTAL	$55,800	

* SPARROW and HARPOON can also be surface-launched.

Funds for FY 1985 air-launched missile modification programs are required to improve and update the operational characteristics of SPARROW, SIDEWINDER, PHOENIX and HARPOON missiles and assorted support equipment. The SPARROW missile modification program, budgeted at $2.4 million, provides for AIM/RIM-7M improvements to correct deficiencies found in Technical Evaluation/Initial Operational Test and Evaluation (TECHEVAL/IOT&E). The SIDEWINDER missile modification program, budgeted at $32.1 million, provides for the procurement of missile components to convert existing AIM-9H and AIM-9L missiles in inventory to the most current AIM-9M configuration. The PHOENIX missile modification program, budgeted at $4.6 million, provides for operability and reliability improvements in the missile. The HARPOON missile modification program, budgeted at $16.7 million, provides for various modifications to improve reliability and maintainability, to improve terminal homing capability in an electronic countermeasures (ECM) environment, and to enhance performance and survivability.

The FY 1985 STANDARD missile modification program is budgeted at $6.2 million. The STANDARD Medium Range (MR) missile modification program will reduce resonant burning by reloading of the MK-56 rocket motor. The STANDARD Extended Range (ER) missile modification program includes reconfiguring the MK-7 sustainer sections to the MK-30 version, and upgrading MK-12 boosters to reduce resonant burning and rough separation.

FY 1986 Modification Program
($ in Thousands)

Air-Launched Missiles		Surface-Launched Missiles
SPARROW	$ 2,300	STANDARD Missiles $6,200
SIDEWINDER	36,800	
PHOENIX	13,200	
HARPOON	15,000	
TOTAL	$67,300	

The FY 1986 funds required for the air-launched missile modification programs are budgeted at $67.3 million and continue required modifications for SPARROW, SIDEWINDER, PHOENIX and HARPOON missiles. The FY 1986 request includes funding for the procurement of additional components to continue the upgrading of the SIDEWINDER inventory to the AIM-9M configuration.

The FY 1986 STANDARD missile modification program, budgeted at $6.2 million, continues the required modifications of STANDARD MR and ER rocket motors and sustainer sections.

($ in Thousands)

Support Equipment and Facilities

FY 1986 Estimate - $489,816
FY 1985 Estimate - $242,349
FY 1984 Estimate - $219,200
FY 1983 Actual - $335,640

Support Equipment and Facilities include Initial Spares, Replenishment Spares, Weapons Industrial Facilities, Energy Conservation, Defense Meteorological Satellite and Fleet Satellite Communications programs.

Spares and Repair Parts

($ in Thousands)

FY 1985	FY 1986
$150,049	$195,316

Expendable items, such as guided missiles and non-recoverable target drones, require spares and repair parts for the repair of missiles or components which fail or are damaged while in the Fleet. For recoverable target drones, additional spares and repair parts are required to repair damage incurred in flight and recovery operations and for control and telemetry equipment. The FY 1985 and FY 1986 estimates for initial spares are $142.4 million and $182.7 million, respectively, and the estimates for replenishment spare parts are $7.6 million and $12.6 million, respectively. The following table depicts initial spares cost by weapon system and the number of systems being procured in that particular year.

($ in Thousands)

Missiles/Systems	FY 1985 Initial Sparas Amount	FY 1985 Missile Qty	FY 1986 Initial Sparas Amount	FY 1986 Missile Qty
TOMAHAWK	$28,939	180	$54,562	180
STANDARD Medium Range (MR) SM-1	2,647	650	6,194	1,100
STANDARD Medium Ranga (MR) SM-2	8,749	475	14,500	830
STANDARD Extanded Ranga (ER)	14,028	255	14,502	500
Rolling Airframe Missile (RAM)	-	30	276	135
Vertical Launching System (VLS) Canisters	250	-	703	-
SPARROW	2,471	1,250	8,216	1,692
SIDEWINDER	2,626	1,000	2,771	1,220
PHOENIX	37,994	400	38,566	567
HARPOON	34,899	354	20,602	360
HARM	8,584	803	19,627	779
LASER MAVERICK	52	600	654	1,500
Imaging Infrarad (IIR) MAVERICK	-	190	-	200
HELLFIRE	310	438	1,043	1,304
Aarial Tergats	900	-	500	-
TOTAL	$142,449		$182,716	

Requirements for initial sparas and repair parts are datarmined by detailed provisioning procadures that considar e number of factors, such as the usa of the end-itam, usage rate trends, engineering judgment, and eurvaillance program data.

For new and eophisticatad missiles, the initial sparas astimata includes an amount for "contractor support" of the system prior to oparational servica. Such contractor support takes the form of providing initial spares bafore Fleat usaga data is availabie or missile design is frozan. Any assets remaining at tha end of the contractor support phase ere epplied against future speres end repair perts requirements.

Requirements for raplanishment spares and repair parts ere darived utilizing e stratification technique. This technique considers tha number of missiles in the Fleet, Fleet deta of spere parts usage, Ready-For-Issua (RFI) spares returning from rework and repair programs, and equipment leadtimes to derive net fiscel year budget requirements. FY 1985 and FY 1986 replenishment spares end repair perts are required as follows:

($ in Thousands)

	FY 1985	FY 1986
Replenishment Spares	$7,600	$12,600
Air Launched Missile Support	(1,564)	(2,577)
Surface Launchad Missile Support	(6,036)	(10,023)

Weapons Industrial Facilities

($ in Thousands)

FY 1985	FY 1986
$27,400	$26,700

The FY 1985 ano 1986 estimates of $27.4 million and $26.7 million, respectivaly, for missila and other ordnance producing industrial facilitias include funds for threa categories of production support. The first of these categories, is restoration and replacament of machina tools, and ralated production equipment, and accounts for $5.0 million in FY 1985 and $5.0 million in FY 1986. This program is designed to provide and maintain an economical production capability through tha procurement of modern machine tools to replace obsolate equipment and the rastoration or modification of tools, which are worn or require updating. Inafficient government-ownad equipment is replaced or rahabilitated only whan: (1) tha contractor is unwilling or unable to fund tha projact, or (2) the project will re ce the and-itam coats to tha governmant and improve the industrial readiness posture. All actions undertaken in thia program ara scrutinizad to assura rapid amortization of procurament costs and maximum practicabla usaga of tools in inventory.

Tha sacond catagory is capital maintenance, emergency repairs, fire protection improvementa, and anergy conservation and management (ECAM), and is budgated at $7.8 million in FY 1985 and $7.0 million in FY 1986. Thase funds provida for nonrecurring capital maintenance at government-owned miasile and weapon producing industrial plants as well as amargency repairs and improvaments designed to reduca fire and other safaty hazards. Also included in FY 1985 and FY 1986 are $1.8 million and $0.8 million, respectivaly, for a time-phased raroofing of savaral buildings at Navy Industrial Rasarva Ordnanca Plant (NIROP), Pomona.

Tha third catagory is tha modarnization of ordnanca production facilitiea. The budgated amount of $13.9 million in FY 1985 and $13.7 million in FY 1986 will provide for a time-phased plant modernization of tha NIROP Pomona to meat needs forecast for the STANDARD missila family, the Close-In Weapons System, and tha Rolling Airframe Missila (RAM) program.

The fourth category includes $.7 million in FY 1985 and $1.0 million in FY 1986 for environmental restoration. Funds are budgeted for ground water cleanup at NIROP Minneapolis and for elimination of soil/water contamination at ABL Pinto.

Defense Meteorological Satellite

($ in Thousands)

FY 1985	FY 1986
$ -	$ 8,800

The Defense Meteorological Satellite program funds the Navy's procurement of Microwave Imagers. The imager has been developed and previously procured under a joint Navy/Air Force program. The imager is a newsensor tailored for operation onboard a new series of spacecraft that will fulfill Navy data requirements for surface wind speed, precipitation intensity and identification of ice edge, ice coverage and ice age in polar areas. The $8.8 million requested in FY 1986 will procure one imager for the Navy.

Fleet Satellite Communications

($ in Thousands)

FY 1985	FY 1986
$51,400	$56,300

The Fleet Satellite Communications (FLTSATCOM) system satisfies the Navy's urgent worldwide Ultra High Frequency (UHF) mobile user communication requirements. This includes protected fleet broadcast service to all Navy ships plus a vital command control service to all Anti-Submarine Warfare (ASW) platforms, Fleet Ballistic Missile (FBM) submarines, aircraft carriers, cruisers and other selected aircraft, ships and submarines. In addition, the system is capable of satisfying the Air Force equatorial satellite communication requirements including presidential airborne command posts, Strategic Air Command and emergency mission support communications. A constellation of channelized satellites, placed in geo-stationary orbits, each having an effective radiated nominal power of 5,495 watts, is needed to meet the designated Navy and Air Force UHF communications requirements. The worldwide four satellite constellation FLTSATCOM system is fully operational and is meeting or exceeding performance requirements. Satellite F-5 was launched on 5 August 1981 as an operational spare but incurred serious damage during launch.

The funds requested for FY 1985 will provide for the procurement of one spacecraft (F-8) and one launch vehicle plus engineering and National Aeronautics and Space Administration (NASA) support. Critical long lead materiel was budgeted prior to FY 1985.

The funds requested for FY 1986 include NASA launch preperation and launch of FLTSATCOM F-6 from Atlas/Centeur launch facility at Kennedy Spece Flight Center et Cape Canaveral, Florida, plus non-NASA support for launch, range and initiel on-orbit checkout.

Ordnance Support Equipment

($ in Thousands)

FY 1985	FY 1986
$13,500	$202,700

No justification materials submitted due to security consideretions.

Budget Activity 3: Torpedoes and Related Equipment

($ in Thousands)
FY 1986 Estimate - 1,020,400
FY 1985 Estimate - 799,000
FY 1984 Estimate - 650,800
FY 1983 Actual - 508,500

Purpose and Scope of Work: These funds provide for the procurement of anti-submarine/ship weapons such as torpedoes, mines and underwater targets, torpedo and mine modifications, and associated support equipment items related to production, as well as acquisition of other equipment and support necessary to maintain fleet readiness.

Justification of Funds: Of the $799.0 million requested in FY 1985, $561.9 million is for procurement of torpedoes and related equipment, $141.1 million is for modification of torpedoes and related equipment, including acquisition of MK-48 ADCAP modification kits, and $96.0 million is for procurement of support equipment including spares and repair parts.

Of the $1,020.4 million requested in FY 1986, $520.9 million is for procurement of torpedoes and related equipment, $398.0 million is for modification of torpedoes and related equipment, including acquisition of MK-48 ADCAP modification kits, and $101.5 million is for procurement of support equipment including spares and repair parts.

($ in Thousands)
FY 1986 Estimate - 520,900
FY 1985 Estimate - 561,900
FY 1984 Estimate - 476,400
FY 1983 Actual - 367,000

Of the $561.9 million requested in FY 1985, $127.7 million is for procurement of 144 MK-48 torpedoes, $256.0 million is for procurement of 1565 MK-46 NEARTIP torpedoes, $128.5 million is for procurement of 300 CAPTOR mines, $23.8 million is for underwater target procurements, and $25.9 million is for procurement of ASROC replacement components.

Of the $520.9 million requested in FY 1986, $155.5 million is for the procurement of 144 MK-48 torpedoes, $313.2 million is for the procurement of 1521 MK-46 NEARTIP torpedoes, $29.6 million is for underwater target procurements, $ 19.7 million is for procurement of ASROC replacement components and $2.9 million for Vertical Launch ASROC tooling and long-lead material.

The following paragraphs provide justification for the FY 1985 and FY 1986 Torpedoes and Related Equipment request. Initial spares and repair parts amounts are included for information purposes, but are separately justified in the Spares and Repair Parts category.

Torpedo MK-48

	($ in Thousands) FY 1985 QTY	FY 1985 AMT	FY 1986 QTY	FY 1986 AMT
Procurement	144	127,700	144	155,500
Initial Spares		2,655		2,700
Procurement Cost		130,355		158,200

The Torpedo MK-48 was developed to replace the less capable MK-37 torpedo in the Anti-Submarine role, and the MK-14 and MK-16 Torpedoes in the Anti-Ship role. FY 1985 and FY 1986 funds provide for the procurement of 144 MK-48 Mod 4 Torpedoes in each year and associated production and proofing support. Continuation of the MK-48 Mod 4 torpedo is required in order to provide for a continual phased build up of the MK-48 Mod 4 inventory at a minimum sustaining economic production rate thus precluding production line shutdown of the only heavyweight torpedo currently in full production, and will provide for an orderly transition to Advanced Capability (ADCAP) torpedo production commencing in FY 1987.

Torpedo MK-46

	($ in Thousands) FY 1985 QTY	FY 1985 AMT	FY 1986 QTY	FY 1986 AMT
Procurement	1565	256,000	1521	313,200
Initial Spares		1,803		-
Procurement Cost		257,803		313,200

The Torpedo MK-46 is a lightweight ASW torpedo launched from surface ship torpedo tubes, ASROC launchers, fixed wing and rotary wing aircraft. The Torpedo MK-46 (NEARTIP) is an improved version of the MK-46 Torpedo Mod 1 and features improved countermeasures resistance and an improved acoustic system. FY 1985 resources provide for completion of procurement of the NEARTIP (Mod 5) version of the Torpedo MK-46, fleet support items, production support and proofing under a three-year multiyear procurement which commenced in FY 1983. FY 1986 resources provide for continued procurement of the Torpedo MK-46 Mod 5 and related support in order to build up fleet inventories.

MK-60 CAPTOR

	($ in Thousands) FY 1985 QTY	FY 1985 AMT	FY 1986 QTY	FY 1986 AMT
Procurement	30	128,500	-	-
Initial Spares		6,655		-
Procurement Cost		135,155		-

CAPTOR (Encapsulated Torpedo) is a moored, influence activated ASW mine which employs an appropriately modified MK-46 torpedo as a payload. The CAPTOR system is delivered by aircraft, surface ships and submarines on extremely short notice and is designed to detect, classify and attack the most advanced diesel and nuclear submarines. The FY 1985 request is for the continued procurement of CAPTOR weapons, fleet support items, production support, and Navy support proofing efforts for CAPTOR units procured in FY 1985 and prior years. No procurement is programmed for FY 1986.

Mobile Target MK-30

	($ in Thousands) FY 1985 QTY	AMT	FY 1986 QTY	AMT
Procurement	0	21,300	6	18,700
Initial Spares		3,080		3,090
Procurement Cost		24,380		21,790

The MK-30 Mobile Target provides air, surface and submarine ASW units with the means to conduct realistic exercise firings on three-dimensional underwater ranges. This target provides the basic training capability to exercise surface ship and submarine sonars, actively and passively fired torpedoes, and aircraft equipped with sonobuoys and Magnetic Anomaly Detection (MAD) gear. The procurement of additional targets in FY 1985 and FY 1986 continues the build up of assets to support achievement of 2,400 MK-30 in-water runs per year at four underwater sites. The FY 1985 and FY 1986 requests are for continued procurement of MK-30 targets.

Expendable Mobile ASW Training Target (EMATT)

	($ in Thousands) FY 1985 QTY	AMT	FY 1986 QTY	AMT
Procurement	-	-	1200	8,200
Initial Spares		-		-
Procurement Cost		-		8,200

The Target MK 39, EMATT, is being developed to provide an improved, inexpensive, lightweight, expendable mobile ASW training target for open ocean use. The existing Mini-Mobile Target MK 38 was designed for use by ASW surface platforms and is not acoustically compatible with airborne sensor systems. The Target MK 39 EMATT will provide increased dynamic and acoustic capability for use with both surface and air ASW systems. The FY 1986 request provides for the initial procurement of 1200 targets.

MK-38 Mini Mobile Target

	($ in Thousands) FY 1985 QTY	AMT	FY 1986 QTY	AMT
Procurement	1200	2,500	1200	2,700
Initial Spares		-		-
Procurement Cost		2,500		2,700

The MK-38 mini mobile target is a small, expendable, hand-launched acoustic device for use as an open ocean training aid for sonar and torpedo teams. Its small size, low cost, ease of use and simplicity make it an excellent shipboard complement to the Mobile Target MK-30 which is confined to use on underwater ranges. The FY 1985 and FY 1986 requests provide for continued MK-38 Mini-Mobile Target production to support projected fleet usage, and associated production support and proofing efforts. The FY 1985 request represents the first year of a new three-year multiyear procurement.

ASROC Component Replacement

($ in Thousands)

	FY 1985 QTY	FY 1985 AMT	FY 1986 QTY	FY 1986 AMT
Procurement	-	25,900	-	19,700
Initial Spares		-		-
Procurement Cost		25,900		19,700

The ASROC (Anti-Submarine Rocket) is a weapon system designed around a range-controlled, unguided rocket missile which carries a torpedo or a depth charge as a payload. ASROC is utilized by most surface combatants to defend against high performance enemy submarines. The FY 1985 and FY 1986 requests provide for procurement of ASROC components to replace those that were expended during fleet training exercises. The principal element of cost in FY 1985 and FY 1986 is the continued procurement of rocket motor and Ignition Separation Assemblies MK-4 (ISA). The ISAs are being procured in a new design which makes them safe from the hazards of accidental detonation caused by shipboard electromagnetic equipment (designated HERO: Hazards of Electromagnetic Radiation to Ordnance). Procurement of the HERO-safe MK-4 ISA is required in order to replenish inventories of the older non-HERO safe MK-3 ISAs depleted by training losses and eventually to replace the entire inventory of the older components.

Vertical Launch ASROC

($ in Thousands)

	FY 1985 QTY	FY 1985 AMT	FY 1986 QTY	FY 1986 AMT
Procurement	-	-	-	2,900
Initial Spares		-		-
Procurement Cost		-		2,900

Vertical Launch ASROC is a replacement system for the older ASROC weapon system. It will provide an vertically launched weapon to a greater distance with equal accuracy utilizing the latest torpedo/depth charge configuration. The FY 1986 request is for procurement of tooling and long-lead material.

Modification of Torpedoes and Related Equipment

($ in Thousands)
FY 1986 Estimate - 398,000
FY 1985 Estimate - 141,100
FY 1984 Estimate - 110,800
FY 1983 Actual 63,300

The $141.1 million in FY 1985 and the $398.0 million in FY 1986 are requested to fund the following modification programs.

	($ in Thousands) FY 1985	FY 1986
MK-46 Torpedo Mods	2,300	87,400
MK-48 Torpedo Mods (ADCAP)	108,900	269,400
MK-48 Mods Initial Spares (ADCAP)	(8,057)	(15,550)
Mobile Mine MK-67	22,600	24,000
Mobile Mine MK-67 Initial Spares	(1,900)	(1,760)
CAPTOR Mods	5,700	15,700
Swimmer Weapon System	1,600	1,500

Torpedo MK-46 Mods

$2.3 million is requested in FY 1985 in order to provide for the procurement of 300 MK-46 Torpedo CAPTOR modification kits. These CAPTOR kits are installed in existing MK-46 torpedoes to make them compatible with the CAPTOR Mine MK-60 weapon system. $87.4 million is requested in FY 1986 in order to procure 656 NEARTIP modification kits. These NEARTIP kits will be installed in existing MK-46 Mod 1 torpedoes to convert them to Mod 5 torpedoes.

Torpedo MK-48 Mods

The FY 1985 request of $108.9 million and the FY 1986 request of $269.4 million provide for the procurement of 23 and 96 MK 48 Advanced Capability (ADCAP) kits, respectively, and tooling and ancillary equipment, support equipment and production support services. These modifications will be incorporated into existing inventory of MK-48 Mod 4 torpedoes and support equipment thus enabling the MK-48 ADCAP torpedo to counter enemy submarine threats through the 1990s. The improvements in the guidance and control systems will allow the ADCAP torpedo to operate against targets with reduced sonar target strength and targets which present a low doppler profile and improvements in the propulsion system will allow the torpedo to go faster, deeper and farther than the current MK-48 torpedo. These improvements will allow the ADCAP torpedo to operate in adverse environments such as shallow water, high sea conditions, strong thermal gradients and under ice.

Mobile Mine MK-67

$22.6 million is requested in FY 1985 and $24.0 million is requested in FY 1986 in order to procure the material for and support the modification of MK-37 Torpedoes to a Submarine Launched Mobile Mine (SLMM) configuration. Included within the funding requests are resources to support procurement of training mines, production support and proofing services.

CAPTOR Mods

$5.7 million is requested in FY 1985 and $15.7 million is requested in FY 1986 in order to support procurement of modifications for MK-60 CAPTOR mines currently in the fleet. These modifications will update the older mines to the latest approved production baseline configuration.

Swimmer Weapon System

$1.6 million is requested in FY 1985 and $1.5 million is requested in FY 1986 in order to provide for continued procurement of unique weapons and equipment required by the Navy special Warfare Groups One and Two (SEAL teams) to carry out beach clearance, underwater and direct action missions. Currently, there are eight SEAL teams deployed within the Fleet. The major special warfare system is the stand-off weapon assembly MK-32 which is comprised of the stand-off weapon MK-31 and weapon control system MK-5.

Support Equipment

	($ in Thousands)
FY 1986 Estimate -	101,500
FY 1985 Estimate -	96,000
FY 1984 Estimate -	63,600
FY 1983 Actual -	78,200

Of the $96.0 million requested in FY 1985, $46.5 million is for Torpedo Support Equipment, $24.8 million is for ASW Range Support, and $24.7 million is for initial spares and repair parts.

Of the $101.5 million requested in FY 1986, $43.2 million is for Torpedo Support Equipment, $34.6 million is for ASW Range Support, and $23.7 million is for initial spares and repair parts.

Torpedo Support Equipment

	($ in Thousands) FY 1985	FY 1986
Procurement	$46,500	$43,200
Initial Spares	-	-
Procurement Cost	$46,500	$43,200

This line item provides the fleet with the components necessary to restore weapons used to conduct training exercises (which involves actually firing the torpedoes) back to a ready-for-issue warshot status. Thus this request supports combat-ready deployment of anti-submarine warfare forces. The funds requested provide for procurement of components expended during torpedo firings such as batteries, pressure cylinders, propellant assemblies and various air-launch accessories; equipment and components worn out or lost during repeated service such as exercise heads and fuel tanks; and production support efforts associated with the above procurements. Procurement quantities of these items vary each year and are dependent upon fleet training requirements and the tempo of operations. The FY 1985 and FY 1986 resources procure the material required to support fleet training exercises and operational inventories for the MK-46 and MK-48 torpedoes.

ASW Range Support

	($in Thousands) FY 1985	FY 1986
Procurement	24,800	34,600
Initial Spares	550	600
Procurement Cost	25,350	35,200

The ASW Range Support Program provides for the procurement of range proofing and fleet support equipments required for use on the Navy's underwater ranges and for the fixed costs of on-range proofing services. This includes the procurement of pingers, transponders, MK-30 and MK-27 Target exercise components and other related items. This line item supports Fleet exercises and torpedo firings and provides equipment for ASW readiness assessment.

Spares and Repair Parts

The requested funding provides for the procurement of initial spares and repair parts to support the ASW weapons and support equipment procured in this budget activity. Requirements for Navy initial spares procurement are determined by detailed provisioning procedures that take into account a number of factors, such as the use of the end-item, usage rate trends, engineering judgment and turnaround time for repairable items.

The following table shows a breakdown of initial spares incident to the weapon systems supported.

Initial	($ in Thousands) FY 1985	FY 1986
MK-48 Torpedo	2,655	2,700
MK-46 Torpedo	1,803	-
CAPTOR	6,655	-
MK-30 Mobile Target	3,080	3,090
MK-48 Mods (ADCAP)	8,057	15,550
Mobile Mine MK-67 (SLMM)	1,900	1,760
ASW Range Support	550	600
Total Initial	24,700	23,700

Budget Activity 4: Other Weapons

($ In Thousands)
FY 1986 Estimate - $253,000
FY 1985 Estimate - $243,100
FY 1984 Estimate - $156,500
FY 1983 Actual - $158,700

Purpose and Scope of Work:

These funds provide for the procurement of guns and gun mounts for U.S. Navy and Coast Guard Ships. This budget activity also provides for the associated gun spares, repair parts, modifications and support.

Justification of Funds

Of the $243.1 million requested in FY 1985, $183.4 million is for 51 Close-in Weapon Systems, 4 MK-75/76MM Gun Mounts, 58 MK-19 Mod 3 40MM Machine Guns, 17 25MM Gun Mounts, and Small Arms and Weapons. $46.3 million is for Gun and Gun Mount modification and $13.4 million is for spares and repair parts and support equipment.

Of the $253.0 million requested in FY 1986, $176.4 million is for 43 Close-in Weapon Systems, 6 MK-75/76MM Gun Mounts, 56 MK-19 Mod 3 40MM Machine Guns, 29 25MM Gun Mounts, and Small Arms and Weapons. $64.5 million is for Gun and Gun Mount modification and $12.1 million is for spares and repair parts and support equipment.

The following paragraphs provide justification for Other Weapons. Initial spare parts amounts are included for information under each weapon system, but are separately justified in the spares and repair parts category.

Guns and Gun Mounts

($ in Thousands)
FY 1986 Estimate - $176,400
FY 1985 Estimate - $183,400
FY 1984 Estimate - $134,500
FY 1983 Actual - $123,100

Of the $183.4 million requested for Guns and Gun Mounts in FY 1985, $163.9 million is for 51 MK-15 Close-in Weapon Systems, $10.9 million is for 4 MK-75/76MM Gun Mounts, $2.0 million is for 58 MK-19 Mod 3 40MM Machine Guns, $3.1 million is for 17 25MM Gun Mounts, and $3.5 million is for Small Arms and Weapons.

Of the $176.4 million requested for Guns and Gun Mounts in FY 1986, $144.9 million is for 43 Close-in Weapon Systems, $18.9 million is for 6 MK-75/76MM Gun Mounts, $2.0 million is for 56 MK-19 Mod 3 40MM Machine Guns, $5.5 million is for 29 25MM Gun Mounts, and $5.1 million is for Small Arms and Weapons.

MK-15 Close-In Weapon System (PHALANX)

($ In Thousands)

	FY 1985		FY 1986	
	QTY	AMT	QTY	AMT
Procurement	51	$163,900	43	$144,900
Initial Spares	-	2,403	-	814
Procurementa Coat	51	$166,303	43	$145,714

The PHALANX is designed as a fast resction, last ditch defense against low flying aircraft and anti-ship miaailes penetrating other Fleet defenaive wespons envelopea. The system is an automatic self-contained unit consisting of a aearch and track radar, digital fire control ayatem snd a 20MM M61A1 gun all mounted in a single above deck structure requiring a minimum of interface with other ship syatems. It automatically detects, evsluates, tracks, engages, assesaes kill and returns to search mode. The syatem will be installed in over 300 ships, both new construction and retrofit. Commencing in FY 1984, improvementa will be incorporsted and will result in incressed magszine capacity and increas ed search evsluation. The requests represent funds for 51 systess in FY 1985 and 43 systems in FY 1986 fo r backfit onto active Fleet ships.

MK-75/76MM Gun Mount

($ In Thousands)

	FY 1985		FY 1986	
	QTY	AMT	QTY	AMT
Procurement	4	$10,900	6	$18,900
Initial Spares	-	3,565	-	4,322
Procursment Cost	4	$14,465	6	$23,222

This gun is an OTO MELARA designed, 76MM/62 caliber, dual purpose, high rate of fire gun being installed in new construction hulls (Coast Guard cutters; Navy Patrol boats and frigstes).

This request provides for the procurement of four (4) gun systems, two (2) for Mid-Life Conversion of the Hamilton Class Coast Guard cutters and two (2) for rotatable pool to support overhaul, in FY 1985; snd six (6) gun systems, four (4) for Hamilton Class and two (2) for rotatable pool, in FY 1986.

MK-19 40MM Machine Gun

($ In Thousands)

	FY 1985		FY 1986	
	QTY	AMT	QTY	AMT
Procurement	58	$2,000	56	$2,000
Initial Sparss		980	-	0
Procurement Cost	58	$2,980	56	$2,000

The MK-19 Mod 3 40MM Machine Gun program is required to provide a more effective, safe and reliable 40MM grenade firing weapon for arming ships and crafts. The MK-19 Mod 3 is planned as an initial issue and replacement weapon for the Navy's present inventory of MK-19 Mod 1 40MM Machine Guns.

25MM Gun Mount

	($ In Thousands) FY 1985		FY 1986	
	QTY	AMT	QTY	AMT
Procurement	17	$3,100	29	$5,500
Initial Spares	-	675	-	279
Procurement Cost		$3,775		$5,779

This line provides for the procurement of 25MM M242 guns and mounts to replace MK-16 Mods 4/5 20MM Gun Mounts. The M242 gun is being procured by the Army, is type classified and uses standard US/NATO percussion primed family of ammunition.

Small Arms and Weapons

	($ In Thousands) FY 1985		FY 1986	
	QTY	AMT	QTY	AMT
Procurement	-	$3,500	-	$5,100

This line provides for initial procurement, modernization, standardization, and stock replenishment procurement of a wide variety of Small Arms and Weapons (.50 Caliber and below) including required gun mounts and associated support components. This line also provides for procurement of sufficient types and quantities of weapons to support training, security, afloat and ashore missions of approximately 2400 ships and ashore activities Navy-wide.

Modification of Guns and Gun Mounts

	($ In Thousands)
FY 1986	Estimate - $64,500
FY 1985	Estimate - $46,300
FY 1984	Estimate - $13,300
FY 1983	Actual - $15,200

Of the $46.3 million requested for modification of guns and gun mounts in FY 1985, $30.3 million is for MK-15 Close-In Weapon System modification, $6.2 million is for 5"/54 Gun Mount modification, $2.7 million is for MK-75/76MM Gun Mount modification, $.4 million is for 3"/50 Gun Mount modification, $5.5 million is for Coast Guard Support, and $1.2 million is for modifications under $900,000.

Of the $64.5 million requested for modification of guns and gun mounts in FY 1986, $37.1 million is for MK-15 Close-In Weapon System modification, $14.1 million is for 5"/54 Gun Mount modification, $4.2 million is for MK-75/76MM Gun Mount modification, $.7 million is for 3"/50 Gun Mount modification, $6.9 million is for Coast Guard Support, and $1.5 million is for modifications under $900,000.

MK-15 Close-In Weapons System (PHALANX) Modification

($ In Thousands)

	FY 1985		FY 1986	
	QTY	AMT	QTY	AMT
Procurement	-	$30,300	-	$37,100

The $30.3 million in FY 1985 and $37.1 million in FY 1986 are requested for improvements to the Close-In Weapon System which will result in increased magazine capacity, increased search elevation angle and adaptive firing rate. Funds requested are to adapt previously procured units to incorporate these improvements. Systems being procured in FY 1984 and subsequent years will incorporate these improvements.

5"/54 Gun Mount Modifications

($ In Thousands)

	FY 1985		FY 1986	
	QTY	AMT	QTY	AMT
Procurement	-	$6,200	-	$14,100

Of the funds requested, $6.2 million in FY 1985 and $14.1 million in FY 1986 are required for continuation of the 5"/54 production improvement program which provides hardware to correct deficiencies and improve operability, reliability, maintainability and system availability of all in-service 5"/54 Gun Mounts.

3"/50 Gun Mount Modifications

($ In Thousands)

FY 1985	FY 1986
$ 400	$ 700

The $.4 million in FY 1985 and $.7 million in FY 1986 are requested for major reliability, maintainability, and availability improvements for 3"/50 Gun Mounts.

MK-75/76MM Gun Mount Modifications

($ In Thousands)	
FY 1985	FY 1986
$ 2,700	$ 4,200

The $2.7 million in FY 1985 and $4.2 million in FY 1986 are requested to procure safety, operability, reliability, shock, vibration and survivability modifications to correct in-service MK-75/76MM Gun Mount deficiencies. Prior to FY 1982, these modifications were funded in the Modifications Under $900,000 line due to the lesser magnitude of the program.

Coast Guard Gun Support

($ In Thousands)	
FY 1985	FY 1986
$ 5,500	$ 6,900

The $5.5 million in FY 1985 and $6.9 million in FY 1986 are requested for 40MM MK3 Mod 9 Gun Systems for Coast Guard Cutters to replace the manually operated slow fire 3"/50 weapons presently installed on the 210 foot cutters.

Modifications Under $900,000

($ In Thousands)	
FY 1985	FY 1986
$ 1,200	$ 1,500

The $1.2 million in FY 1985 and $1.5 million in FY 1986 are requested to procure a variety of ordnance alteration materials for in-service 16"/50 gun turrets, gun mounts, and 20MM through 40MM minor calibration ordnance.

Support Equipment

($ In Thousands)	
FY 1986 Estimate	- $12,100
FY 1985 Estimate	- $13,400
FY 1984 Estimate	- $ 8,700
FY 1983 Actual	- $20,400

Of the $13.4 million requested for support equipment in FY 1985, $.6 million is for Gun Support Equipment and $12.8 million is for spares and repair parts.

Of the $12.1 million requested for support equipment in FY 1986, $1.2 million is for Gun Support Equipment and $10.9 million is for spares and repair parts.

Gun Support Equipment

($ In Thousands)	
FY 1985	FY 1986
$ 600	$ 1,200

The $.6 million in FY 1985 and $1.2 million in FY 1986 are requested to procure a variety of ordnance in in support of Surface Gun Systems. This includes training aids and small arms.

Spares and Repair Parts

($ in Thousands)	
FY 1985	FY 1986
$ 12,800	$ 10,900

The $12.8 million in FY 1985 and $10.9 million in FY 1986 are requested to procure initial spares in support of Navy surface ordnance consisting of all guns, associated equipment (hoists, shields, etc.), and related support material.

Requirements for Navy initial spares support are determined by detailed provisioning procedures which take into account a number of factors such as the use of the end-item, usage rate trends, engineering judgment and turnaround time for repairable items.

	($ in Thousands)	
	FY 1985	FY 1986
Initial	$ 12,800	$ 10,900

The following table shows a breakdown of funds requested for initial and 2J cog spare parts by the gun systems supported:

	($ in Thousands)	
Initial Spares	FY 1985	FY 1986
Close-In-Weapon System	$ 2,403	$ 814
MK-75/76MM 62 Gun Mount	3,565	4,322
5"/54 Gun Barrels	1,309	1,383
25MM M242 Gun System	675	279
40MM MK 3 Mod 0	980	0
2J Cog Spares	3,868	4,102
TOTAL	$12,800	$ 10,900

Comparison of FY 1984 Program Requirements as Reflected In FY 1984 Budget With FY 1984 Program Requirements as Shown in FY 1985 Budget

Summary of Requirements (In Thousands of Dollars)

	Total Program Requirements Per FY 1984 Budget	Program Requirements Per FY 1985 Budget	Increase (+) or Decrease (-)
Ballistic Missiles	$ 615,000	$ 578,400	$- 36,600
Other Missiles	2,528,900	2,383,879	-145,021
Torpedoes and Related Equipment	703,300	650,800	- 52,500
Other Weapons	181,400	156,500	- 24,900
Reimbursable Program	5,000	25,000	+ 20,000
Total Fiscal Year Program	$4,033,600	$3,794,579	$-239,021

Explanation by Budget Activity

1. Ballistic Missiles ($-36.6 Million)

The decrease results from a Congressional reduction of $31.9 million to the TRIDENT I request and the application of $4.7 million of the general Congressional reductions to Ballistic Missiles.

2. Other Missiles ($-145.0 Million)

The decrease reflects Congressional adjustments totaling $-138.5 million for the following: $-36.2 million to the TOMAHAWK Missile request; $-7.2 million to the TOMAHAWK Advance Procurement request; $-20.0 million to the PHOENIX Missile request resulting in a reduction of 25 missiles; $-41.0 million to the PHOENIX Advance Procurement request; $-10.0 million to the HARPOON Missile request resulting in a reduction of 15 missiles; $-29.1 million in general reductions; and the addition of $5.0 million for the PENGUIN Missile Advance Procurement. Additional decreases totaling $-6.5 million reflect planned DD 1415 reprogramming actions for higher priority Navy requirements.

3. Torpedoes and Related Equipment ($-52.5 Million)

The decrease reflects Congressional adjustments of $-45.2 million for the following: $-35.1 million to the MK-46 Torpedo request; $+2.9 million to the Mobile Target MK-30 request; $-7.4 million deleting the Mobile Target MK-30 Advance Procurement request; and $-5.6 million in general reductions. Additional decreases totaling $-7.3 million reflect planned DD 1415 reprogramming actions for higher priority Navy requirements.

4. Other Weapons ($-24.9 Million)

The decrease reflects planned DD 1415 reprogramming actions totaling $-24.1 million for transfer to higher priority Navy requirements. One significant program decrease was $-16.1 million from the 5"/54 Caliber Gun Mount Rotable Pool procurement. This became possible when it was decided to replace the after starboard 5"/54 Gun Mount from the five LHA Class ships with the Close in Weapons System. This made the five systems available for use in the rotable pool and eliminated the need to procure the additional mounts. Additional decreases of $-.8 million are due to Congressional general reductions.

5. Reimbursable Program ($+20.0 Million)

The increase reflects additional anticipated reimbursable orders.

Comparison of FY 1984 Financing As Reflected
In FY 1984 Budget With FY 1984 Financing As
Shown in FY 1985 Budget

	Financing Per FY 1984 Budget	Financing Per FY 1985 Budget	Increase (+) or Decrease (-)
Program Requirements (Total)	$4,033,600	$3,794,579	$-239,021
Program Requirements (Service Account)	4,028,600	3,769,579	-259,021
Program Requirements (Reimbursable)	5,000	25,000	+ 20,000
Less:			
Anticipated Reimbursements	5,000	25,000	+ 20,000
Reprogramming from prior year budget plans	-	-	-
Unobligated balance available from prior year to finance new budget plans	-	77,800	+ 77,800
Transferred from other accounts	-	-	-
Add:			
Unobligated balance available to finance subsequent year budget plans	-	-	-
Appropriation (Adjusted)	$4,028,600	$3,691,779	$-336,821

Explanation of Changes in Financing

The decrease of $336.8 million to the FY 1984 Appropriation resulted from a reduction by Congress of $303.3 million in the FY 1984 Appropriation request and transfers to other accounts totaling $33.5 million. The $259.0 million decrease to the service account program requirements is due to Congressional reductions of $303.3 million and the transfers to other accounts of $33.5 million offset by the transfer of $77.8 million from the Weapons Procurement, Navy, 1983/1985 appropriation approved in the FY 1984 DOD Appropriation Bill. The adjustment for reimbursables reflects an anticipated $20 million increase in reimbursable orders.

Compariaon of FY 1983 Program Requirementa as Reflected
In FY 1984 Budget With FY 1983 Program Requirements as
Shown in FY 1985 Budget

Summary of Requirementa (In Thousands of Dollars)

	Total Program Requirements Per FY 1984 Budget	Program Requirementa Per FY 1985 Budget	Increaae (+) or Decrease (-)
Balliatic Miaailes	$ 696,500	$ 667,400	$- 29,100
Other Missiles	2,062,500	2,023,600	- 38,900
Torpedoea and Related Equipment	514,800	508,500	- 6,300
Other Weapona	161,300	158,700	- 2,600
Reimbursable Program	5,000	26,523	+ 21,523
Total Fiacal Yeai Prog[illegible]	$3,440,100	$3,384,723	$- 55,377

Explanation by Budget Activity

1. Ballistic Miaailes ($-29.1 Million)

The decrease results from a $29.1 million DD 1415 reprogramming action to the Military Pay, Navy appropriation.

2. Other Missiles ($-38.9 Million)

The net decrease results from an $8.9 million DD 1415 reprogramming action to the Military Pay, Navy appropriation; the transfer of $40.0 million for the HARM Missile program to the 1984/1986 Weapons Procurement, Navy appropriation approved in the FY 1984 DOD Appropriation Bill; and the reinstatement of $10.0 million to the Laser Maverick Missile program due to the Congressional denial of a DD 1415 reprogramming action.

3. Torpedoes and Related Equipment ($-6.3 Million)

The net decrease results from a $10.7 million DD 1415 reprogramming action to the Military Pay, Navy appropriation; the reinstatement of $35.9 million to the CAPTOR program due to the Congressional denial of DD 1415 reprogramming actions; and the subsequent transfer of $31.5 million for the CAPTOR program to the 1984/1986 Weapons Procurement, Navy appropriation approved in the FY 1984 DOD Appropriation Bill.

4. Other Weapons ($-2.6 Million)

The net decrease results from a $2.6 million DD 1415 reprogramming action to the Military Pay, Navy appropriation; the reinstatement of $6.3 million to the Close in Weapons System due to the Congressional denial of a DD 1415 reprogramming action; and the subsequent transfer of $6.3 million for the Close in Weapons System to the 1984/1986 Weapons Procurement, Navy appropriation approved in the FY 1984 DOD Appropriation Bill.

5. Reimbursable Program ($+21.5 Million)

The increase reflects additional anticipated reimbursable orders.

Comparison of FY 1983 Financing As Reflected
In FY 1984 Budget With FY 1983 Financing As
Shown in FY 1985 Budget

	Financing Per FY 1984 Budget	Financing Per FY 1985 Budget	Increase (+) or Decrease (-)
Program Requirements (Total)	$3,440,100	$3,384,723	$- 55,377
Program Requirements (Service Account)	3,435,100	3,358,200	- 76,900
Program Requirements (Reimbursable)	5,000	26,523	+ 21,523
Less:			
Anticipated Reimbursements	5,000	26,523	+ 26,523
Reprogramming from prior year budget plans	-	-	-
Unobligated balance available from prior year to finance new budget plans	-	-	-
Transferred from other accounts	-	-	-
Add:			
Unobligated balance available to finance subsequent year budget plans	-	87,800	+ 87,800
Appropriation (Adjusted)	$3,435,100	$3,446,000	$+ 10,900

Explanation of Changes in Financing

The increase of $10.9 million to the FY 1983 Appropriation resulted from a reinstatement of $10.9 million planned for transfer to other accounts due to the Congressional denial of DD 1415 reprogramming actions. The $76.9 million decrease to the service account program requirements is due to DD 1415 reprogramming actions to the Military Pay, Navy appropriation totaling $51.3 million and the transfer of $77.8 million to the Weapons Procurement, Navy, 1984/1986 appropriation approved in the FY 1984 DOD Appropriation Bill, offset by the reinstatement of $52.2 million due to the Congressional denial of DD 1415 reprogramming actions. The adjustment for reimbursables reflects an anticipated $21.5 million increase in reimbursable orders.

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MISSILE MODIFICATIONS

Missile Modification

Appropriation: Weapons Procurement, Navy
Missile Type: POSEIDON UGM-73A (C-3)
Missile Modification Title: C-3 First and Second Stage Motor Nozzle

Description/Justification: This SPALT provides for corrective actions on bondline gaps and separations detected on tactical first and second stage nozzles and for an additional exit liner retention mechanism for the first stage nozzle. These actions will maintain the reliability of the nozzle by correcting a potential failure mode.

Scope of Program:

	FY 1983 & Prior Years		FY 1984		FY 1985		FY 1986		Future Years		Total Program	
STACE	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
FIRST STACE	0	0	0	0	92	$13,500	192	$18,700	86	$ 8,300	370	$40,500
SECOND STACE	0	0	0	0	33	5,900	169	16,000	159	14,800	361	36,700
Total	0	0	0	0	125	$19,400	361	$34,700	245	$23,100	731	$77,200

Basis for Cost Estimate: Engineering Estimates.

Method of Implementation: Return to Vendor.

Installation Schedule: FY 1985-FY 1988.

Missile Modification

Appropriation: Weapons Procurement, Navy
Missile Type: POSEIDON UGM-73A (C-3)
Missile/Modification Type: C-3 Thrust Vector Control (TVC) Gas Generator

Description/Justification: The current C-3 TVC Gas Generators are tested in an annual Sevice Life Evaluation Program. The past years of deployed TVC Gas Generators have produced a degradation of the propellant. This modification will provide new TVC Gas Generators.

Scope of Program:

($000)

FY 1983 & Prior Years		FY 1984		FY 1985		FY1986		Future Years		Total Program	
Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
364	$10,286	198	$5,161	89	$3,000	57	$2,000	141	$5,275	849	$26,722

Basis for Cost Estimate: Cost based on vendor experience and vendor estimates.

Method of Implementation: Incorporation of this SPALT will be accomplished at POMFLANT.

Installation Schedule: SPALT to be installed in accordance with POMFLANT schedule.

Missile Modification

Appropriation: Weapons Procurement, Navy
Missile Type: POSEIDON UGM-73A (C-3)
Missile/Modification Type: Alternate MK-3 Body Nose Cap Exchange

Description/Justification: The MK-3 Reentry Body (REB) Nose Cap has been redesigned to increase tactical mission reliability. This redesign, incorporating the use of state-of-the-art technology and new materials, will minimize the number of deployed hardware which has a low probability of survival under certain reentry conditions.

Development Status: Development is complete. All test flights to date have been successful.

Scope of Program:

($000)

FY 1983 & Prior Years	FY1984	FY1985	FY1986	Future Years	Total Program
$13,111	$3,439	$2,800	$1,000	$900	$21,250

Basis for Cost Estimate: Material costs based upon past procurements by Union Carbide Corporation. Labor is based on prior costs and experience gained in fabrication of the previous MK-3 Nose Caps.

Method of Implementation: Factory level replacement of MK-3 REB Nose Caps with alternate nose caps is being accomplished at Lockheed Missiles and Space Company, Sunnyvale, California.

Installation Schedule: The alternate MK-3 Nose Caps will be installed concurrent with the Limited Life Component Exchange schedules.

Missile Modification

Appropriation: Weapons Procurement, Navy
Missile Type: POSEIDON UGM-73A (C-3)
Missile Modification Title: C-3 Motor Heaters

Description/Justification: This SPALT alters the Second Stage Motor of the POSEIDON (C-3) missile by adding a Heater Assembly on those second stage motors with B.F. Goodrich insulators. (This SPALT was formerly performed on only those C-3 motors with Uniroyal insulators.) The heater assembly consists of a strip heater and cover assembly and is part of the second stage motor heater system. This system will improve second stage motor reliability by increasing the pre-flight insulator temperature.

Scope of Program: ($000)

FY 1983 & Prior Years		FY 1984		FY 1985		FY 1986		Future Years		TOTAL	
Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
270	$5,635	0	0	0	0	0	0	0	0	270	$5,635

Basis for Cost Estimate: Prior costs and experience gained from alteration of C-3 motors with Uniroyal insulators.

Method of Implementation: SPALT will be implemented both at the POSEIDON Missile Facility, Atlantic (POMFLANT) located at Charleston, South Carolina and on board deployed submarines.

Installation Schedule: FY 1983-FY 1985.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: AIM/RIM-7M SPARROW III

Missile Modification Title: Product Improvement Program

Description/Justification: Program will incorporate computer program correcting deficiencies found in TECHEVAL/IOT&E into FY-80/81/82/83 production missiles.

Development Status: Complete.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	120	$472	234	$926	573	$2,400	518	$2,300	937	$4,386	1864	$8,184
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total		$472		$926		$2,400		$2,300		$4,386		$8,184

Basis of Cost Estimate: Current product improvement costs.

Implementation/Installation Activity: At contractor facilities with O&M,N funds.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: AIM-9 SIDEWINDER

Missile Modification Title: AIM-9H/L Obsolescence

Description/Justification: The AIM-9M is the latest version of the Sidewinder missile. The AIM-9M retains all demonstrated performance of the AIM-9L and, in addition, provides an improved infrared counter-countermeasures (IRCCM) and target versus background discrimination capabilities. The AIM-9M has emerged as the least cost, most effective missile system to meet the expanded threat identified for the mid 1980's. To enhance Sidewinder inventory capability, current plans are to remove the AIM-9H and AIM-9L guidance sections from inventory. The SIDEWINDER missile is procured as seven separate components which are assembled into an all up round missile at Naval Weapons Stations. The AIM-9L and AIM-9M guidance sections are interchangeable with all other components. The AIM-9H obsolescence will require procurement of the AIM-9M guidance sections, sets of fins and safe-arming devices. The AIM-9L obsolescence will require only the AIM-9M guidance sections.

Development Status: Not applicable.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	1180	$45,490	920	$29,100	1000	$32,100	-	-	1080	$36,800	4180	$143,490
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total		$45,490		$29,100		$32,100				$36,800		$143,490

Basis of Cost Estimate: Current production contract prices.

Implementation/Installation Activity: Installation will take place at Naval Weapon Stations using O&M,N funding.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: PHOENIX AIM-54A/C

Missile Modification Title: AIM-54A Coldwall Retrofit

Description/Justification: Retrofit existing epoxy sealed AIM-54A coldwalls with brazed coldwalls to eliminate coolant saturation problem.

Development Status: Under development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurment												
Kits	66	$239	125	$464	197	$769	192	$812	1020	$3,650	1600	$5,934
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total		$239		$464		$769		$812		$3,650		$5,934

Basis of Cost Estimate: Non-recurring cost - $1.5.
Recurring cost per missile - $3.7.

Implementation/Installetion Activity: Kit procurement from Hughes Aircraft Co. - to be installed by NARF during normal rework cycle with O&M,N funds.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: PHOENIX AIM-54A

Missile Modification Title: AIM-54A Missile Operational Life Improvement

Description/Justification: Extend the AIM-54A life and configuration improvements by replacing dependent Guidance Section parts and units having high potential for failure and units which cannot be supported without improved assemblies.

Development Status: Engineering development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	-	-	-	-	174	$3,014	1376	$18,502	1550	$21,516
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total								$3,014		$18,502		$21,516

Basis of Cost Estimate: Non-recurring cost - $644.
Recurring cost per missile - $13.62.

Implementation/Installation Activity: Procurement from Hughes Aircraft Co. - installation at Depot with O&M,N funds.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: PHOENIX AIM-54C

Missile Modification Title: AIM-54C Missile Operational Life Improvement

Description/Justification: Ensure the AIM-54C life by replacing dependent Guidance and Control Section parts and units having high potential for failure which cannot be supported because of poor reliability or out of production components.

Development Status: Engineering development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	-	-	26	$3,831	100	$9,374	173	$16,211	299	$29,416
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total						$3,831		$9,374		$16,211		$29,414

Basis of Cost Estimate: Non-recurring cost - $1,325.
Recurring cost per missile - $96.38.

Implementation/Installation Activity: Procurement from Hughes Aircraft Co. - installation at Hughes Aircraft Company.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-24R3) (AWC-231) Turbojet Engine Oil Leakage Repair.

Description/Justification: Missiles returning from the fleet are experiencing turbojet engine oil leakage, in some cases rendering the missile unserviceable. By adding an additional housing as a component of the magnetic seal assembly used for installation of an "O" ring seal the unpredictable oil leakage rate, will be prevented. The existing magnetic seal will be modified to include the housing and "O" ring aft of the existing carbon face seal.

Development Status: ECP approved and implemented.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits A1	293	$141.0	67	$36.7	240	$139.3	120	$73.7	83	$54.0	803	$444.7
B1	12	-	6	-	12	-	6	-	5	-	41	-
C1	12		6		12		6		5		41	-
Total		$141.0		$36.7		$139.3		$73.7		$54.0		$444.7

Basis of Cost Estimate: To be returned to the depot on a mandatory basis if the engine fails inspection procedures of AWB-126 and/or AWC-129. Also all failed sustainers will have their engines removed and this modification installed while at the depot.

Implementation/Installation Activity: To be accomplished at the Depot level (MDAC and TCAE).

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-1628R1C1) (AWC-234 and AWC-234 Part 2) Replace Capsule Fin Blades

Description/Justification: Change USN Capsule Fin from a casting to a machined part to provide adequate deployment strength; change finish requirements for after body components to improve corrosion resistance; add serialization to the nose, mainbody, and aft body assemblies to provide improved quality assurance tracking.

Development Status: ECP approved and implemented.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	55	$664.5	29	$259.9	38	$539.1	-	-	-	-	122	$1,563.5
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total		$664.5		$259.9		$539.1						$1,563.5

Basis of Cost Estimate: WPNSTA install not later than next calendar/phase inspection.

Implementation/Installation Activity: To be accomplished at the Intermediate level.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-1824) (AWC-260) Canister Enclosure Installation Improvements

Description/Justification: Modification of canister flangible end covers and attached hardware to improve canister maintainability. Color changes from red to gray as well.

Development Status: ECP approved and implemented.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	342	$18.7	251	$57.7	232	$58.6	-	-	-	-	825	$135.0
Other	73	$3.0	-	-	-	-	-	-	-	-	73	$3.0
Total		$21.7		$57.7		$58.6						$138.0

Basis of Cost Estimate: Will be performed on Light Weight and Grade "B" canisters when fleet returns are being processed through the WPNSTA. Other costs in FY 1983 are for shipboard paint.

Implementation/Installation Activity: To be accomplished at the Intermediate level.

WEAPONS PPOCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-2306R2) (AWC-256) Block 1C MOD

Description/Justification: The Block 1C Program modifies the missile guidance unit to allow pre-launch selection of flight path and terminal homing mode. The modification will alter the missiles trajectory to improve survivability; provide radar search pattern options for target selectivity; provide the capability for trajectory waypoints; end provide terminal trajectory options tailored to threat capabilities.

Development Status: ECP has been approved.

Scope of Program: (Dollers in Thousands)

	Prior Yeers		FY-1984		FY-1985		FY-1986		Future Yeers		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	478	$3,448.9	363	$2,724.1	430	$3,495.9	42	$361.5	-	-	1313	$10,030.4
Other	9	$819.0	6	$580.2	9	$922.5	-	-	-	-	24	$2,321.7
Total		$4,267.9		$3,304.3		$4,418.4		$361.5				$12,352.1

Basis of Cost Estimate: Assumes mandetory return of guidence sections by the WPNSTA to the Depot. Other cost include 24 MGUs for rotable pool to support MOD program. Assumes that 11 MGUs from ECP-1990/AWC-219 "Block 1B" MOD will be upgraded end elso utilized ee part of the rotable pool for a total rotable pool of 35 MGUs.

Implementation/Inetallation Activity: To be eccomplished et the Depot end Intermediate levels.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-2306-1R1) (AWC-263) Sustainer JP-10 Modification

Description/Justification: Modifies the sustainer section to utilize JP-10 fuel in lieu of JP-5 for extending the range of the missile.

Development Status: ECP has been approved and implemented.

Scope of Program: (Dollars in Thousands)

		Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
		Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement													
Kits	D	180	$69.6	19	$8.3	21	$9.8	-	-	-	-	220	$87.7
Other	I	156	$60.3	292	$129.6	328	$153.8	-	-	-	-	776	$343.7
Total		336	$129.9	311	$137.9	349	$163.6					996	$431.4

Basis of Cost Estimate: This modification will be performed as part (2) of "Block 1C Renge Modification" . This modificetion will be performed at the WPNSTAs. The depot only performs for failed sustainers returning from the WPNSTA.

Implementation/Installation Activity: To be accomplished at the Depot and Intermediate levels.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-2425C2) (AWC-268 and -269) Improve Capsule Resistance to Corrosion

Description/Justification: Capsule environmental exposure causing high failure rates. This ECP will provide an anodize hardcoat, guide lug isolation to prevent galvanic coupling, "O" ring lubrication to increase protection from sea water and protection for fasteners, screws and umbilical receptacle attachment inserts.

Development Status: ECP has been approved and implemented.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits												
(AWC-268)	-	-	96	$78.7	79	$70.0	29	$27.7	-	-	204	$176.4
(AWC-269)	-	-	96	$9.1	79	$8.1	29	$3.2	-	-	204	$20.4
Total				$87.8		$78.1		$30.9				$196.8

Basis of Cost Estimate: All capsules will be retrofit as processed thru the WPNSTA during routine fleet return processing. AWC-268 will be performed on capsule mainbodies, AWC-269 will be performed on capsule aft bodies.

Implementation/Installation Activity: To be accomplished at the Intermediate level.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modificetion Title: (ECP-2499C1) (AWC-TBD) HM-1 Seeker Modification

Description/Justification: Provides USN with increased capabilities of the UK seeker plus modifications to improve clutter rejection capability and passive track capability resulting in improved performance in an ECM environment. The HM-1 Seeker Modification corrected a deficiency in the 642AS3700-3 seeker.

Development Status: ECP approval expected in January 1984.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits												
Mod of Kits	-	-	110	$22.6	-	-	-	-	-	-	110	$22.6
-1, -2 Kits	-	-	47	$305.5	-	-	-	-	-	-	47	$305.5
-3 Kits	-	-	69	$142.8	103	$229.3	165	$391.0	511	$1,504.5	848	$2,267.6
Other	-	-	16	$3,031.4	-	-	—	—	—	—	16	$3,031.4
Total				$3,502.3		$229.3		$391.0		$1,504.5		$5,627.1

Basis of Cost Estimate: ECP 1471R1 updated 642AS3700-1 seekers to 642AS3700-2 seekers, but has been superceded by ECP 1471R2 which updates -1 directly to -3 seekers. ECP-1812R2 updates 642AS3700-2 seekers to 642AS3700-3 seekers. Assumes retrofit only during repair until second half of the FY 1985, then mandatory retrofit of the balance concurrent with Block '1C' MGU modification. ECP-2499C1 (AWC-TBD) will supercede AWC-152. Depot to retrofit 3700-3 seekers only upon failure. Other costs in FY 1984 include 16 seekers ($3,031.4K) for rotable pool, to support the MOD program.

Implementation/Installetion Activity: To be accomplished et the Depot level.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-7175R1) (AWC-264) Improved Fuze

Description/Justification: Makes warhead resistent to terminal defense systems.

Development Status: ECP approved and implemented.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	236	$3,877.8	318	$5,740.3	341	$5,930.0	530	$8,325.7	265	$4,481.1	1690	$29,354.9
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total		$3,877.8		$5,740.3		$5,930.0		$8,325.7		$4,481.1		$29,354.9

Basis of Cost Estimate: Assumes installation by WPNSTA during recertification of fleet return missiles. Beginning in FY-85 ECP 7039R4/AWC-228 "MK 44 MOD 1 Fuze Boosters" will be installed concurrently with this retrofit.

Implementation/Installation Activity: To be accomplished at the Intermediate level.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-7175R1) (AWC-264) Pressure Probe Plate (Training Shapes only)

Description/Justification: Simulated tactical pressure probe plate required on trainers.

Development Status: ECP approved and implemented.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	-	-	89	$6.2	-	-	-	-	89	$6.2
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total						$6.2						$6.2

Basis of Cost Estimate: NOSIH Fleet activities install on AIR, ASROC and TARTAR training shapes prior to reissue.

Implementation/Installation Activity: To be accomplished at the Intermediate level.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-82-3R1) (AWC-TBD) MK 607 MOD 0 Conteiner Correction of Water Intrusion

Description/Justification: Prevents water intrusion through the threads of the bolts securing shock mounts to the lower shell. Mod requires a new thread seal (2614052-1) which has been tested and proven effective in sealing these leaks and a replacement gasket.

Development Status: ECP in development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	156	$16.6	72	$8.1	36	$4.3	-	-	264	$29.0
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total				$16.6		$8.1		$4.3				$29.0

Basis of Cost Estimate: WPNSTA install prior to next conteiner issue.

Implementation/Installation Activity: To be accomplished at the Intermediate level.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-TBD) (AWC-TBD) Reliability and Maintainability Improvement

Description/Justification: To be utilized to retrofit reliability and maintainability missile ECPs that are projected to be submitted as a result of the warranty program. The contractor, due to the warranty provisions of the contract, will incorporate changes to improve reliability and maintainability of the missile system. This is a budgetary estimate of the costs of those ravisions.

Development Status: In process.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	152	$218.0	187	$284.3	216	$347.8	600	$1,068.0	1155	$1,918.1
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total				$218.0		$284.3		$347.8		$1,068.0		$1,918.1

Basis of Cost Estimate: Based on FY-81 actual approved ECPs prorated for increasing potentially defective units due to increasing inventory each year.

Implementation/Installation Activity: To be accomplished at the Depot and Intermediate levels.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-TBD) (AWC-TBD) Frangible Radome (Training Shapes only)

Description/Justification: Modifies the current training shape radome which is not frangible in order to simulate tactical missile radomes.

Development Status: In development. ECP expected in FY-84.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement	-	-	-	-	234	$128.0	-	-	-	-	234	$128.0
Kits	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	$128.0	-	-	-	-	-	$128.0
Total												

Basis of Cost Estimate: NOSIH install on training shapes prior to reissue.

Implementation/Installation Activity: To be accomplished at the Depot and Intermediate levels.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-2469) (SEC-TBD) Test Set-Simulator (TS-3519/DSM) Modification of the Block 1C Missile

Description/Justification: To modify the HARPOON Aircraft Command Launch Control Set (HACLCS) Test Set Simulator (TSS) to test the Block 1C Missile.

Development Status: In development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	12	$240.0	7	$148.4	-	-	-	-	19	$388.4
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total				$240.0		$148.4						$388.4

Basis of Cost Estimate: To be installed upon receipt of retrofit kit.

Implementation/Installation Activity: To be accomplished at the Depot level.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-TBD) (SEC-TBD) MSTS CMRS Corrections

Description/Justification: To correct the Missile System Test Set (MSTS) Calibration/Measurement Requirements Summary (CMRS) discrepancies.

Development Status: In development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	-	-	5	$1,602.0	4	$1,364.9	-	-	9	$2,966.9
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total						$1,602.0		$1,364.9				$2,966.9

Basis of Cost Estimate: Retrofit kits to be installed upon receipt.

Implementation/Installation Activity: To be accomplished at PMTC, Point Mugu and at both the Depot and Intermediate levels.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-TBD) (SEC-TBD) Booster Motor Test Set (BMTS) Calibration and Measurement Requirements Summary (CMRS) Corrections

Description/Justification: To correct BMTS CMRS discrepancies.

Development Status: In development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	-	-	3	$640.8	3	$682.5	-	-	6	$1,323.3
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total						$640.8		$682.5				$1,323.3

Basis of Cost Estimate: To be installed upon receipt of retrofit kits.

Implementation/Installation Activity: To be accomplished at PMTC, Point Mugu and at both the Depot and Intermediate levels.

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/B/UGM-84

Missile Modification Title: (ECP-TBD) (SEC-TBD) Capsule/Canister Test Set Calibration Measurements Requirements Summary (CMRS) Corrections

Description/Justification: During FY-82 and FY-83 McDonnell Douglas and U.S. Navy tests were conducted to determine if the Missile System Test tolerances were tight enough to accurately check all missile parameters. The test showed defects in the MSTS that could result in failing a good missile or passing a bad one. This modification will correct the problem by correcting CAP/CAN Test Set Calibration Measurements Requirements Summary (CMRS) corrections.

Development Status: In development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	-	-	3	$640.8	3	$682.5	-	-	6	$1,323.0
Other	-	-		-	-	-	-	-	-	-	-	-
Total						$640.8		$682.5				$1,323.3

Basis of Cost Estimate: To be installed upon receipt of retrofit kits.

Implementation/Installation Activity: To be accomplished at PMTC, Point Mugu and both Depot and Intermediate levels.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-TBD) (SEC-TBD) Reliability and Maintainability (SE)

Description/Justification: Based on historical engineering changes funds must be budgeted for unplanned modifications necessitated by product improvement efforts.

Development Status: In process.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	50	$95.0	50	$95.0	50	$95.0	200	$380.0	350	$665.0
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total				$95.0		$95.0		$95.0		$380.0		$665.0

Basis of Cost Estimate: To be installed upon receipt of retrofit kits.

Implementation/Installation Activity: To be accomplished at the Depot and Intermediate levels.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-TBD) (SEC-TBD) Improved Seeker Support Equipment MOD

Description/Justification: Modifies the MSTS and ancillary support equipment to be able to test the new 642AS370-4 seeker.

Development Status: In development.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
AACTS	-	-	-	-	-	-	1	$274.5	-	-	1	$274.5
AITS	-	-	-	-	-	-	1	$483.2	-	-	1	$483.2
RF/IF	-	-	-	-	-	-	1	$244.6	-	-	1	$244.6
PWS TS	-	-	-	-	-	-	1	$161.1	-	-	1	$161.1
SITS	-	-	-	-	-	-	1	$286.3	-	-	1	$286.3
SRA TS	-	-	-	-	-	-	1	$89.5	-	-	1	$89.5
TEMP TS	-	-	-	-	-	-	1	$103.4	-	-	1	$103.4
VIB TS	-	-	-	-	-	-	1	$119.3	-	-	1	$119.3
A3	-	-	-	-	-	-	1	$357.9	-	-	1	$357.9
A4	-	-	-	-	-	-	1	$357.9	-	-	1	$357.9
MSTS	-	-	-	-	-	-	1	$162.5	-	-	1	$162.5
Total								$2,640.2				$2,640.2

Basis of Cost Estimate: To be installed upon receipt of retrofit kits.

Implementation/Installation Activity: To be accomplished at PMTC, Point Mugu and both Depot and Intermediate levels.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: HARPOON A/R/UGM-84

Missile Modification Title: (ECP-TBO) (SEC-TBO) Test Set Simulator Product Improvement Program

Description/Justification: This modification will provide new sealing techniques to eliminate water intrusion problems now encountered; it will provide a dimmer switch capability to improve utility of the TSS during night flight deck operations, and will provide an improved cable connector repairable at I level that wi[illegible]nimize current cable damage problems.

Development Status: In development.

Scope of Program: (Dollars ir Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	-	-	-	-	-	-	50	$1,590.0	-	-	50	$1,590.0
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total								$1,590.0				$1,590.0

Basis of Cost Estimate: To be installed upon receipt of retrofit kits.

Implementation/Installation Activity: To be accomplished at the Depot level.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: STANDARD MR - RIM-66B

Missile Modification Title: MK-56 Dual Thrust Rocket Motor Modification.

Description/Justification: MK-56 Rocket Motor modification will update early production motors by removing the old propellant, refurbishing the chamber and reloading with the new more reliable stable sustain propellant.

Development Status: Complete.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	604	$9,351	135	$2,600	135	$2,800	107	$2,521	310	$9,616	1291	$26,888
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total		$9,351		$2,600		$2,800		$2,521		$9,616		$26,888

Basis of Cost Estimate: Based on current procurement information.

Implementation/Installation Activity: Incorporation will be performed by Aerojet. Production leadtime is 18 months. The regrain production schedule is modified to consolidate all regrain motors in the same production lots with separate handling of new motor lots. This reduces logistic concerns of Fleet returned motors. This programming also alleviates any production breaks between new motor contracts.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: STANDARD ER-RIM-67A

Missile Modification Title: MK 7 Sustainers to MK-30's

Description/Justification: The modification of MK 7 to MK 30 consists of removal of old propellant, refurbishment and modification of metal parts as necessary, manufacture to a new propellant grain and loading. The modification will increase reliability, service life and performance of the sustainer and missile.

Development Status: Complete.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	135	$2,430	44	$870	67	$1,500	62	$1,631	198	$6,684	506	$13,115
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total		$2,430		$870		$1,500		$2,631		$6,684		$13,115

Basis of Cost Estimate: Based on current modifications operations. Material based on present procurement information and cost estimates for modified chemicals and hardware.

Implementation/Installation Activity: Incorporation will be part of the MK-30 program at Atlantic Research. Production leadtime will be 12 months.

WEAPONS PROCUREMENT, NAVY
MISSILE MODIFICATION

Appropriation: Weapons Procurement, Navy

Missile Type: STANDARD ER-RIM-67A

Missile Modification Title: Modifications to the MK-12 Booster.

Description/Justification: This part of the STANDARD Missile-1 Reliability Improvement Program.

Development Status: Complete.

Scope of Program: (Dollars in Thousands)

	Prior Years		FY-1984		FY-1985		FY-1986		Future Years		Total Program	
	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
Procurement												
Kits	267	$6,548	53	$1,630	60	$1,900	59	$2,048	-	-	439	$12,126
Other	-	-	-	-	-	-	-	-	-	-	-	-
Total		$6,548		$1,630		$1,900		$2,048				$12,126

Basis of Cost Estimate: Labor based on current regraining operations. Material based on present procurement information and cost estimates for modified chemicals and hardware.

Implementation/Installation Activity: Incorporation will be part of the MK-12 Booster regraining program at NOS, Indian Head. Production leadtime will be 18 months.