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DEPARTMENT OF THE NAVY
JUSTIFICATION OF ESTIMATES
FOR FISCAL YEAR 1984 (U)

SUBMITTED TO CONGRESS JANUARY 1983

PROCUREMENT

WEAPONS PROCUREMENT, NAVY

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PROCUREMENT WPN
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TORPEDOES

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

THIS VOLUME CONTAINS JUSTIFICATION MATERIAL SUPPORTING THE PRESIDENT'S FISCAL 1984 BUDGET PRESENTATION TO CONGRESS CONCERNING PROCUREMENT, SPECIFICALLY WEAPONS PROCUREMENT, NAVY

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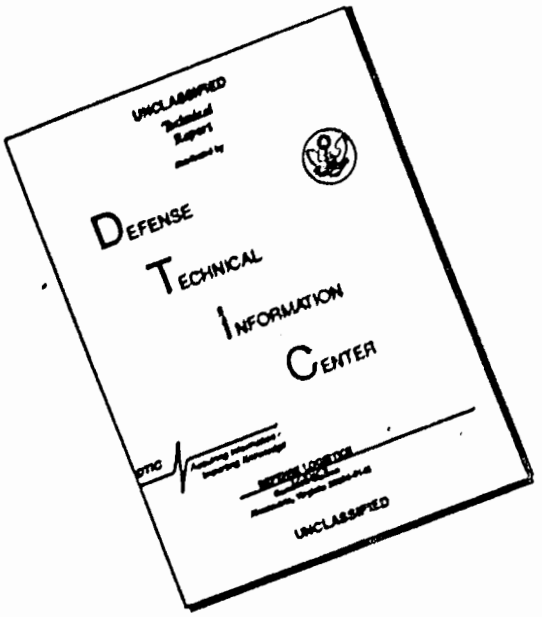

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DEPARTMENT OF THE NAVY
WEAPONS PROCUREMENT, NAVY

JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1984 and 1985

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WEAPONS PROCUREMENT, NAVY

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; [$3,561,700,000, of which $124,700,000, shall be available only for the purchase of Mark-46 torpedoes under a multiyear contract] $4,028,600,000, to remain available for obligation until September 30, [1985, distributed as follows: For missile programs, $2,844,200,000; for the MK-48 torpedo program, $119,300,000; for the MK-46 torpedo program, $124,700,000; for the MK-60 torpedo program. $133,200,000; for the MK-30 mobile target program, $19,400,000; for the MK-38 minimobile target program, $2,300,000; for the antisubmarine rocket (ASROC) program, $10,100,000; for modification of torpedoes, $76,500,000; for the torpedo support equipment program, $66,900,000; for the MK-15 close in weapons system program, $118,740,000; for the MK-75 76-millimeter gun mount program, $10,700,000; for the MK-19 gun mount program, $400,000; for the 20-millimeter gun mount program, $400,000; for the modification of guns and gun mounts, $19,700,000; for the guns and gun mounts support equipment program, $17,460,000; and reductions of $1,100,000 for consultants, studies and analyses, and $1,200,000 for personnel security clearances] 1986. (10 U.S.C. 5012, 5031, 7201; Department of Defense Appropriation Act, 1983; additional authorizing legislation to be proposed.)

Program & Financing (in thousands of dollars) Summary

Identification code 17-1507-0-1-051

		Budget plan (amounts for procurement actions programed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
	Program by activities:						
	Direct:						
	1. Ballistic missiles	925,700	885,500	515,000	764,671	537,035	866,053
	2. Other missiles	1,578,211	2,062,600	2,528,900	1,421,555	1,812,950	2,353,012
	3. Torpedoes and related equipment	475,095	514,500	703,300	447,611	486,601	645,834
	4. Other weapons	190,634	161,500	161,400	253,570	132,244	159,406
	Total direct	3,165,600	3,435,100	4,028,600	2,907,405	3,370,833	3,836,355
	Reimbursable program	47,787	5,000	5,000	2,188	54,408	4,194
10.0001	Total	3,213,387	3,440,100	4,033,600	2,909,564	3,425,241	3,840,349
	Financing:						
	Offsetting collections from:						
11 0001	Federal funds	-57,658	-1,000	-1,000	-37,147	-1,000	-1,000
13 0001	Trust funds	-10,217	-4,000	-4,000	-7,536	-4,000	-4,000
14 0001	Non-federal sources	-22	.....	.....	236	.....	.....
17.0001	Recoveries of prior year obligations(-)	.....	.....	.....	-6,083	.....	.....
	Unobligated balance available, start of year:						
21 4001	For completion of prior year budget plans	.....	.....	.....	-1,048,772	-1,327,430	-1,342,269
21 4002	Available to finance new budget plans	-27,897	.....	.....	-27,897	.....	.....
21 4003	Reprograming from FY to prior year budget plan	-25,905	.....	.....	.....	.....	.....
23 4001	Unobligated balance transferred to other accounts	30,027	.....	.....	30,027	.....	.....
24 4001	Unobligated balance available, end of year	.....	.....	.....	1,327,430	1,342,269	1,535,340
25 0001	Unobligated balance lapsing	23,775	.....	.....	23,775	.....	.....
39 0001	Budget authority	3,165,600	3,435,100	4,028,600	3,165,600	3,435,100	4,028,600
	Budget authority:						
40 0001	Appropriation	3,207,100	3,361,700	4,028,600	3,207,100	3,361,700	4,028,600
40 0002	Reduction pursuant to P.L. 97-377	.....	-20,100	.....	.....	-20,100	
41 0001	Transferred to other accounts(-)	-41,500	-106,500	.....	-41,500	-106,500	.....
43 0001	Appropriation (adjusted)	3,165,600	3,435,100	4,028,600	3,165,600	3,435,100	4,028,600
	Relation of obligations to outlays						
71 0001	Obligations incurred, net				2,865,120	3,420,241	3,835,549
72 4001	Obligated balance, start of year				2,817,778	5,244,316	3,866,837
74 4001	Obligated balance, end of year				-3,244,316	-3,866,857	-4,491,206
77 0001	Adjustments in expired accounts				11,818		
78 0001	Adjustments in unexpired accounts				-6,083		
90 0001	Outlays				2,444,316	2,775,700	3,203,400

Object Classification (in thousands of dollars) Summary

Identification code 17-1507-0-1-051		1982 actual	1983 est	1984 est
	Direct obligations:			
122.001	Transportation of things	....	1,020	1,962
	Other services:			
125.003	Contracts	31,423	16,908	19,166
125.004	Other	47,135	54,100	57,498
126.001	Supplies and materials	2,683,369	3,098,409	3,543,068
131.001	Equipment	145,478	199,516	214,661
199.001	Total direct obligations	2,907,405	3,370,633	3,836,355
	Reimbursable obligations:			
228.001	Supplies and materials	1,993	54,157	3,943
231.001	Equipment	166	251	251
299.001	Total reimbursable obligations	2,159	54,408	4,194
999.901	Total obligations	2,909,564	3,425,241	3,840,549

Program and Financing (in thousands of dollars) 1980 Fiscal year program

Identification code 17-1507-0-1-051	Budget plan (amounts for procurement actions programed)			Obligations		
	1982 actual	1983 est.	1984 est.	1982 actual	1983 est	1984 est
Program by activities:						
Direct:						
1. Ballistic missiles				98,466		
2. Other missiles				46,950		
3. Torpedoes and related equipment				17,034		
4. Other weapons				2,687		
Total direct				167,139		
Reimbursable program				1,924		
10.0001 Total				169,003		
Financing:						
Offsetting collections from:						
11.0001 Adjustment to prior year federal fund ud				218		
13.0001 Adjustment to prior year trust fund ore				1,015		
17.0001 Recoveries of prior year obligations(-)				-5,983		
Unobligated balance available, start of year:						
21.4001 For completion of prior year budget plans				-100,215		
21.4002 Reprograming from or to prior year budget plan	-25,908					
23.4001 Unobligated balance transferred to other accounts	2,130			2,130		
25.0001 Unobligated balance lapsing	23,778			23,778		
40.0001 Budget authority						

Weapons Procurement, Navy 31 JAN 83

Program and Financing (in thousands of dollars) 1981 Fiscal year program

Identification code 17-1507-0-1-051	Budget plan (amounts for procurement actions programed)			Obligations		
	1982 actual	1983 est.	1984 est	1982 actual	1983 est	1984 est
Program by activities:						
Direct						
1. Ballistic missiles				28,223	110,863	
2 Other missiles				351,988	164,155	
3. Torpedoes and related equipment				90,149	18,606	
4 Other weapons				76,628	8,462	
Total direct				544,988	302,100	
Reimbursable program					7,440	
10.0001 Total				544,988	309,540	
Financing:						
Offsetting collections from:						
11.0001 Adjustment to prior year federal fund orde				196		
13.0001 Adjustment to prior year trust fund orders				1,808		
14.0001 Adjustment to non-federal sources				281		
17.0001 Recoveries of prior year obligations(-)				-100		
Unobligated balance available, start of year:						
21.4001 For completion of prior year budget plans				-858,557	-309,548	
21.4002 Available to finance new budget plans	-27,897			-27,897		
23.4001 Unobligated balance transferred to other accounts	27,897			27,897		
24.4001 Unobligated balance available, end of year				309,548		
40.0001 Budget authority						

Weapons Procurement, Navy — 31 JaN 83

Program and Financing (in thousands of dollars) — 1982 Fiscal year program

Identification code 17-1507-0-1-051	Budget plan (amounts for procurement actions programed)			Obligations		
	1982 actual	1983 est.	1984 est.	1982 actual	1983 est	1984 est
Program by activities:						
Direct:						
1. Ballistic missiles	925,700			680,160	141,112	124,408
2. Other missiles	1,578,211			1,020,415	343,778	212,020
3. Torpedos and related equipment	473,055			340,428	99,342	33,285
4. Other weapons	190,034			174,258	7,625	8,754
Total direct	3,165,800			2,195,278	591,855	378,467
Reimbursable program	47,797			235	46,988	594
10.0001 Total	3,213,397			2,195,513	638,823	379,061
Financing:						
Offsetting collections from:						
11.0001 Federal funds	-37,558			-37,558		
13.0001 Trust funds	-10,217			-10,217		
14.0001 Non-federal sources	-22			-22		
21.4501 Unobligated balance available, start of year					-1,017,684	-379,061
24.4001 Unobligated balance available, end of year				1,017,684	379,061	
39.0001 Budget authority	3,165,800			3,165,800		
Budget authority:						
40.0001 Appropriation	3,207,100			3,207,100		
41.0001 Transferred to other accounts(-)	-41,300			-41,300		
43.0001 Appropriation (adjusted)	3,165,800			3,165,800		

Weapons Procurement, Navy

31 JaN 83

Program and Financing (in thousands of dollars)

1983 fiscal year program

Identification code 17-1507-0-1-051	Budget plan (amounts for procurement actions programed)			Obligations		
	1982 actual	1983 est.	1984 est.	1982 actual	1983 est	1984 est
Program by activities:						
Direct:						
1. Ballistic missiles		698,500			585,060	20,895
2. Other missiles		2,062,500			1,435,010	384,059
3. Torpedoes and related equipment		514,600			370,056	113,256
4. Other weapons		151,300			116,137	35,486
Total direct		3,435,100			2,476,872	553,696
Reimbursable program		5,000				3,600
10.0001 Total		3,440,100			2,476,872	557,296
Financing:						
Offsetting collections from:						
11.0001 Federal funds		-1,000			-1,000	
13.0001 Trust funds		-4,000			-4,000	
21.4001 Unobligated balance available, start of year						383,238
24.4001 Unobligated balance available, end of year					883,228	405,038
39.0001 Budget authority		3,435,100			3,435,100	
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(-)		-106,500			-106,500	
43.0001 Appropriation (adjusted)		3,435,100			3,435,100	

Program and Financing (in thousands of dollars) 1984 Fiscal year program

Identification code 17-1507-0-1-051	Budget plan (amounts for procurement actions programed)			Obligations		
	1982 actual	1983 est	1984 est.	1982 actual	1983 est	1984 est
Program by activities:						
Direct:						
1. Ballistic missiles			615,000			522,750
2. Other missiles			2,528,900			1,756,933
3. Torpedos and related equipment			703,300			169,343
4 Other weapons			191,400			135,166
Total direct			4,028,600			2,904,192
Reimbursable program			5,000			
10.0001 Total			4,033,600			2,904,192
Financing:						
Offsetting collections from:						
11.0001 Federal funds			-1,000			-1,000
15.0001 Trust funds			-4,000			-4,000
24.4001 Unobligated balance available, end of year						1,129,408
40.0001 Budget authority			4,028,600			4,028,600

WEAPONS PROCUREMENT, NAVY

DETAILED JUSTIFICATION MATERIAL

Appropriation Introduction
(In Thousands of Dollars)

	FY 1984 Estimata	FY 1985 Estimata
Appropriation	4,028,600	5,257,900
Total Direct Obligations	3,836,355	-
Total Direct Budgat Plan	4,028,600	5,257,900

Tha Weapons Procurement, Navy appropriation financas tha procurement of ballistic, stratagic and tactical missilas, torpedoes, mines, guns and support aquipment for Naval, Coast Guard and Marine Aviation forces. Support equipment includas: aquipment for modification of in-service missilas, torpedoes, mines, guns, and gun mounts; aarial and underwater targets used in training exarcisas and evaluation; hardwara for Navy Navigation and defense Meteorological satallita programs; spares parts; ground support and training aquipment; and industrial facilities and tools requirad for tha production and maintenance of missiles, torpedoes, mines and guns.

Fiscal Year 1984 and 1985 Highlights

The budget programs for the Weapons Procurement, Navy appropriation total $4,028.6M in FY 1984 and $5,257.9M in FY 1985. Significant features of these requests are:

(a) A TRIDENT Ballistic Missile request of $587.2M for 52 missiles in FY 1984. This will be the last procurement of the TRIDENT I (C-4) missile. Tha budget reflects the initial funding requirement for the follow-on TRIDENT II (D-5) missile beginning in FY 1985.

(b) $27.8M in FY 1984 and $68.6M in FY 1985 for the POSEIDON program, sparas and repair parts, ballistic missila modifications, support equipment facilities, and the Navigational Satellite program.

(c) A TOMAHAWK Cruise Missile request of $350.1M for 124 missiles in FY 1984 and $666.4M for 353 missiles in FY 1985 including $22.7M and $41.5M for advance procurement to support the FY 1985 and FY 1986 procurements respectively.

(d) Other Tactical Missile procurements including a FY 1984 request of $153.7M for 695 SPARROWs, $29.6M for 350 SIDEWINDERs, $320.8M for 290 PHOENIXs, $294.3M for 330 for HARPOONs, $192.9M for 230 HARMs, $45.2M for 165 LASER MAVERICKS, $17.1M for 219 HELLFIREs, and $595.17M for 1,190 STANDARDs, and a FY 1985 request which accelerates the Tactical Missile procurement over the FY 1984 level by procuring 1,085 SPARROWs for $209.5M, 1,000 SIDEWINDERs for $64.7M, 464 PHOENIXs for $438.3M, 330 HARPOONs for $322.3M, 539 HARMs for $314.3M, 185 LASER MAVERICKs for $67.1M, [illegible] HELLFIREs for $20.5M, 100 Imaging Infrated MAVERICKs (initial production) for $29.8M, 1,200 LLLGBs for $35.0M, and 1,800 STANDARDs for $942.0M.

(e) $415.8M in FY 1984 and $382.3M in FY 1985 for Aerial Targets, Fleet Satellite Communications, 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 $218.1M for 1,200 MK-46 torpedoes in FY 1984 and $295.3M for 1,505 MK-46 torpedoes in FY 1985, as well as advance procurement of $20.9M in FY 1984 in support of the multi-year procurement of this weapon; a request of $124.6M for 144 MK-48 torpedoes in FY 1984 and $135.3M for 144 MK-48 torpedoes in FY 1985, a MK-60 CAPTOR mine request of $105.4M for 300 mines in FY 1984 and $157.6M for 475 mines in FY 1985; and procurement of 7 MK-30 Mobile Targets in FY 1984 for $14.7M and 6 in FY 1985 for $11.2M under a proposed multi-year procurement, including a requirement for $7.4M advance procurement in FY 1984; and MK-38 Mini Mobile Targets, initial modification for MK-67 Mobile Mine and related torpedo and mine modification programs, spares and repair parts, and torpedo support totaling $203.2M in FY 1984 and $361.2M in FY 1985.

(g) $181.4M in FY 1984 and $261.5M in FY 1985 for guns, gun mounts and related support equipment which primarily funds the Close-In-Weapons Systems procurement of 42 systems in FY 1984 and 50 in FY 1985.

Financing

The FY 1984 plan of $4,028.6M and the FY 1985 plan of $5,257.9M for this appropriation are to be financed by new obligational authority.

Summary of Requirements
(IN Thousands of Dollars)

	FY 1982 Actual	FY 1983 Estimate	FY 1984 Estimate
1. Ballistic Missiles	925,700	696,500	615,000
2. Other Missiles	1,576,211	2,062,500	2,528,900
3. Torpedoes and Related Equipment	473,055	514,800	703,300
4. Other Weapons	190,634	161,300	181,400
TOTAL Direct Program	3,165,600	3,435,100	4,028,600
Reimbursable Program	47,797	5,000	5,000
TOTAL Program Requirements	3,213,397	3,440,100	4,033,600
Less: Portion of program to be obligated in subsequent fiscal year	1,017,884	963,228	1,129,408
Plus: Obligations incurred against prior year program funds	714,051	948,369	936,357
TOTAL Obligations	2,909,564	3,425,241	3,840,549

Budget Activity 1: Ballistic Missiles

($ in thousands)
FY 1985 Estimate - $432,200
FY 1984 Estimate - $615,000
FY 1983 Estimate - $696,500
FY 1982 Actuals - $925,700

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 $615.0 million requested in FY 1984, $588.2 million is for ballistic missiles, $9.7 million is for ballistic missile modifications and $17.1 million is for support equipment and facilities.

Of the $432.2 million requested in FY 1985, $373.0 million is for ballistic missiles, $20.6 million is for ballistic missile modifications and $38.6 million is for support equipment and facilities.

Ballistic Missiles

($ in thousands)
FY 1985 Estimate - $373,000
FY 1984 Estimate - $588,200
FY 1983 Estimate - $672,500
FY 1982 Estimate - $895,500

Of the $588.2 million requested for ballistic missiles in FY 1984 $1.0 million is for POSEIDON and $587.2 million is for TRIDENT.

Of the $373.0 million requested for ballistic missiles in FY 1985, $9.4 million is for POSEIDON, $204.6 million is for TRIDENT I, $135.6 million is for TRIDENT II and $23.4 million is for TRIDENT II Advance Procurement requirements.

Budget Activity 1: Ballistic Missiles

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FY 1983 Estimate - $696,500
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Ballistic Missiles

($ in thousands)
FY 1985 Estimate - $373,000
FY 1984 Estimate - $588,200
FY 1983 Estimate - $672,500
FY 1982 Estimate - $895,500

Of the $588.2 million requested for ballistic missiles in FY 1984 $1.0 million is for POSEIDON and $587.2 million is for TRIDENT.

Of the $373.0 million requested for ballistic missiles in FY 1985, $9.4 million is for POSEIDON, $204.6 million is for TRIDENT 1, $135.6 million is for TRIDENT II and $23.4 million is for TRIDENT II Advance Procurement requirements.

POSEIDON Missile

($ in thousands)

	FY 1984		FY 1985	
	QTY	Amount	QTY	Amount
Procurement Cost	-	$ 1,000	-	$ 9,400

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 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 Anit-Ballistic Missile (ABM) development programs. Procurement has been programmed to sustain deliveries and support commensurate with POSEIDON Submarine deployment schedules.

The POSEIDON procurement request of $1.0 million in FY 1984 is for missile components required for ongoing weapon system support. The request is lower than the FY 1984 required funding as a result of the decision to maximize utilization of already appropriated funds by applying prior year unobligated balances in support of FY 1984 requirements.

TRIDENT I Missile

($ in thousands)

	FY 1984		FY 1985	
	QTY	Amount	QTY	Amount
Procurement Cost	52	$587,200	-	$204,600

The TRIDENT mission is to provide an undersea missile system in order to ensure that the U.S. continues to maintain a credible detettent independent of forseeable threats in the 1980's and beyond. To accomplish this mission, the TRIDENT I 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 is to provide TRIDENT I 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.

The FY 1984 TRIDENT I missile request of $587.2 million represents the final year of the TRIDENT I missiles procurement to support both the TRIDENT I and TRIDENT I Backfit systems. This funding provides $458.8 million for missile production, $89.7 million for production support costs and $38.6 million for reentry system components.

The FY 1985 TRIDENT I missile request of $204.6 million provides for the procurement of special purpose flight test instrumentation, reentry system components and ongoing weapon system support.

Within the current TRIDENT I missile program of 570 missiles between FY 1977 and FY 1984, missile production deliveries are scheduled at quantities necessary to maintain quality, a smooth production rate and 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 both TRIDENT and Backfit submarines, and will provide additional missiles to continue the Fleet Return and Evaluation Program (FREP) and Demonstration and Shakedown Operations (DASO)/Follow-On Operational Test (FOT) test programs.

TRIDENT II Missile

($ in thousands)

	FY 1984		FY 1985	
	QTY	Amount	QTY	Amount
Procurement Cost	-	-0-	-	$135,600

These funds are planned in support of the procurement of the new TRIDENT II missile with greater range/payload capability and improved accuracy. The FY 1985 TRIDENT II Missile request of $135.6 million provides for production planning, initial outfitting and reentry system requirements.

TRIDENT II MISSILE ADVANCE PROCUREMENT

($ in thousands)

	FY 1984	FY 1985
	Amount	Amount
Advance Procurement Cost	-0-	$23,400

These funds are planned in support of the procurement of advance procurement components for the new TRIDENT II missile with greater range/payload capability and improved accuracy.

Modification of Missiles

($ in thousands)

FY 1985 Estimate - $20,600
FY 1984 Estimate - $ 9,700
FY 1983 Estimate - $ 7,500
FY 1982 Actuals - $10,100

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 has been defined and the proposal is subjected to severe screening to determine a positive advantage to the system.

POSEIDON Modifications

($ in thousands)

FY 1984	FY 1985
Amount	Amount
$9,700	$20,600

The FY 1984 request includes the final year of funding for the alternate Nose Cap Exchange SPALT and the initial funding requirement for the C3 Nozzle SPALT. The FY 1985 request continues funding of the C3 Nozzle SPALT.

Support Equipment and Facilities

($ in thousands)

FY 1985 Estimate	$38,600
FY 1984 Estimate	$17,100
FY 1983 Estimate	$16,500
FY 1982 Actuals	$20,076

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

Spares and Repair Parts

($ in thousands)

	FY 1984 Amount	FY 1985 Amount
Procurement Cost	$ 1,800	$ 6,300

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 1984 and FY 1985 requests include replenishment spares for POSEIDON and TRIDENT I missiles.

Missile Industrial Facilities

($ in thousands)

FY 1985 Estimate	- $16,700
FY 1984 Eatimate	- $ 3,500
FY 1983 Estimate	- $ 2,600
FY 1982 Actuals	- $ 2,076

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 1984 and FY 1985 include: Non-severable civil works additiona and modifications to Navy and Air Force owned buildings; improvements to building equipments that are generated aa a result of safety and security requirements; replacement and rehabilitation of aging plant equipment itema; rehabilitation and environmental equipment to control the discharge of pollutants into the atmosphere; and fire protection equipment to aupport more efficient production and test operations.

The funds requested here are considered the minimum necessary to implement energy savings and environmental protection measures at the NIROP, Sunnyvale which are dictated by increasingly more stringent state and local regulations. This funding is alao required for capital rehabilitation and civil works improvements at these facilitiea and the Santa Cruz Test Facility. Typical individual projects would include the rehabilitation of necessary production equipment and modifications to manufacturing and product assurance areas to support tooling and equipment.

Astronautics

	($ in thousands) FY 1984 Amount	FY 1985 Amount
Procurement Cost	$11,800	- $15,600

To maintain an adequate constellation of navigation satellites in orbit the Weapons Procurement, Navy (WPN) appropriation provides for the procurement of satellites, launch vehicles and sustaining support costs. The FY 1984 and FY 1985 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 delivery of the second NOVA Satellite in FY 1983 (the first was delivered and launched in FY 1981) 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 indefinitely.

Budget Activity 2: Other Missiles

($ in Thousands)
FY 1985 Estimate - $ 3,603,600
FY 1984 Estimate - $ 2,528,900
FY 1983 Estimate - $ 2,062,500
FY 1982 Actual - $ 1,576,211

Purpose and Scope of Work

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

Guided missiles are procured for operational inventory requirements to meet combat sustainability objectives, 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 comprise the end-items, such as guidance, control, motors, warheads, and fuzes, (2) effort and hardware associated with the production and assembly of these items, such as production engineering, production proofing, tools and test equipment and (3) special handling and test equipment, training materials and other specialized items required for operational Fleet support of the item.

Justification of Funds

The Chief of Naval Operations establishes operational and training objectives consistent with the Navy's assigned role in national defense. These objectives are translated into annual procurement programs in accordance with logistics guidance set forth by the Secretary of Defense, taking into account available fiscal resources. The resultant procurement plan is designed to maintain an effective mix of weapons in the combat inventory and to provide weapons and targets in support of training, evaluation and pipeline requirements. In developing the plan, the Navy considers production feasibility and assures that missile deliveries are compatible with aircraft and ship testing, production, development and deployment schedules.

The following paragraphs provide justification for the Other Missiles procurement programs. Initial spare parts amounts are included for information under each missile but are separately justified in the spares and repair parts category.

Strategic Missiles

($ in Thousands)

FY 1985 Estimate - $ 707,900
FY 1984 Estimate - $ 372,800
FY 1983 Estimate - $ 207,463
FY 1982 Actual - $ 222,700

BGM-109 TOMAHAWK Cruise Missile

($ in Thousands)

	FY 1984 Qty	FY 1984 Amt	FY 1985 Qty	FY 1985 Amt
Procurement	124	$350,100	353	$666,400
Advance Procurement		22,700		41,500
Initial Spares	-	19,615	-	20,355
Procurement Cost		$392,415		$728,255

The TOMAHAWK Cruise Missile provides an attack capability against targets at sea and on land. TOMAHAWK is capable of being launched from aircraft, ships, submarines and ground launchers. The basic missile can be configured with either a conventional high explosive or nuclear warhead. The TOMAHAWK is propelled in flight by a small turbofan engine. It is 20.5 feet in length with booster, 21 inches in diameter and weighs 4,200 pounds with its capsule. The FY 1984 request for $372.8 million, which includes $22.7 million of advance procurement for FY 1985, will procure 12 anti-ship and 112 land attack missiles.

Tactical Missiles

($ in Thousands)

FY 1985 Estimate - $2,598,300
FY 1984 Estimate - $1,856,600
FY 1983 Estimate - $1,447,700
FY 1982 Actual - $1,208,200

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

AIM/RIM-7F/M SPARROW III Missile

($ in Thousands)

	FY 1984 Qty	FY 1984 Amt	FY 1985 Qty	FY 1985 Amt
Procurement	695	$153,700	1085	$209,500
Initial Spares		4,391		4,174
Procurement Cost		$158,091		$213,674

SPARROW is both a supersonic, all-weather, all-aspect-capable, air-to-air missile employed by F-4, F-14, F-15, and F-18 aircraft against high performance aircraft and a surface-to-air missile employed with the NATO SEASPARROW system on various Naval vessels. The new monopulse seeker (AIM-7M), which has improved electronic countermeasures, fuzing and look down/clutter capability, was introduced into the FY 1980 procurement. The RIM-7M for surface launch will eventually replace both the RIM-7E and RIM-7H. Initial procurement of 80 RIM-7M's was in FY 1981. The $153.7 million requested in FY 1984 provides for the procurement of 695 AIM/RIM-7M missiles at a cost of $141.4 million and equipment to support SPARROW missiles already in the Fleet at a cost of $12.3 million. The 695 missiles are required for operational inventory requirements to meet combat sustainability objectives and to supplement the inventory as older models of SPARROW are expended. The FY 1984 AIM/RIM-7M missiles will be produced by Raytheon and General Dynamics. The AIM-7E/F support funds will finance training material, depot checkout equipment and publications required to maintain the operational readiness and to support the surface-to-air version of the AIM-7E (SEASPARROW).

AIM-9L/M SIDEWINDER Missile ($ in Thousands)

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	350	$29,600	1000	$64,700
Initial Spares		1,154		826
Procurement Cost		$30,754		$65,526

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 fighter and attack aircraft. The all-aspect launch capability is a significant improvement over previous SIDEWINDER versions 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 2050 guidance units (350 USN/1700 USAF) in FY 1984 will be competed between the two mobilization base sources, Ford Aerospace and Raytheon, with the winner being awarded a larger quantity. The $29.6 million requested in FY 1984 represents the Navy portion of funding in support of the FY 1984 procurement of 350 missiles.

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

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	290	$320,800	464	$438,300
Advance Procurement		77,600		38,900
Initial Spares		10,893		29,163
Procurement Cost		$409,293		$506,863

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 guidance. 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, will provide 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 $398.4 million requested in FY 1984, which includes $36.6 million of advance procurement for FY 1985 and $41.0M to provide surge capability, will finance the procurement of 290 PHOENIX missiles configured in the improved AIM-54C version.

AGM/RGM/UGM-84A HARPOON Missile

($ in Thousands)

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	330	$294,300	340	$322,300
Initial Spares		10,915		13,437
Procurement Cost		$305,215		$335,737

The HARPOON is an air, surface and sub-surface 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 1984 request of $294.3 million provides for procurement of 330 HARPOON missiles.

AGM-88A HARM Missile

($ in Thousands)

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	230	$192,900	539	$314,300
Initial Spares		1,662		11,500
Procurement Cost		$194,562		$325,800

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 current anti-radiation missiles (ARM) such as SHRIKE and STANDARD ARM and is planned to replace both 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 in defeating current and future enemy air defense systems. Initial procurement, for Navy only, commenced in FY 1981 as planned. The FY 1984 request of $192.9 million will procure 230 HARM missiles for the Navy.

STANDARD MISSILES

($ in Thousands)

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	1,190	$595,700	1,800	$942,000
Initial Spares		28,291		35,631
Procurement Cost		$623,991		$977,631

STANDARD is a family of supersonic tactical missiles which provides the fleet with anti-air warfare capability against aircraft and missiles and a surface-to-surface capabilty against ships. There are four variants for use on the various surface ship configurations (cruisers, destroyers and frigates). There are three primary missile types being produced currently and are consolidated within this line: STANDARD Medium Range (MR)(SM-1), STANDARD Medium Range (MR)(SM-2) and STANDARD Extended Range (ER)(SM-2). STANDARD ER (SM-1) missile ended production in FY 1974.

The STANDARD MR (SM-1) missile has been in production since 1967. It is operational on guided missile cruisers destroyers and frigates. The SM-1 missile is a supersonic, medium range, tactical missile utilizing semi-active homing guidance. It provides the fleet with medium range, anti-air-warfare capability. The present production version utilizes a monopulse receiver in common with the SM-2 missile and a common SM-1 and SM-2 missile fuze. This version increases commonality with the SM-2 missile and improves performance in the area of electronic counter countermeasures (ECCM), maneuvering targets and low altitude fuzing.

The SM-2 MR missile versions are the AEGIS Block I (RIM-66C), Block II (RIM-66H) and TARTAR Block I (RIM-66D), and Block II (RIM-66J-1). The Block I production was initiated in 1980 and incorporates command guidance, inertial reference system and monopulse receiver to improve range, accuracy and electronic countermeasure (ECM) resistance. The SM-2 Block II MR missile begins pilot production in FY 1983 and incorporates all digital guidance, new ordnance and a new dual thrust rocket motor to further improve range, speed and system firepower to meet the advanced Anti-Ship Missile (ASM) threats in the mid 1980's.

The Extended Range missile group includes the SM-1 ER missile which ended production in FY 1974 and is operational on TERRIER guided missile destroyers and cruisers. The SM-2 ER missile (Block I and Block II variants) which are planned for deployment on all 31 TERRIER Guided Missiles destroyers and cruisers. The SM-2 ER missile is presently deployed on the USS MAHAN, USS BELKNAP, USS JOUETT and the USS HORNE. The SM-2 Block I missile design uses the same propulsion, fuze and warhead as the SM-1 ER missile. In FY 1982, pilot production of the Block II was introduced which improved propulsion, warhead and guidance designs to cope with the more stringent anti-ship missile (ASM) threats of the mid 1980's. The FY 1984 request of $595.7 million provides for the procurement of 1190 Standard missiles.

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

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	-	$13,400	30	$23,500
Initial Spares		-		-
Procurement Cost		$13,400		$23,500

The Rolling Airframe Missile (RAM) is a high power, low-cost, lightweight, complementary self-defense system to engage anti-ship capable missiles. It has dual 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 five (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. Prior to Approval for Service Use (ASU), the funding identified for FY 1984 is to procure tooling and test equipment for RAM missile pilot production which will provide for an orderly transition from Full Scale Engineering Development to production.

SIDEARM Missile ($ in Thousands)

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	-	-	-	$ 1,000
Initial Spares		-		-
Procurement Cost		$ -		$ 1,000

The SIDEARM is a rapid development program to provide an anti-radiation missile to counter point defenses. It is a short range weapon which can be carried by most attack aircraft without displacing other weapons from their normal stations. SIDEARM characteristics include: small size and low cost as a SIDEWINDER (AIM-9C) missile modified into an anti-radiation seeker. SIDEARM is 9-1/2 feet long, 5 inches in diameter and weighs about 200 pounds.

AGM-114A HELLFIRE Missile

($ in Thousands)

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	219	$17,100	314	$20,500
Initiel Spares		247		686
Procurement Cost		$17,347		$21,186

HELLFIRE, developed by the Army, will provide the US Marine Corps with an extremely effective anti-armor weapon for use on AH-1T/J helicopters. Procurement is requested to commence in FY 1984 with en initial production of 219 missiles et a cost of $17.1 million.

AGM-65E LASER MAVERICK Missile

($ in Thousands)

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	165	$45,200	185	$67,100
Initial Speres		1,617		4,217
Procurement Cost		$46,817		$71,317

The LASER MAVERICK, a forward fired leser guided missile, cen be employed from lend or cerrier besed aircreft, end will be delivered primarily for A-4M, AV-8B, F/A-18 and A-6E Marine Corps eircraft. It will be used for interdiction, close air support and strike requirements ageinst both lend and sea targets. $45.2 million is requested in FY 1984 for follow-on procurement of 165 LASER MAVERICK missiles.

AGM-65F IIR MAVERICK Missile

($ in Thousands)

	FY 1984		FY 1985	
	Qty	Amt	Qty	Amt
Procurement	-	-	100	$29,800
Initial Spares		-		970
Procurement Cost		$ -		$30,770

The 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 the imaging infrared (IIR) guidence unit optimized for ship tracking, an improved warhead and e reduced smoke rocket motor. The IIR MAVERICK missile will provide the Navy and Marine Corps with the capebility to ettack land end sea targets from a more survivable position below and outside of close-in air defense systems. Initial production is planned for FY 1985, with the Navy procu ing 100 IIR MAVERICK missiles.

MK-83 Boosted Low Level Laser Guided Bomb (LLLGB) Kits ($ in Thousands)

	FY 1984 Qty	FY 1984 Amt	FY 1985 Qty	FY 1985 Amt
Procurement	-	$ -	1,300	$35,000
Initial Spares		-		-
Procurement Cost		$ -		$35,000

The MK-83 Boosted LLLGB kit adds g-bias, improved capability, an improved airfoil group and a rocket motor to the basic MK-83 laser guided bomb. The weapon is in the 1,000 pound class. It represents a significant improvement over the PAVEWAY II laser guided bomb (LGB) family because it can be delivered from significantly greater standoff ranges with essentially no degradation in accuracy. The 1985 request of $35.0M will finance the initial production of 1,300 MK-83 Boosted LLLGBs kits.

Aerial Targets ($ in Thousands)

	FY 1984 QTY	FY 1984 AMT	FY 1984 INITIAL SPARES	FY 1984 TOTAL	FY 1985 QTY	FY 1985 AMT	FY 1985 INITIAL SPARES	FY 1985 TOTAL
BQM-34A/S	62	$21,125	$ 300	$21,425	-	$ -	$ -	$ -
AQM-37A	100	12,265	200	12,465	100	13,800	200	14,000
BQM-74C	210	39,015	215	39,230	276	47,500	641	48,141
All Other Targets		40,495	400	40,895		29,700	300	30,000
		$112,900	$1,115	$114,015		$91,000	$1,141	$92,141

Aerial targets provide realistic presentations of potential threats and are used for training programs and to permit evaluation of weapon systems. The BQM-34A/S and BQM-74C are recoverable, subsonic targets which are required for both surface-to-air and air-to-air missile and gunnery exercises. The AQM-37A is a non-recoverable, supersonic target which replicates high speed threats. In FY 1984, the procurements of the AQM-37A, BQM-34A/S, and BQM-74C targets account for $72.4 million of the total $112.9 million. The remaining $40.5 million finances the procurement of special purpose targets for Close-In Weapon System (CIWS) testing, a variety of low cost targets and target auxiliary equipments required for target control and augmentation.

Other Missile Support ($ in Thousands)

	FY 1984 Qty	FY 1984 Amt	FY 1985 Qty	FY 1985 Amt
Procurement		$3,400		$900
Initial Spares		-		-
Procurement Cost		$3,400		$900

The Other Missile Support program provides for Fleet support requirements for the UUM-44A SUBROC missiles now in the Fleet. Material procurement includes depot checkout equipment, special handling equipment for depot and squadron utilization, training materiel expendables (ultra high frequency exercise sections for non-combat firings), non-expendable training materiel and documentation.

Modification of Missiles

($ in Thousands)

FY 1985 Estimate - $47,100
FY 1984 Estimate - $59,300
FY 1983 Estimate - $71,690
FY 1982 Actual - $37,700

The FY 1984 budget request for missile modification is $59.3 million. This budget request includes funds for air-launched and surface-launched missile modifications. Funds requested provide for the procurement of modification kits only; all installation costs are budgeted in the Operations and Maintenance, Navy appropriation.

FY 1984 Modification Programs
($ in Thousands)

Air-Launched Missiles		Surface-Launched Missiles	
SPARROW*	$ 2,500	STANDARD Missiles	$5,100
SIDEWINDER	29,700		
PHOENIX	7,600		
HARPOON*	14,400		
TOTAL	$54,200		

* SPARROW and HARPOON can also be surface-launched.

Funds for FY 1984 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 $2.5 million, provides for various modifications, including the procurement of kits to continue the Product Optimization Program (POP), which is designed to correct deficiencies in mainbeam clutter, fuzing on jet engine modulation, narrow band jammer, mutual aircraft interference, and auto-pilot separation. The SIDEWINDER missile modification program, budgeted at $29.7 million, provides for a capability improvement of the AIM-9H version and for the procurement of missile components to convert existing AIM-9H and AIM-9L missiles in inventory to the AIM-9M configuration. The PHOENIX missile modification program, budgeted at $7.6 million, provides for the incorporation of changes to missile test sets to improve testing reliability. The HARPOON missile modification program, budgeted at $14.4 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 1984 STANDARD missile modification program is budgeted at $5.' million. The STANDARD Medium Range (MR) missila modification program will reduce rasonant burning by reloading of the MK-56 rocket motor. The STANDARD Extandad Ranga (ER) missila modification program includes reconfiguring the MK-7 sustainer sections to the MK-30 varsion and upgrading of MK-12 boosters to reduce resonant burning and rough separation.

FY 1985 Modification Program
($ in Thousands)

Air-Launched Missiles		Surface-Launched Missiles
SPARROW	$ 2,400	STANDARD Missiles $6,200
SIDEWINDER	32,200	
PHOENIX	4,700	
HARPOON	1,600	
TOTAL	$40,900	

The FY 1985 funds required for the air-launched missile modification programs are budgeted at $40.9 million and continue required modifications for SPARROW, SIDEWINDER, PHOENIX and HARPOON missiles. The FY 1985 request includes funding for the procurement of additional components to continue the upgrading of the SIDEWINDER inventory to the AIM-9M configuration.

The FY 1985 STANDARD missile modification program, budgated at $6.2 million, continues tha required modifications of STANDARD MR and ER rocket motors and sustainer sections.

Support Equipment and Facilities

($ in Thousands)

FY 1985 Estimata - $209,200
FY 1984 Estimate - $225,500
FY 1983 Estimata - $335,640
FY 1982 Actual - $107,691

Support Equipment and Facilitiau includa Initial Spares, Replenishment Spares, Weapons Industrial Facilities, Enargy Conservation, Defensa Meteorological Satallite and Fleet Satallita Communications programs.

Spares and Repair Parts

($ in Thousands)

FY 1984	FY 198[illegible]
$87,700	$'32,700

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 1984 and FY 1985 estimates

for initial spares are $80.1 million and $123.1 million, respectively, and the estimates for replenishment spare parts are $7.6 million and $9.6 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)

	FY 1984		FY 1985	
	Amount	Missile Qty	Amount	Missile Qty
Tactical Missiles				
TOMAHAWK	$19,815	124	$20,355	353
SPARROW	4,391	695	4,174	1,085
SIDEWINDER	1,154	350	826	1,000
PHOENIX	10,893	290	30,163	464
HARPOON	10,915	330	13,437	340
HARM	1,662	230	11,500	539
STANDARD MISSILES	28,291	1,190	35,631	1,800
LASER MAVERICK	1,617	165	4,217	185
IIR MAVERICK	-	-	970	100
HELLFIRE	247	219	686	314
Aerial Targets	1,115	-	1,141	-
TOTAL	$80,100		$123,100	

Requirements for initial spares support are determined by detailed provisioning procedures which consider a number of factors, such as the use of the end-item, usage rate trends, engineering judgment and surveillance program data.

For new and sophisticated missiles, the initial spares estimate includes an amount for "contractor support" of the system prior to operational service. Such contractor support takes the form of providing initial spares before Fleet usage data is available or missile design is frozen. Any assets remaining at the end of the contractor support phase are applied against future spares and repair parts requirements.

Requirements for replenishment spares and repair parts are derived utilizing a stratification technique. This technique considers the number of missiles in the Fleet, Fleet data of spare parts usage, Ready-For-Issue (RFI) spares returning from rework and repair programs, and equipment leadtimes to derive net fiscal year budget requirements. FY 1984 and FY 1985 replenishment spares and repair parts are required as follows:

($ in Thousands)

	FY 1984	FY 1985
Replenishment Spares	$7,600	$9,600
Air Launched Missile Support	(1,905)	(2,140)
Surface Launched Missile Support	(5,695)	(7,460)

Weapons Industrial Facilities

($ in Thousands)

FY 1984	FY 1985
$22,700	$26,800

The FY 1984 and 1985 estimates of $22.7 million and $26.8 million, respectively, for missile and other ordnance producing industrial facilities include funds for three categories of production support. The first of these categories, restoration and replacement of machine tools and related production equipment, accounts for $3.0 million in FY 1984 and $5.0 million in FY 1985. This program is designed to provide and maintain an economical production capability through the procurement of modern machine tools to replace obsolete equipment and the restoration or modification of tools which are worn or require updating. Inefficient government-owned equipment is replaced or rehabilitated only when: (1) the contractor is unwilling or unable to fund the project, or (2) the project will reduce the end-item costs to the government and improve the industrial readiness posture. All actions undertaken in this program are scrutinized to assure rapid amortization of procurement costs and maximum practicable usage of tools in inventory.

The second category, capital maintenance, emergency repairs and fire protection improvements, is budgeted at $8.1 million in FY 1984 and $7.8 million in FY 1985. These funds provide for nonrecurring capital maintenance at government-owned missile and weapon producing industrial plants as well as emergency repairs and improvements designed to reduce fire and other safety hazards. Also included in FY 1984 and FY 1985 are $3.2 million and $1.8 million, respectively, for a time-phased reroofing of several buildings at Navy Industrial Reserve Ordnance Plant (NIROP), Pomona.

The third category is the modernization of ordnance production facilities. The budgeted amount of $11.6 million in FY 1984 and $14.0 million in FY 1985 will provide for a time-phased plant modernization of the NIROP Pomona to meet needs forecast for the STANDARD missile family, the Close-In Weapons System and, beginning in FY 1984, the Rolling Airframe Missile (RAM) program.

Fleet Satellite Communications

($ in Thousands)

FY 1984	FY 1985
$ 115,100	$49,700

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 1984 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 material was budgated prior to FY 1984.

The funds requested for FY 1985 include NASA launch preparation and launch of FLTSATCOM F-6 from Atlas/Centaur launch facility at Kennedy Space Flight Center at Cape Canaveral, Florida, plus non-NASA support for launch, ranga and initial on-orbit checkout.

Ordnance Support Equipment

($ in Thousands)

FY 1984	FY 1985
$14,700	$41,100

No justification materials submitted due to security considerations.

Budget Activity 3: Torpedoes and Related Equipment

($ in Thousands)
FY 1985 Estimate - $960,600
FY 1984 Estimate - $703,300
FY 1983 Estimate - $514,800
FY 1982 Actual - $473,055

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 $703.3 million requested in FY 1984, $519.4 million is for procurement of torpedoes and related equipment, $111.8 million is for modification of torpedoes and related equipment, and $72.1 million is for procurement of support equipment including spares and repair parts.

Of the $960.6 million requested in FY 1985, $641.7 million is for procurement of torpedoes and related equipment, $229.3 million is for modification of torpedoes and related equipment, including acquisition of MK-48 ADCAP modification kits, and $89.6 million is for procurement of support equipment including spares and repair parts.

Torpedoes and Related Equipment

($ in Thousands)
FY 1985 Estimate - $641,700
FY 1984 Estimate - $519,400
FY 1983 Estimate - $370,100
FY 1982 Actual - $309,735

Of the $519.4 million requested in FY 1984, $124.6 million is for procurement of 144 MK-48 torpedoes, $248.0 million is for procurement of 1200 MK-46 NEARTIP torpedoes including $29.9 million for advance procurement of long lead material associated with the FY 1985 NEARTIP torpedo procurement, $105.4 million is for procurement of 300 CAPTOR mines, $24.1 million is for underwater target procurements including $7.4 million for advance procurement of long lead materia' associated with the MK-30 target multiyear procurement, and $17.3 million is for procurement of ASROC replacement components.

Of the $ 641.7 million requested in FY 1985, $135.3 million is for the procurement of 144 MK-48 torpedoes, $295.3 million is for the procurement of 1565 MK-46 NEARTIP torpedoes, $157.6 million is for procurement of 475 CAPTOR mines, $13.3 million is for underwater target procurements and $40.2 million is for procurement of ASROC replacement components.

The following paragraphs provide justification for the FY 1984 and FY 1985 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 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	144	124,600	144	135,300
Initial Spares		2,500		2,000
Procurement Cost		127,100		137,300

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 1984 and FY 1985 funds provide for the procurement of 144 MK-48 Mod 4 Torpedoes in each year and associated production and proofing support.

Torpedo MK-46 (MYP)

	($ in Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	1200	218,100	1565	295,300
Initial Spares		-		-
Procurement Cost		218,100		295,300

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 1984 and FY 1985 resources provide for continued 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. Long lead materials are being procured under the Torpedo MK-46 Advance Procurement line item.

Torpedo MK-46 (MYP) Advance Procurement

	($ in Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	-	29,900	-	-
Initial Spares		-		-
Procurement Cost		29,900		-

FY 1984 funding provides for procurement of long lead material required to continue a FY 1983 through FY 1985 three-year multiyear procurement program for the Torpedo MK-46 (NEARTIP).

MK-60 CAPTOR

	($ in Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	300	105,400	475	157,600
Initial Spares		10,000		17,100
Procurement Cost		115,400		174,700

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 1984 and FY 1985 requests are for the continued procurement of CAPTOR weapons, fleet support items, production support, and Navy support and proofing efforts for CAPTOR units procured in prior years.

Mobile Target MK-30 (MYP)

	($ in Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	7	14,700	6	11,200
Initial Spares		2,940		2,898
Procurement Cost		17,640		14,098

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 1984 and FY 1985 continues the build up of assets to support achievement of 2,400 MK-30 in water runs per year at four underwater sites. FY 1984 represents the first year of a planned three-year multiyear contract. Long lead materials are being procured under the Mobile Target MK-30 Advance procurement line item.

Mobile Target MK-30 (MYP) Advance Procurement

	($ in Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	-	7,400	-	-
Initial Spares		-		-
Procurement Cost		7,400		-

FY 1984 funding provides for procurement of long lead material required to implement a FY 1984 through FY 1985 three-year multiyear procurement program for the Mobile Target MK-30.

MK-38 Mini Mobile Target

	($ in Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	1200	2,000	1200	2,100
Initial Spares		-		-
Procurement Cost		2,000		2,100

This 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 1984 and FY 1985 requests provide for continued MK-38 Mini-Mobile Target production to support projected fleet usage, and associated production support and proofing efforts. The FY 1984 request also represents the last year of a three-year multiyear contract, covering FY 1981, FY 1983 and FY 1984. The FY 1985 request represents the first year of a new three-year multiyear procurement.

ASROC Component Replacement

	($ in Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	-	17,300	-	40,200
Initial Spares		800		-
Procurement Cost		18,100		40,200

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 1984 and FY 1985 requests provide for procurement of ASROC components to replace those that were expended during fleet training exercises. The principal element of cost in FY 1984 and FY 1985 is the continued procurement of rocket motor and Ignition Separation Assemblies (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.

Modification of Torpedoes and Related Equipment

($ in Thousands)
FY 1985 Estimate - $229,300
FY 1984 Estimate - $111,800
FY 1983 Estimate - $ 75,000
FY 1982 Actual - $126,377

The $111.8 million in FY 1984 and the $229.3 million in FY 1985 are requested to fund the following modification programs:

	($ in Thousands) FY 1984	FY 1985
MK-46 Torpedo Mods	2,300	3,400
MK-48 Torpedo Mods (ADCAP)	78,500	196,200
MK-48 Mods Initial Spares (ADCAP)	(5,889)	(12,121)
Mobile Mine MK-67	21,300	22,800
Mobile Mine MK-67 Initial Spares	(1,172)	(1,088)
CAPTOR Mods	7,200	5,300
Swimmer Weapon System	2,500	1,600

Torpedo MK-46 Mods

$2.3 million is requested in FY 1984 and $3.4 million is requested in FY 1985 in order to continue procurement of 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.

Torpedo MK-48 Mods

The FY 1984 request of $78.5 million supports the initial procurement of tooling, test equipment, workshop and handling equipment, and those materials required to check-out the production process prior to commencement of the MK-48 Advanced Capability (ADCAP) limited production in FY 1985. The FY 1985 request of $196.2 million provides for the initial production of ADCAP kits, procurement of additional tooling and test equipment, and associated production support and acceptance testing services.

Mobile Mine MK-67

$21.3 million is requested in FY 1984 and $22.8 million is requested in FY 1985 in order to procure the material for and support the modification of MK-37 Torpedoes to a SLMM configuration. Included within the funding requests are resources to support procurement of training mines, production support and proofing servi s.

CAPTOR Moda

$7.2 million is requested in FY 1984 and $5.3 million is requested in FY 1985 in order to support procurement of modifications for MK-60 CAPTOR mines currently in the fleet. These modifications will update the mines to the latest approved production baseline configuration.

Swimmer Weapon System

$2.5 million is requeated in FY 1984 and $1.6 million is requested in FY 1985 in order to provide for continued procurement of unique weapons and equipment required by the Navy Special Warfare Groups One and Two (UDT and SEAL teams) to carry out beach clearance, underwater and direct action missions. There are four UDT and three SEAL teams deployed with the Fleet. The major special warfare aystem 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 1985 Estimate - $89,600
FY 1984 Estimate - $72,100
FY 1983 Estimate - $69,700
FY 1982 Actual - $36,943

Of the $72.1 million requested in FY 1984, $24.4 million is for Torpedo Support Equipment, $23.5 million is for ASW Range Support, and $24.2 million is for initial spares and repair parts.

Of the $89.6 million requested in FY 1985, $31.7 million is for Torpedo Support Equipment, $22.2 million is for ASW Range Support, and $35.7 million is for initial spares and repair parts.

Torpedo Support Equipment

	($ in Thousands) FY 1984	FY 1985
Procurement	$24,400	$31,700
Initial Spares	69	73
Procurement Cost	$24,469	$31,773

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 1984 and FY 1985 resources procure the material required to support fleet training exercises and operational inventories for the MK-46, MK-37 and MK-48 torpedoes.

ASW Range Support

	($ in Thousands) FY 1984	FY 1985
Procurement	$23,500	$22,200
Initial Spares	830	420
Procurement Cost	$24,330	$22,620

The ASW Range Support Program provides for the procurement of range proofing and fleet support equipments required for use or 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.

Spare Parts and Repair Parts

Funding provides for initial outfitting of spares and repair parts to support the ASW weapons and support equipment procured in this budget acivity. 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 1984	FY 1985
MK-48 Torpedo	2,500	2,000
CAPTOR	10,000	17,100
MK-30 Mobile Target	2,940	2,898
ASROC	800	-
MK-48 Mods (ADCAP)	5,889	12,121
SLMM	1,172	1,088
Torpedo Supt Eqpt	69	73
ASW Range Support	830	420
TOTAL INITIAL	24,200	35,700

Budget Activity 4: Other Weapons

($ In Thousands)
FY 1985 Estimate - $261,500
FY 1984 Estimate - $181,400
FY 1983 Estimate - $161,300
FY 1982 Actual - $190,634

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 $181.4 million requested in FY 1984, $158.5 million is for 42 Close-In Weapon Systems, 3 MK-75/76MM Gun Mounts, 2 5"/54 MK-45 Gun Mounts, 25 MK-19 Mod 3 40MM Machine Guns, 7 25MM Gun Mounts, Small Arms and Weapons and 9MM Handguns. $13.6 million is for Gun and Gun Mount modification and $9.3 million is for spares and repair parts and support equipment.

Of the $261.5 million requested in FY 1985, $201.4 million is for 50 Close-In Weapon Systems, 3 MK-75/76MM Gun Mounts, 2 5"/54 MK-45 Gun Mounts, 25 MK-19 Mod 3 40MM Machine Guns, 17 25MM Gun Mounts, Small Arms and Weapons and 9MM Handguns. $49.3 million is for Gun and Gun Mount modification and $10.8 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 1985 Estimate - $201,400
FY 1984 Estimate - $158,500
FY 1983 Estimate - $123,100
FY 1982 Actual - $133,694

Of the $158.5 million requested for Guns and Gun Mounts in FY 1984, $126.7 million is for 42 MK-15 Close-In Weapon Systems, $11.1 million is for 3 MK-75/76MM Gun Mounts, $16.1 million for 2 5"/54 MK-45 Gun Mounts, $.9 million is for 25 MK-19 Mod 3 40MM Machine Guns, $.7 million is for 7 25MM Gun Mounts, $2.5 million is for Small Arms and Weapons, and $.5 million is for 9MM Handguns.

Of the $201.4 million requested for Guns and Gun Mounts in FY 1985, $163.4 million is for 50 Close-In Weapon Systems, $11.9 million is for 3 MK-75/76MM Gun Mounts, $18.9 million is for 2 5"/54 MK-45 Gun Mounts, $1.0 million is for 25 MK-19 Mod 3 40MM Machine Guns, $3.1 million is for 17 25MM Gun Mounts, $2.6 million is for Small Arms and Weapons, and $.5 million is for 9MM Handguns.

MK-15 Close-In Weapon System (PHALANX)

	($ In Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	42	$126,700	50	$163,400
Initial Spares	-	3,525	-	5,700
Procurement Cost	42	$130,225	50	$169,100

The PHALANX is designed as a fast reaction, last ditch defense against low flying aircraft and anti-ship missiles penetrating other Fleet defensive weapons envelopes. The system is an automatic self-contained unit consisting of a search and track rader, digital fire control system and a 20MM M61A1 gun all mounted in a single above deck structure requiring a minimum of interface with other ship systems. It automatically detects, evaluates, tracks, engages, assesses kill and returns to search mode. The system will be installed in over 300 ships, both new construction and retrofit. Commencing in FY 1982, improvements will be incorporated and will result in increased magazine capacity, increased search elevation and adaptive firing rate. The request represents funds for 42 systems in FY 1984 and 50 system in FY 1985 for backfit onto active Fleet ships.

5"/54 MK-45 Gun Mount

	($ In Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	2	$16,100	2	$18,900
Initial Spares	-	1,456	-	2,682
Procurement Cost	2	$17,556	2	$21,582

The 5"/54 Lightweight Gun Mount is a modern, dual-purpose, automatic weapon system which was designed and selected as the successor to the 5"/38 Single Dual-Purpose Gun Mount.

This request provides for the procurement of two (2) rotatable pool gun mounts in FY 1984 and two (2) in FY 1985. These mounts are required to meet ship overhaul schedules.

MK-75/76MM Gun Mount

	($ In Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	3	$11,100	3	$11,900
Initial Spares	-	640	-	500
Procurement Cost	3	$11,740	3	$12,400

This gun is an OTO MELARA designed, intermediate caliber, dual purpose, high rate of fire gun which is also scheduled for installation in new construction hulls (Coast Guard cutters; Navy Patrol boats and frigates).

This request provides for the procurement of three (3) gun mounts in FY 1984 and three (3) in FY 1985 to replace existing mounts as part of the Mid-Life Conversion of twelve (12) Hamilton Class Coast Guard cutters.

MK-19 40MM Machine Gun

	($ In Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	25	$900	25	$1,000

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 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	7	$700	17	$3,100

This line provides for the procurement of 25MM Gun Mounts to replace MK-16 Mods 4/5 20MM Gun Mounts. It 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 1984		FY 1985	
	QTY	AMT	QTY	AMT
Procurement	-	$2,500	-	$2,600

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 and associated support components. This line also provides for procurement of sufficient types and quantities of weapons to support trsining, security, afloat and ashore missions of approximately 2400 ships and ashore activities Navy-wide.

9MM Handgun

	($ In Thousands)			
	FY 1984		FY 1985	
	QTY	AMT	QTY	AMT
Procurement	-	$500	-	$500

This personal defense weapon is a lightweight 9MM Automatic Pistol. This automatic pistol is clip fed with a minimum clip capacity of 13 rounds. The personal defense weapon's operating charsteristics will include double action, position safeties and rugged design.

Modification of Guns and Gun Mounts

($ in Thousands)		
FY 1985	Estimate	- $49,300
FY 1984	Estimate	- $13,600
FY 1983	Estimate	- $17,800
FY 1982	Actual	- $21,600

Of the $13.6 million requested for modification of guns and gun mounts in FY 1984, $4.5 million is for MK-15 Close-In Weapon System modification, $4.9 million is for 5"/54 Gun Mount modification, $3.7 million is for MK-75/76MM Gun Mount modification, and $.5 million is for modifications under $900,000.

Of the $49.3 million requested for modification of guns and gun mounts in FY 1985, $39.7 million is for MK-15 Close-In Weapon System modification, $6.3 million is for 5"/54 Gun Mount modification, $2.7 million is for MK-75/76MM Gun Mount modification, and $.6 million is for modifications under $900,000.

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

	($ In Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	-	$4,500	-	$39,700

The $4.5 million in FY 1984 and $39.7 million in FY 1985 are requested for improvements to the Close-In Weapon System which will reault in increaaed magazine capacity, increaaed search elevation angle and adaptive firing rate. Funds requested are to adapt previously procured units to incorporate these improvements. Systems being procured in FY 1983 and subsequent years will incorporate these improvements.

5"/54 Gun Mount Modifications

	($ In Thousands) FY 1984 QTY	FY 1984 AMT	FY 1985 QTY	FY 1985 AMT
Procurement	-	$4,900	-	$6,300

Of the funds requested, $4.9 million in FY 1984 and $6.3 million in FY 1985 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.

MK-75/76MM Gun Mount Modifications

($ In Thousands) FY 1984	FY 1985
$ 3,700	$ 2,700

The $3.7 million in FY 1984 and $2.7 million in FY 1985 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.

Modifications Under $900,000

($ In Thousands) FY 1984	FY 1985
$ 500	$ 600

The $.5 million in FY 1984 and $.6 million in FY 1985 are requested to procure a variety of ordnance alteration materials for in-service 5"/38 Gun Mounts and minor calibration ordnance.

Support Equipment

($ In Thousands)
FY 1985 Estimate - $10,800
FY 1984 Estimate - $ 9,300
FY 1983 Estimate - $20,400
FY 1982 Actual - $35,340

Of the $9.3 million requested for support equipment in FY 1984, $.6 million is for Gun Support Equipment and $8.7 million is for spares and repair parts.

Of the $10.8 million requested for support equipment in FY 1985, $.6 million is for Gun Support Equipment and $10.2 million is for spares and repair parts.

Gun Support Equipment

($ In Thousands)

FY 1984	FY 1985
$ 600	$ 600

The $.6 million in FY 1984 and $.6 million in FY 1985 are requested to procure a variety of ordnance in support of Surface Gun Systems. This includes training aids, small arms and minor caliber ordnance.

Spares and Repair Parts

($ in Thousands)

FY 1984	FY 1985
$ 8,700	$ 10,200

The $8.7 million in FY 1984 and $10.2 million in FY 1985 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 Thouaands) FY 1984	FY 1965
Initial	$ 8,700	$ 10,200

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

	($ In Thousands) FY 1984	FY 1985
Initial Spares		
Close-In-Weapon System	$ 3,525	$ 5,700
MK-75/76MM 62 Gun Mount	640	500
2J Cog Spares	4,535	4,000
TOTAL	$ 8,700	$ 10,200

FY 1984 Budget
Special Analysis
Consultants, Studies and Analyses
and Management Support Contracts
(Dollars in Thousands)

Appropriation: Weapons Procurement, Navy

	FY 1982	FY 1983	FY 1984
A. Experts and Consultants	0	0	0
1. Personnel Appointments			
a. Experts			
b. Consultants			
(1) Federal Advisory Committee Members			
(2) All Other Appointed Consultants			
2. Contract Consultants			
B. Contract Studies & Analysis	0	0	0
1. Consulting Services			
2. Other			
C. Professional and Management Services by Contract	14,368	18,375	19,640
1. Program Management Support	1,889	2,114	2,199
a. Consulting Services	(-)	(-)	(-)
b. Other	(1,889)	(2,114)	(2,199)
2. Policy Review and Development	340	736	733
a. Consulting Services	(-)	(-)	(-)
b. Other	(340)	(736)	(733)

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	FY 1982	FY 1983	FY 1984
3. Specification Development	230	364	593
a. Consulting Services	(-)	(-)	(-)
b. Other	(230)	(364)	(593)
4. System Engineering	5,761	8,209	8,598
a. Consulting Services	(-)	(-)	(-)
b. Other	(5,761)	(8,209)	(8,598)
5. Technology Sharing/Utilization			
a. Consulting Services			
b. Other			
6. Logistic Support Services	6,138	6,817	7,262
a. Consulting Services	(-)	(-)	(-)
b. Other	(6,138)	(6,817)	(7,262)
7. Technical Data Collection			
a. Consulting Services			
b. Other			
8. Public Affairs and Advertising			
a. Consulting Services			
b. Recruit Advertising			
c. Other			
9. Other Professional, and Management Services by Contract	10	135	255
a. Consulting Services	(-)	(-)	(-)
b. Other	(10)	(135)	(255)

	FY 1982	FY 1983	FY 1984
D. Contract Engineering Technical Services (CETS)	0	600	0
1. Contract Plant Services			
2. Contract Field Services	0	600	0
3. Field Service Representatives			
TOTAL	14,368	18,975	19,640
E. Summary			
1. Personnal Appointments	0	0	0
2. Contract Consulting Services	0	0	0
3. Other Contract Services	14,368	18,975	19,640
TOTAL	14,368	18,975	19,640

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FY 1984 Budget Special Analyses
Consultants, Studies and Analysis, and Management Support
Contracts for the WPN Appropriation

NARRATIVE JUSTIFICATION

A. Experts and Consultants - No requirements

B. Contract Studies and Analysis - No requirements

C. Professional and Management Services by Contract

1. Program Management Support

a. Consulting Services - No requirements

b. Other - The resources identified support contractual effort in the TOMAHAWK and the MK-48 and MK-46 torpedo programs incident to monitoring schedule and costs associated with the prime production contracts. The effort is required to aid the Project Manager in independent analysis and verification of field activity and contractor Production Progress reports concerning production planning and execution, cost estimating, and engineering investigations.

2. Policy Review and Development

a. Consulting Services - No requirements

b. Other - Requirements for the TOMAHAWK program are a result of the breakout of sub-contracted components from prime contractors which have resulted in additional government furnished equipment. The increased workload due to the additional acquisition production scheduling cannot be accomplished within existing in-house resources.

3. Specification Developments

a. Consulting Services - No requirements

b. Other - The majority of the resources identified under this category also support the TOMAHAWK program: $205K in FY 82, $284K in FY 83; and $503K in FY 84. Justification for this request is the same as stated in paragraph C.2.b. The remaining resources provide support for the ASROC, MK-46 Torpedo Mods, the SWIMMER Weapons Systems and the ASW Range Support project.

4. System Engineering

a. Consulting Services - No requirements

b. Other - Production engineering efforts for the Anti-Submarine Warfare (ASW) Range Support, Anti-Submarine Rocket (ASROC), Standard Missiles, Close-In Weapons System, MK-75 Gun Mount, SPARROW, SIDEWINDER, Aerial Targets, HARM, PHOENIX, and HARPOON programs account for $5,761K in FY 1982, $8,209K in FY 1983 and $8,598K in FY 1984. These production support efforts include technical engineering analysis, production design verification, engineering change feasibility and impact analysis, product improvement effort, and other services which are directly related to the acquisition of hardware. Establishing an in-house capability would be prohibitive in both cost and manpower resources. Failure to provide these services will seriously impact the production of missile/target hardware and the Navy's capability to deploy and maintain the hardware at an acceptable rate of operational readiness. Changes in amount between fiscal years correspond to changes in hardware requirements. They are not recurring efforts subject to level of effort explanations. A breakout of specific program estimates by fiscal year follows:

System Engineering (Other)	($ in Thousands) FY 1982	FY 1983	FY 1984
ASW Range Support	25	55	55
ASROC	0	60	75
Standard Missiles	315	430	462
Close-In Weapons System	100	250	250
MK-75 Gun Mount	0	380	420
SPARROW Missile	89	524	524
SIDEWINDER Missile	582	723	768
Aerial Targets	0	351	361
HARM Missile	625	1,013	1,033
PHOENIX Missile	500	530	565
HARPOON Missile	3,525	3,883	4,085
TOTAL	$5,761	$8,209	$8,598

5. Technology Sharing/Utilization - No requirements

6. Logistic Support Services

a. Consulting Services - No requirements

b. Other: Logistic support services are required to support various missile and other weapon programs: $6,138K in FY 1982, $6,817K in FY 1983, and $7,262K in FY 1984. Specific efforts include the creation and updating of maintenance plans, evaluation of provisioning requirements, analyzing the impact on logistics should proposed hardware engineering changes be implemented, determination of field support requirements, support of reliability and maintainability programs, and other efforts relating to integrated Logistics Support. Changes between fiscal years correspond to changes in hardware requirements. They are not recurring effort subject to level of effort explanations. A breakout of program funding by fiscal year follows:

Logistic Support (Other)	($ in Thousands) FY 1982	FY 1983	FY 1984
ASW Range Support	10	15	15
ASROC	35	50	54
MK-75 Gun Mount	0	273	328
5"/54 Gun Mount Mods	11	12	12
TOMAHAWK	810	598	682
SPARROW Missile	2,500	2,900	3,900
SIDEWINDER Missile	166	175	197
HARM Missile	126	159	159
PHOENIX Missile	825	860	915
HARPOON Missile	1,600	1,775	1,000
STANDARD Missile MR SM-1	55	0	0
TOTAL	$6,138	$6,817	$7,262

7. Technical Data Collection - No requirements

8. Public Affairs and Advertising - No requirements

9. Other Professional and Management Services by Contract

a. Consulting Services - No requirements

b. Other - Resources identified under this category are to provide services in support of the Small Arms and Weapons, the MK-19/40MM Machine Gun and the ASW Range Support projects.

D. Contract Engineering Technical Services (CETS)

1. Contract Plant Services - No requirements

2. Contract field Services - Resources of $600K in FY 1983 are required in support of the SPARROW program.

3. Field Service Representatives - No requirements