

DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2001
BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES
FEBRUARY 2000

WEAPONS PROCUREMENT, NAVY
BUDGET ACTIVITIES 1-4

UNCLASSIFIED

DEPARTMENT OF THE NAVY

FY 2001 PROCUREMENT PROGRAM

SUMMARY
(\$ IN MILLIONS)

February 2000

APPROPRIATION: WEAPONS PROCUREMENT, NAVY

ACTIVITY -----	FY 1999 -----	FY 2000 -----	FY 2001 -----
01. BALLISTIC MISSILES	310.5	489.2	464.0
02. OTHER MISSILES	1,110.1	712.3	818.4
03. TORPEDOES AND RELATED EQUIPMENT	93.3	115.7	91.7
04. OTHER WEAPONS	49.2	37.9	6.7
06. SPARES AND REPAIR PARTS	44.8	46.6	53.5
TOTAL WEAPONS PROCUREMENT, NAVY	1,607.8	1,401.8	1,434.3

DEPARTMENT OF THE NAVY
FY 2001 PROCUREMENT PROGRAM

EXHIBIT P-1

APPROPRIATION: 1507N WEAPONS PROCUREMENT, NAVY

DATE: February 2000

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 1999		FY 2000		FY 2001		S E C
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
BUDGET ACTIVITY 01: BALLISTIC MISSILES									

BALLISTIC MISSILES									
1	TRIDENT II	A	5	(286.7)	12	(473.0)	12	(472.9)	U
	LESS: ADVANCE PROCUREMENT (PY)			(-29.1)		(-37.4)		(-38.9)	U
				-----		-----		-----	
				257.7		435.7		433.9	
2	TRIDENT II								
	ADVANCE PROCUREMENT (CY)			52.6		51.4		28.8	U
	(FY 1999 FOR FY 2000) (MEMO)			(16.0)					
	(FY 1999 FOR FY 2001) (MEMO)			(1.6)					
	(FY 1999 FOR FY 2002) (MEMO)			(2.2)					
	(FY 1999 FOR FY 2003) (MEMO)			(4.2)					
	(FY 1999 FOR FY 2004) (MEMO)			(28.8)					
	(FY 2000 FOR FY 2001) (MEMO)					(19.2)			
	(FY 2000 FOR FY 2004) (MEMO)					(12.8)			
	(FY 2000 FOR FY 2005) (MEMO)					(19.4)			
	(FY 2001 FOR FY 2002) (MEMO)							(9.5)	
	(FY 2001 FOR FY 2005) (MEMO)							(19.3)	
SUPPORT EQUIPMENT AND FACILITIES									
3	MISSILE INDUSTRIAL FACILITIES	A		.2		2.2		1.2	U
				-----		-----		-----	
TOTAL BALLISTIC MISSILES				310.5		489.2		464.0	
BUDGET ACTIVITY 02: OTHER MISSILES									

STRATEGIC MISSILES									
4	TOMAHAWK	A	624	439.2					U
5	ESSM	B		12.6		11.6	36	40.0	U
TACTICAL MISSILES									
6	AMRAAM	A	100	50.5	100	46.1	75	38.9	U
7	JSOW	B	328	118.1	454	115.1	636	171.6	U
8	SLAM-ER	A	102	61.6	20	24.7	30	27.9	U

UNCLASSIFIED

DEPARTMENT OF THE NAVY
FY 2001 PROCUREMENT PROGRAM

EXHIBIT P-1

APPROPRIATION: 1507N WEAPONS PROCUREMENT, NAVY

DATE: February 2000

LINE NO	ITEM NOMENCLATURE	IDENT CODE	MILLIONS OF DOLLARS						S E C	
			FY 1999 QUANTITY	FY 1999 COST	FY 2000 QUANTITY	FY 2000 COST	FY 2001 QUANTITY	FY 2001 COST		
9	STANDARD MISSILE	A	114	212.7	86	198.1	86	170.4	U	
10	RAM	A	95	44.3	90	45.3		23.1	U	
11	HELLFIRE	A			220	19.9			U	
12	PENGUIN	A				10.0			U	
13	AERIAL TARGETS	A		68.9		46.0		58.9	U	
14	DRONES AND DECOYS	A		8.3		10.0			U	
15	OTHER MISSILE SUPPORT	A		15.1		12.7		14.9	U	
MODIFICATION OF MISSILES										
16	SIDEWINDER MODS	A					63	27.5	U	
17	HARM MODS	A			292	89.3			U	
18	STANDARD MISSILES MODS	A		44.8		41.8		50.7	U	
SUPPORT EQUIPMENT AND FACILITIES										
19	WEAPONS INDUSTRIAL FACILITIES	A		27.8		27.8		21.3	U	
20	FLEET SATELLITE COMM FOLLOW-ON LESS: ADVANCE PROCUREMENT (PY)	A						(180.3) (-9.8)	U U	
								170.5		
21	FLEET SATELLITE COMM FOLLOW-ON ADVANCE PROCUREMENT (CY) (FY 2000 FOR FY 2001) (MEMO)					9.8 (9.8)			U	
ORDNANCE SUPPORT EQUIPMENT										
22	ORDNANCE SUPPORT EQUIPMENT	A		6.2		4.1		2.7	U	
TOTAL OTHER MISSILES				1,110.1		712.3		818.4		

DEPARTMENT OF THE NAVY
FY 2001 PROCUREMENT PROGRAM

EXHIBIT P-1

APPROPRIATION: 1507N WEAPONS PROCUREMENT, NAVY

DATE: February 2000

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 1999		FY 2000		FY 2001		S E C
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
BUDGET ACTIVITY 03: TORPEDOES AND RELATED EQUIPMENT									

TORPEDOES AND RELATED EQUIP.									
23	ASW TARGETS	A		4.1		2.0		3.2	U
MOD OF TORPEDOES AND RELATED EQUIP									
24	MK-46 TORPEDO MODS	A		*		28.6		7.1	U
25	MK-48 TORPEDO ADCAP MODS	A		48.9		45.1		38.9	U
26	QUICKSTRIKE MINE	B						2.0	U
SUPPORT EQUIPMENT									
27	TORPEDO SUPPORT EQUIPMENT	A		23.9		23.3		23.7	U
28	ASW RANGE SUPPORT	A		14.4		15.1		15.0	U
DESTINATION TRANSPORTATION									
29	FIRST DESTINATION TRANSPORTATION	A		2.0		1.7		1.8	U
				-----		-----		-----	
TOTAL TORPEDOES AND RELATED EQUIPMENT				93.3		115.7		91.7	
BUDGET ACTIVITY 04: OTHER WEAPONS									

GUNS AND GUN MOUNTS									
30	SMALL ARMS AND WEAPONS	A		.9		2.4		.9	U
MODIFICATION OF GUNS AND GUN MOUNTS									
31	CIWS MODS	A		10.7		3.0		1.0	U
32	5/54 GUN MOUNT MODS	A		13.9		29.3			U
33	MK-75 76MM GUN MOUNT MODS	A		1.9		2.0			U
34	GUN MOUNT MODS	A						4.8	U
35	MODS UNDER \$2 MILLION	A		1.3		1.3			U

UNCLASSIFIED

DEPARTMENT OF THE NAVY
 FY 2001 PROCUREMENT PROGRAM

EXHIBIT P-1

APPROPRIATION: 1507N WEAPONS PROCUREMENT, NAVY

DATE: February 2000

MILLIONS OF DOLLARS

LINE NO	ITEM NOMENCLATURE	IDENT CODE	FY 1999		FY 2000		FY 2001		S E C
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
OTHER									
36	PIONEER	A		19.0					U
37	CANCELLED ACCOUNT ADJUSTMENTS	A		1.5					U
TOTAL OTHER WEAPONS				49.2		37.9		6.7	
BUDGET ACTIVITY 06: SPARES AND REPAIR PARTS									
SPARES AND REPAIR PARTS									
38	SPARES AND REPAIR PARTS	A		44.8		46.6		53.5	U
TOTAL SPARES AND REPAIR PARTS				44.8		46.6		53.5	
TOTAL WEAPONS PROCUREMENT, NAVY				1,607.8		1,401.8		1,434.3	

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

Identification code	17-1507-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
		1999 actual	2000 est.	2001 est.	1999 actual	2000 est.	2001 est.
Program by activities:							
Direct program:							
00.0101	Ballistic missiles	310,459	489,246	463,965	299,418	458,504	389,451
00.0201	Other missiles	1,106,902	712,261	818,403	1,032,513	718,229	890,712
00.0301	Torpedoes and related equipment	92,356	115,701	91,744	96,122	104,335	96,878
00.0401	Other weapons	53,596	37,940	6,652	46,648	46,995	15,443
00.0601	Spares and repair parts	44,534	46,616	53,486	43,302	43,123	50,417
00.9101	Total direct program	1,607,847	1,401,764	1,434,250	1,518,003	1,371,186	1,442,901
01.0101	Reimbursable program	980	10,000	10,000	2,515	10,000	10,980
10.0001	Total	1,608,827	1,411,764	1,444,250	1,520,518	1,381,186	1,453,881
Financing:							
Offsetting collections from:							
11.0001	Federal funds(-)	-980	-10,000	-10,000	17,472	-10,000	-10,000
17.0001	Recovery of prior year obligations				-4,417		
Unobligated balance available, start of year:							
21.4002	For completion of prior year budget plans				-202,991	-265,629	-296,207
21.4003	Available to finance new budget plans		-8,000			-8,000	
21.4009	Reprogramming from/to prior year budget plan	-11,636					
Unobligated balance available, end of year:							
24.4002	For completion of prior year budget plans				265,629	296,207	286,576
24.4003	Available to finance subsequent year budget	8,000			8,000		
25.0001	Unobligated balance expiring	9,636			9,636		
39.0001	Budget authority	1,613,847	1,393,764	1,434,250	1,613,847	1,393,764	1,434,250
Budget authority:							
40.0001	Appropriation	1,207,419	1,332,513	1,434,250	1,207,419	1,332,513	1,434,250
40.1501	Appropriation (emergency)	431,100			431,100		
40.3601	Unobligated Balance Rescinded	-2,000	-8,000		-2,000	-8,000	
40.7601	Reduction pursuant to P.L. 106-113(-), Titl		-6,849			-6,849	
41.0001	Transferred to other accounts (-)	-22,672	-22,000		-22,672	-22,000	
42.0001	Transferred from other accounts		98,100			98,100	
43.0001	Appropriation (adjusted)	1,613,847	1,393,764	1,434,250	1,613,847	1,393,764	1,434,250

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

Identification code	17-1507-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
		1999 actual	2000 est.	2001 est.	1999 actual	2000 est.	2001 est.
Relation of obligations to outlays:							
71.0001	Obligations incurred				1,537,990	1,371,186	1,443,881
72.1001	From Federal sources: Receivables and unpaid, unfilled orders, SOY				-72,094	-2,859	-2,859
72.4001	Obligated balance, start of year				2,063,339	2,149,651	2,187,257
74.1001	From Federal sources: Receivables and unpaid, unfilled orders, EOY				2,859	2,859	2,859
74.4001	Obligated balance, end of year				-2,149,651	-2,187,257	-2,274,433
77.0001	Adjustments in expired accounts (net)				-98,938		
78.0001	Adjustments in unexpired accounts				-4,417		
90.0001	Outlays (net)				1,279,089	1,333,580	1,356,705

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

Identification code	17-1507-0-1-051	1999 actual	2000 est.	2001 est.

Direct obligations:				
125.101	Advisory and assistance services	15,005	14,000	14,000
	Purchases goods/services from Government accounts			
125.301	Purchase of goods/services from Government accounts	5		
125.303	Purchases from revolving funds	165,756	168,929	169,863
126.001	Supplies and materials		19,569	29,271
131.001	Equipment	1,337,237	1,168,688	1,229,767
		-----	-----	-----
199.001	Total Direct obligations	1,518,003	1,371,186	1,442,901
Reimbursable obligations:				
231.001	Equipment	2,515	10,000	10,980
		-----	-----	-----
299.001	Total Reimbursable obligations	2,515	10,000	10,980
		-----	-----	-----
999.901	Total obligations	1,520,518	1,381,186	1,453,881

Comparison of FY 2000 Program Requirements as Reflected
in the FY 2000 Budget with FY 2000 Program Requirements as
Shown in FY 2001 Budget (In Thousands of Dollars)

	FY 2000 Total Program Requirements <u>Per FY 2000 Budget</u>	FY 2000 Program Requirements <u>Per FY 2001 Budget</u>	Increase (+) or Decrease (-)
Ballistic Missiles	491.1	489.2	-1.9
Other Missiles	685.5	712.3	+26.8
Torpedoes and Related Equipment	123.6	115.7	-7.9
Other Weapons	8.6	37.9	+29.3
Spares and Repair Parts	48.6	46.6	-2.0
Subtotal Direct Program	1,357.4	1,401.8	+44.4
Reimbursable	74.8	10.0	-64.8
Total Fiscal Year	1,432.2	1,476.6	+44.4

Explanation of Changes in FY 2000 Program Requirements

1. Ballistic Missiles (-\$1.9 million)

This change results from the distribution of Congressional undistributed reductions.

2. Other Missiles (+\$26.8 million)

This increase is the net result of the following actions: -\$50.9 million Congressional reduction to the Tomahawk program; +\$20.0 million Congressional add for Hellfire; +\$10.0 million Congressional add for Penguin; +\$25.0 million Congressional add for Aerial Targets; +\$10.0 million Congressional add for ITALD; +\$7.7 million Congressional add for Weapons Industrial Facilities; -\$39.3 million Congressional reduction for JSOW BLU-108 procurement; -\$29.4 million Congressional reduction for AIM-9X procurement; +\$89.3 million in the Supplemental for HARM upgrades; +\$8.8 million in the Supplemental for SLAM-ER; -\$2.5 million for the distribution of Congressional undistributed reductions and a -\$22.0 million prior approval notification reprogramming from the SLAM-ER program required to fund the emergent high priority Defense Health Program shortfall.

3. Torpedoes and Related Equipment (-\$7.9 million)

This reduction reflects a -\$7.5 million Congressional reduction to the MK-48 ADCAP program and distribution of -\$0.4 million of Congressional undistributed reductions.

4. Other Weapons (+\$29.3 million)

The funding increase reflected in this budget activity is the result of Congressional adds of +\$28.0 million in the 5/54 Gun Mount program and +\$1.5 million to the Small Arms and Weapons program and distribution of -\$0.1 million of undistributed Congressional adds.

6. Spares & Repair Parts (\$-2.0 million)

This change reflects distribution of Congressional undistributed reductions.

Reimbursable Program (-\$64.8 million)

This reduction reflects prior years actual execution experience.

Comparison of FY 2000 Financing as Reflected in the FY 2000 Budget
with FY 2000 Financing as Shown in FY 2001 Budget
(In Thousands of Dollars)

	FY 2000 Financing Per <u>FY 2000 Budget</u>	FY 2000 Financing Per <u>FY 2001 Budget</u>	Increase (+) Decrease (-)
Program Requirements (Total)			
Program Requirements (Direct)	(1,357,400)	(1,401,764)	+44,364
Program Requirements (Reimb)	(74,800)	(10,000)	-64,800
Less:			
Anticipated Reimbursements	74,800	10,000	-64,800
Add:			
Unob bal avail, start of year to finance new budget plans		-8,000	-8,000
Appropriation	1,357,400	1,393,764	+36,364
Budget Authority:			
Appropriation	1,357,400	1,332,513	-24,887
Unobligated Balance Rescinded		-8,000	-8,000
Reduction for P.L. 106-113		-6,849	-6,849
Transferred to other accounts		-22,000	-22,000
Transferred from other accounts		98,100	+98,100
Appropriation (Adjusted)	1,357,400	1,393,764	+36,364

Explanation of Changes in Financing

The changes in financing within this account are the result of reductions for reimbursable authority to reflect recent actual execution data; rescission of unobligated balances; undistributed Congressional reductions required to balance the budget and prior notification reprogrammings. These are offset by the increase of \$98,100 thousand provided in the Emergency Supplemental to support the HARM and SLAM-ER programs.

Comparison of FY 1999 Program Requirements as Reflected
in the FY 2000 Budget with FY 1999 Program
Requirements as Shown in FY 2001 Budget (In Thousands of Dollars)

	FY 1999 Total Program Requirements <u>Per FY 2000 Budget</u>	FY 1999 Total Program Requirements <u>Per FY 2001 Budget</u>	Increase (+) or Decrease (-)
Ballistic Missiles	312.6	310.5	-2.1
Other Missiles	684.6	1,110.1	+425.5
Torpedoes and Related Equipment	93.9	93.3	-0.6
Other Weapons	47.9	49.2	+1.3
Spares and Repair Parts	45.8	44.8	-1.0
Subtotal Direct Program	1,184.7	1,607.8	+423.1
Reimbursable	74.8	74.8	-
Total Fiscal Year	1,259.5	1,682.6	+423.1

Explanation of Changes in FY 1999 Program Requirements

1. Ballistic Missiles (-\$2.1 million)

This adjustment reflects a rescission associated with inflation savings.

2. Other Missiles (+\$425.5 million)

This increase primarily reflects the +\$431.1 million received by the Tomahawk program in the FY 1999 Emergency Supplemental to remanufacture 624 older BLK II missiles into the more capable BLK III configuration. Other changes include below threshold reprogrammings to fund cancelled account adjustments (-\$1.5 million) and delaying the move to Tuscon, Arizona of the JSOW production line (+\$0.6 million) from Lewisville, Texas during Operation Allied Force; and rescission of inflation savings (-\$4.8 million).

3. Torpedoes and Related Equipment (-\$0.6 million)

This change is due to the rescission of inflation savings.

4. Other Weapons (+\$1.3 million)

This change is the net of minor reprogrammings (+\$1.5 million) primarily required to fund cancelled account adjustments which are funded in this budget activity and rescission of inflation savings (-\$0.2 million)

6. Spares & Repair Parts (-\$1.0 million)

This decrease is the net result of below threshold reprogrammings (-\$0.7 million) associated with keeping the JSOW production line open in Lewisville, Texas longer than planned during operation Allied Force and rescission of inflation savings (-\$0.3 million)

Comparison of FY 1999 Financing as Reflected in the FY 2000 Budget
with FY 1999 Financing as Shown in FY 2001 Budget
(In Thousands of Dollars)

	FY 1999 Financing Per <u>FY 2000 Budget</u>	FY 1999 Financing Per <u>FY 2001 Budget</u>	Increase (+) Decrease (-)
Program Requirements (Total)	1,259,547	1,608,829	+349,282
Program Requirements (Direct)	(1,184,747)	(1,607,847)	+423,100
Program Requirements (Reimb)	(74,800)	(980)	-73,820
Less:			
Anticipated Reimbursements	-74,800	-980	-73,820
Add:			
Federal Funds (-):	-	-	-
Unob bal avail, start of year to finance new budget plans	-2,000	-	+2,000
Unob bal transferred to other accts	-		
Reprogrammed from/to prior yea budget plan:	-	-11,636	-11,636
Available to finance subsequent year budget:	-	8,000	+8,000
Unobligated balance expiring	-	9,636	+9,636
Appropriation Adjusted	1,182,747	1,613,847	+431,100
Budget Authority:			
FY 1998 DoD Appropriations Act	1,207,419	1,207,419	-
Appropriation (emergency)		431,100	+431,100
Appn rescinded (unob bal)	-2,000	-2,000	-
Reduction pursuant to P.L.105-56	-	-	-
Transferred from other accts	-22,672	-22,672	-
Transferred to other accounts			
Appropriation (Adjusted)	1,182,747	1,613,847	+431,100

Explanation of Changes in Financing

Changes in financing of this appropriation are the result of the reimbursable program executing below previous estimates, and receipt of funding in the Emergency Supplemental (\$431,100 thousand) to support the Tomahawk program.

BUDGET ITEM JUSTIFICATION SHEET	DATE FEBRUARY 2000
--	-----------------------

APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY / BUDGET ACTIVITY 1 BALLISTIC MISSILES	P-1 ITEM NOMENCLATURE TRIDENT II MISSILE UGM-133A (D-5)
--	---

\$ in Millions	Prior Years	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	To Complete	Total Program
QUANTITY	355	5	12	12	12	12	12	5	0	425
End Cost	\$12,882.4	\$286.8	\$473.1	\$472.8	\$669.3	\$552.6	\$939.3	\$611.2	\$918.9	\$17,806.4
Less: Prior Year Adv. Proc.	(\$1,532.0)	(\$29.1)	(\$37.4)	(\$38.9)	(\$216.6)	(\$113.4)	(\$516.6)	(\$77.9)	(\$471.2)	(\$3,033.1)
Current Year Full Funding	\$11,350.4	\$257.7	\$435.7	\$433.9	\$452.7	\$439.2	\$422.7	\$533.3	\$447.7	\$14,773.3
Plus: Current Year Adv. Proc.	\$2,358.5	\$52.6	\$51.4	\$28.8	\$19.3	\$8.9	\$0.0	\$0.0	\$0.0	\$2,519.5
Plus: Initial Spares	\$30.0	\$5.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$35.4
Total New Obligational Authority	\$13,738.9	\$315.7	\$487.1	\$462.7	\$472.0	\$448.1	\$422.7	\$533.3	\$447.7	\$17,328.2
Missile Flyaway Unit Cost 1/	\$14.5	\$22.7	\$23.1	\$22.9	\$23.9	\$24.4	\$24.9	\$25.4	\$0.0	\$16.0

The TRIDENT II missile is carried on OHIO CLASS Fleet Ballistic Missile Submarines, ensuring that the United States continues to maintain a highly survivable strategic deterrent well into the 21st century. Deployment of the TRIDENT II missile (1) enhances Fleet Ballistic Missile Submarine survivability by increasing Sea Launched Ballistic Missile range at full payload to exploit the total patrol area available to the TRIDENT submarine, (2) minimizes total weapon system costs by increasing Sea Launched Ballistic Missile payload to the level permitted by the size of the TRIDENT submarine launch tube, thereby allowing mission capability to be achieved with fewer submarines, and (3) balances the Triad by adding efficient hard target kill capability to the Sea Launched Ballistic Missile.

Funding in this line is required to support the procurement of an all new TRIDENT II missile, initial production of which commenced in FY 1987 and supported a TRIDENT II missile Initial Operational Capability (IOC) in March 1990.

The FY 2001 full funding request of \$433.9 million will procure missiles at the minimum sustaining rate of 12 per year necessary to maintain weapon system quality, reliability, safety, and affordability. The full funding request will support the production of 12 TRIDENT II missiles with associated guidance systems, additional reentry systems hardware, continued support required to maintain SWFLANT's TRIDENT II missile processing capability, and equipment procurements associated with establishing a limited TRIDENT II capability at the Strategic Weapons Facility, Pacific (SWFPAC) at Bangor WA. Funding provides for a 14 SSBN TRIDENT II program, which assumes the backfit of 4 C-4 boats to the D-5 configuration.

The budget request includes \$5.155 million of cash payments to be deposited in the UK Trust Fund under the terms of the 28 July 1998 Secretary of Defense Memorandum of Understanding (MOU) with the United Kingdom.

The financial addendum to the MOU specifies annual payments totalling \$50.4 million for FY 2001 - FY 2005 subject to Congressional authorization and appropriation. These funds purchase D-5 missile components required for the U.S. program and are included within the full funding request for airframe and motor flyaway costs.

Notes: 1/ Unit cost shown is flyaway airframe and motor unit cost of which \$2.4M for FY 2001 was funded in prior years' Advance Procurement. Costs shown in the Total New Obligational Authority line include guidance systems, warhead components, flight test instrumentation, arms control and recurring production support costs.

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)		A. WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 1	B. UGM-133A TRIDENT II (D-5) MISSILE (3IDL)	C. LOCKHEED MARTIN MISSILES AND SPACE CO. SUNNYVALE, CA	D. FEBRUARY 2000						
WEAPON SYSTEM COST ELEMENTS	Ident. Code		FY 99 Unit cost	Qty	TOTAL COST	FY 00 Unit cost	Qty	TOTAL COST	FY 01 Unit cost	Qty	TOTAL COST
<u>MISSILE H/W - RECURRING</u>											
1		AIRFRAME & MOTOR FLYAWAY COST	22,720	5	113,600	23,100	12	277,200	22,900	12	274,800
2		GUIDANCE FLYAWAY COST	10,250	4	41,000	10,425	4	41,700	10,590	4	42,360
3		SUBTOTAL MISSILE AND GUIDANCE FLYAWAY COST			154,600			318,900			317,160
		LESS: PRIOR YEAR ADVANCE PROCUREMENT			(29,100)			(37,400)			(38,900)
4		SUBTOTAL MISSILE AND GUIDANCE NEW OBLIGATIONAL AUTHORITY (NOA)			133,955			284,175			280,885
		<i>1/ Includes payment of \$5,155 to the UK Trust Fund.</i>									
		<u>SUPPORT COSTS</u>									
5		WARHEAD COMPONENTS			19,100			16,100			12,400
6		SPECIAL PURPOSE INSTRUMENTATION			11,950			25,850			25,200
7		SPECIAL PURPOSE TOOLING & TEST EQUIPMENT			14,200			13,650			12,750
8		INF TREATY SUPPORT			7,400			7,400			5,600
9		ARMS CONTROL			6,600			5,200			0
10		CONTAINERS			40			40			40
11		SYSTEM INTEGRATION & PLANNING			11,300			11,600			11,800
12		SWFLANT PRODUCTION SUPPORT			13,900			13,250			12,000
13		SUPPORTABILITY MODS			15,414			15,959			8,050
14		GUIDANCE PARTS PROCUREMENT			6,000			6,050			6,100
15		SWFPAC PRODUCTION SUPPORT			3,900			16,100			12,600
16		PRODUCTION REQUALIFICATION			13,900			0			0
17		EOP MISSILE AND GUIDANCE COSTS			0			7,750			34,207
18		PIGA			0			12,550			12,300
		SUBTOTAL SUPPORT COST NOA			123,704			151,499			153,047
		CURRENT YEAR FULL FUNDING			257,659			435,674			433,932
		PLUS: CURRENT YEAR ADVANCE PROCUREMENT			52,625			51,400			28,801
		NET TRIDENT II COST			310,284			487,074			462,733
		PLUS: INITIAL SPARES			5,448			0			0
		TOTAL NEW OBLIGATIONAL AUTHORITY			315,732			487,074			462,733

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)								DATE: FEBRUARY 2000				
B. WEAPONS PROCUREMENT NAVY BUDGET ACTIVITY 1							P-1 ITEM NOMENCLATURE: TRIDENT II MISSILE UGM-133A (D-5)					
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE		
1. TRIDENT II MSL. FY 1998	LOCKHEED MARTIN MISSILES AND SPACE CO. (LMMS) SUNNYVALE, CA	SS/CPIF	STRATEGIC SYSTEMS PROGRAMS (SSP)	10/97	10/99	5	21,820	YES	NO			
FY 1999				LMMS	SS/CPIF	SSP	10/98	10/00	5	22,720	YES	NO
FY 2000				LMMS	SS/CPIF	SSP	10/99	10/01	12	23,100	YES	NO
FY 2001				LMMS	SS/CPIF	SSP	10/00	10/02	12	22,900	YES	NO
D. REMARKS Assumes U.K. participation in FY 1998 - FY 1999.												

UNCLASSIFIED

FY 01 BUDGET PRODUCTION SCHEDULE												P-1 ITEM NOMENCLATURE: TRIDENT II MISSILE UGM - 133A (D-5)												DATE: FEBRUARY 2000																																										
FISCAL YEAR 2002												FISCAL YEAR 2003												FISCAL YEAR 2004												L A T E R																														
CALENDAR YEAR 2002												CALENDAR YEAR 2003												CALENDAR YEAR 2004																																										
O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P																															
TRIDENT II MISSILE FY 2000																														1	1	1	1	1	1	1	1	1	1	1																									0	
FY 2001																																										1	1	1	1	1	1	1	1	1	1	1	1												0	
FY 2002																																																						1	1	1	1	1	1	1	1	1	1	1	1	0
FY 2003																																																																	12	
FY 2004																																																																	12	
FY 2005																																																																	5	
TOTAL																														1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	29		
REMARKS 1/ The Navy's budget estimates for D-5 missile procurement and deliveries assume U.K. participation in FY 1997 - FY 1999.																																																																		

UNCLASSIFIED

FY 01 BUDGET PRODUCTION SCHEDULE												P-1 ITEM NOMENCLATURE: TRIDENT II MISSILE UGM - 133A (D-5)												DATE: FEBRUARY 2000																																
FISCAL YEAR 2005												FISCAL YEAR 2006												FISCAL YEAR 2007												L A T E R																				
CALENDAR YEAR 2005												CALENDAR YEAR 2006												CALENDAR YEAR 2007																																
O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P																					
TRIDENT II MISSILE FY 2003												1	1	1	1	1	1	1	1	1	1	1																											0							
FY 2004																							1	1	1	1	1	1	1	1	1	1	1	1																						0
FY 2005																																			1	1	1	1	1																0	
TOTAL												1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
REMARKS												O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P									

BUDGET ITEM JUSTIFICATION SHEET	DATE FEBRUARY 2000
--	-----------------------

APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY / BUDGET ACTIVITY 1 BALLISTIC MISSILES	P-1 ITEM NOMENCLATURE TRIDENT II ADVANCE PROCUREMENT
--	--

	Prior Years	FY99	FY00	FY01	FY02	FY03	FY04	FY05	To Complete	Total Program
QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cost (in millions)	\$2,358.5	\$52.6	\$51.4	\$28.8	\$19.3	\$8.9	\$0.0	\$0.0	\$0.0	\$2,519.5
Initial Spares	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total (in Millions)	\$2,358.5	\$52.6	\$51.4	\$28.8	\$19.3	\$8.9	\$0.0	\$0.0	\$0.0	\$2,519.5
Unit Cost (in Millions)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Funding in this line item provides for the advance procurement of various components, subassemblies and raw materials which are required to support the future production and processing of TRIDENT II (D-5) missiles and MK-6 guidance systems. Total advance procurement requirements comprise two major subsets of commodity acquisition: traditional, or long lead advance procurement, which includes those items having longer manufacturing leadtimes than the using D-5 items; and production continuity advance procurement, which entails the purchase of certain critical components earlier than leadtimes alone would dictate to ensure their continuous production. These latter production continuity procurements encompass a broad range of components and materials which must be produced at minimum, uninterrupted rates on dedicated production lines as well as life-of-type or one-time quantity buys of items required to support the total planned program. The quality and homogeneity obtained by these means are essential to assure the consistent performance reliability of the missiles to be procured for the TRIDENT II program.

The FY 2001 request of \$28.8 million will provide \$9.5 million for the advance procurement of long lead items required to support the FY 2002 full funded manufacture of D-5 missiles and \$19.3 million for advance procurement of components required to maintain D-5 missile component production lines at the lowest sustaining rate consistent with quality, reliability, safety and cost.

UNCLASSIFIED

WEAPON SYSTEM ADVANCE PROCUREMENT EXHIBIT (P-10) (PROCUREMENT OF ADVANCE DESIGN AND MATERIAL)					FY 1999 FOR FY 2000	
(TOA, Dollars in tenths of Millions)					DATE: FEBRUARY 2000	
Weapon System Type -		First System Award Date	First System Completion Date		Interval Between System Completions	
UGM 133A TRIDENT II MISSILE		FY 1987	FY 1989			
Advance Procurement/Advance Funding Items	Quantity	End Item			Unit Cost	Total Cost
		Date Contract Award Planned/Required	Delivery Date of First Equipment Required	Production Lead Time in Months (Adm/Prod)-Total		
1. CFE AIRFRAME AND MOTOR LONG LEAD	10 (see below)	10/99 *	10/01 *	9/24	1.6	16.0
AIRFRAME PRODUCTION CONTINUITY						36.6
TOTAL						52.6
<p>Narrative Description</p> <p>Long Lead funding allows for the delivery of TRIDENT II missiles in 2 versus 3 years. Long Lead items for two of the twelve missiles requested for the October 1999 contract were funded in FY 1998.</p> <p>Production continuity funds are required to maintain continuous production for critical components at the lowest sustaining rate consistent with quality, reliability, safety and cost.</p> <p>* Long Lead procurements are awarded in the preceding year. The dates shown pertain to the full funded D-5 missiles to which the Long Lead will be applied.</p>						

UNCLASSIFIED

WEAPON SYSTEM ADVANCE PROCUREMENT EXHIBIT (P-10) (PROCUREMENT OF ADVANCE DESIGN AND MATERIAL) (TOA, Dollars in tenths of Millions)					FY 2000 FOR FY 2001	
DATE: FEBRUARY 2000						
Weapon System Type -		First System Award Date	First System Completion Date		Interval Between System Completions	
UGM 133A TRIDENT II MISSILE		FY 1987	FY 1989			
Advance Procurement/Advance Funding Items	Quantity	End Item			Unit Cost	Total Cost
		Date Contract Award Planned/Required	Delivery Date of First Equipment Required	Production Lead Time in Months (Adm/Prod)-Total		
1. CFE AIRFRAME AND MOTOR LONG LEAD	12	10/00 *	10/02 *	9/24	1.6	19.2
AIRFRAME PRODUCTION CONTINUITY						32.2
TOTAL						51.4
<p>Narrative Description</p> <p>Long Lead funding allows for the delivery of TRIDENT II missiles in 2 versus 3 years.</p> <p>Production continuity funds are required to maintain continuous production for critical components at the lowest sustaining rate consistent with quality, reliability, safety and cost.</p> <p>* Long Lead procurements are awarded in the preceding year. The dates shown pertain to the full funded D-5 missiles to which the Long Lead will be applied.</p>						

UNCLASSIFIED

WEAPON SYSTEM ADVANCE PROCUREMENT EXHIBIT (P-10) (PROCUREMENT OF ADVANCE DESIGN AND MATERIAL)					FY 2001 FOR FY 2002	
(TOA, Dollars in tenths of Millions)					DATE: FEBRUARY 2000	
Weapon System Type -		First System Award Date	First System Completion Date		Interval Between System Completions	
UGM 133A TRIDENT II MISSILE		FY 1987	FY 1989			
Advance Procurement/Advance Funding Items	Quantity	End Item			Unit Cost	Total Cost
		Date Contract Award Planned/Required	Delivery Date of First Equipment Required	Production Lead Time in Months (Adm/Prod)-Total		
1. CFE AIRFRAME AND MOTOR LONG LEAD	12	10/01 *	10/03 *	9/24	0.8	9.5
AIRFRAME PRODUCTION CONTINUITY						19.3
TOTAL						28.8
<p>Narrative Description Long Lead funding allows for the delivery of TRIDENT II missiles in 2 versus 3 years.</p> <p>Production continuity funds are required to maintain continuous production for critical components at the lowest sustaining rate consistent with quality, reliability, safety and cost.</p> <p>* Long Lead procurements are awarded in the preceding year. The dates shown pertain to the full funded D-5 missiles to which the Long Lead will be applied.</p>						

BUDGET ITEM JUSTIFICATION SHEET	DATE February-00
--	---------------------

APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY / BUDGET ACTIVITY 1 BALLISTIC MISSILES	P-1 ITEM NOMENCLATURE MISSILE INDUSTRIAL FACILITIES
--	---

	Prior Years	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	To Complete	Total Program
QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cost (in millions)	N/A	\$0.2	\$2.2	\$1.2	\$1.3	\$1.3	\$1.3	\$1.4	N/A	N/A
Initial Spares	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total (in Millions)	N/A	\$0.2	\$2.2	\$1.2	\$1.3	\$1.3	\$1.3	\$1.4	N/A	N/A
Unit Cost (in Millions)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Funding for Missile Industrial Facilities provides for capital maintenance projects at Navy-owned Naval Industrial Reserve Ordnance Plants (NIROPS) at Sunnyvale and Santa Cruz, California, and Bacchus, Utah in support of the Fleet Ballistic Missile program.

Projects planned in FY 1999 through FY 2001 include additions and modifications to, and rehabilitation of, civil works, non-severable equipment, and real property. Among those projects are upgrades and improvements such as upgrading building electrical systems, replacing conductive floors, replacing insulation, replacing water and steam piping, paving roads and parking areas and painting buildings.

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)		A. WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 1		B. MISSILE INDUSTRIAL FACILITIES (SIDG)			C. LOCKHEED MARTIN MISSILES AND SPACE CO. SUNNYVALE, CA			FEBRUARY 2000
WEAPON SYSTEM COST ELEMENTS	Ident. Code	FY 99 Unit cost	Qty	TOTAL COST	FY 00 Unit cost	Qty	TOTAL COST	FY 01 Unit cost	Qty	TOTAL COST
CAPITAL MAINTENANCE				197			2,172			1,232
TOTAL MISSILE INDUSTRIAL FACILITIES				197			2,172			1,232

CLASSIFICATION:

UNCLASSIFIED

**BUDGET ITEM JUSTIFICATION SHEET
P-40**

**DATE:
February-00**

APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy							P-1 ITEM NOMENCLATURE TOMAHAWK (J2EL)(PEO(CU))(BLI: 210100)					
Program Element for Code B Items: BA2/OTHER MISSILES P.E. # 0204229N							Other Related Program Elements					
	Prior Years	ID Code		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	* Total Program
QUANTITY	4,201			624	0	0	45	90	284	342	592	5,554
COST (\$M)	\$7,500.6			\$439.2	\$0.0	\$0.0	\$57.6	\$85.5	\$271.3	\$245.5	\$690.5	\$9,290.3
Initial Spares (\$M)	\$310.1			\$3.1	\$1.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$314.4
Total (\$M)	\$7,810.7			\$442.3	\$1.1	\$0.0	\$57.6	\$85.5	\$271.3	\$245.5	\$690.5	\$9,604.7
Procurement Unit Cost (\$M)	1,859						1.280	0.950	0.955	0.718	1.166	1.729
Hardware unit Cost	\$1,335.6						0.839	0.615	0.620	0.633	0.652	

Tomahawk provides an attack capability against targets at sea (Antiship Tomahawk) and on land (Land Attack Tomahawk), and can be launched from both surface ships (RGM) and submarines (UGM). The Land attack version can be fitted with either conventional high explosives, nuclear warheads or submunition dispenser.

Tomahawk consists of five variants: (1) RGM/UGM-109A, Land Attack Nuclear; (2) RGM/UGM-109B, Antiship; (3) RGM/UGM-109C, Land Attack Conventional; (4) RGM/UGM-109D, Land Attack Submunition Dispenser; (5) RGM/UGM-109E, Tactical Tomahawk. The Land Attack Nuclear and Antiship versions are no longer in Fleet use. The land-attack version in the Fleet is used for precision destruction of targets at long range.

Production of the Tactical Tomahawk missile begins with a 45 unit Low Rate Initial Production (LRIP) buy in FY2002.

* Total quantity does not include remanufactured missile quantities.

Characterstics and dimensions (approximate)

Weight (with booster and capsule) (UGM-109): 4,300 pounds

Weight (with booster and canister) (RGM-109): 4,000 pounds

Length (with booster): 20.5 feet

Wing Span: 8.6 feet

Cruise Speed: High Subsonic

Contractor: Raytheon Missiles Systems Company

P-1 SHOPPING LIST

ITEM NO 4

PAGE NO 1

CLASSIFICATION:

UNCLASSIFIED

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET SUBMIT
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature & Popular Name: TOMAHAWK (J2EL)(PEO(CU)) (BLI: 210100)

Date: February-00

Cost Elements	Prior Years	FY 1999			FY 2000			FY 2001		
	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
<u>Missile Hardware</u>										
Previous Tomahawk Production	5,611,035									
Tactical Tomahawk	0	0	0	0	0	0	0	0	0	0
Remanufacture (Block III)	<u>185,117</u>	<u>624</u>	<u>636</u>	<u>396,671</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Hardware	5,796,152	624	636	396,671	0	0	0	0	0	0
<u>Procurement Support</u>										
Product Improvement	375,302			6,107			0			0
Systems Engineering Integration	272,086			8,559			0			0
Production Engineering	<u>585,663</u>			<u>22,405</u>			<u>0</u>			<u>0</u>
Total Procurement Support	1,233,051			37,071			0			0
Total Flyaway Cost	7,029,203			433,742			0			0
<u>Other Hardware</u>										
CCLS Submarine Capsules	0	0	0	0	0	0	0	0	0	0
<u>Fleet Support</u>										
Theater Mission Planning Center	251,544			5,500			0			0
Support Equipment	113,281			0			0			0
Training Equipment	78,019			0			0			0
Documentation	<u>28,534</u>			<u>0</u>			<u>0</u>			<u>0</u>
Total Fleet Support	471,378			5,500			0			0
Gross Weapons System	7,500,581			439,242			0			0
Modifications	211,205			0			0			0
Initial Spares	<u>310,135</u>			<u>3,103</u>			<u>1,136</u>			<u>0</u>
Total Program Cost	8,021,921			442,345			1,136			0

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET SUBMIT
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature & Popular Name:

Cost Elements	FY 2002			FY 2003			FY 2004			FY 2005			To Complete	
	Quantity	Unit Cost	Total Cost	Costs	Total Cost									
<u>Missile Hardware</u>														
Previous Tomahawk Production														5,611,035
Tactical Tomahawk	45	839	37,755	90	615	55,390	284	620	176,195	342	633	216,425	385,939	871,704
Remanufacture (Block III)	0	0	0	0	0	0	0	0	0	0	0	0	0	581,788
Total Hardware	45	839	37,755	90	615	55,390	284	620	176,195	342	633	216,425	385,939	7,064,527
<u>Procurement Support</u>														
Product Improvement			0			0			0			0	60,774	442,183
Systems Engineering Integration			5,824			8,411			8,300			9,375	51,048	363,603
Production Engineering			9,600			13,635			17,593			23,484	88,036	760,416
Total Procurement Support			15,424			22,046			25,893			32,859	199,858	1,566,202
Total Flyaway Cost			53,179			77,436			202,088			249,284	585,797	8,630,729
<u>Other Hardware</u>														
CCLS Submarine Capsules	3	317	951	13	329	4,277	44	337	14,828	46	338	15,548	8,390	43,994
<u>Fleet Support</u>														
Theater Mission Planning Center			0			0			0			0	0	257,044
Support Equipment			1,218			1,400			1,500			2,652	49,117	169,168
Training Equipment			1,750			1,800			2,139			2,200	34,672	120,580
Documentation			500			600			750			850	12,521	43,755
Total Fleet Support			3,468			3,800			4,389			5,702	96,310	590,547
<u>EOQ/Termination Liability</u>														
			0			0			50,000			-25,000	0	25,000
Gross Weapons System			57,598			85,513			271,305			245,534	690,497	9,290,270
Modifications			0			0			0			0	0	211,205
Initial Spares			0			0			0			0	0	314,374
Total Program Cost			57,598			85,513			271,305			245,534	690,497	9,815,849

ITEM NO.

P-1 SHOPPING LIST
 4 PAGE NO 2a

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System TOMAHAWK		A. DATE February-00			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA2/Other Missiles					C. P-1 ITEM NOMENCLATURE Tomahawk (PEO(CU)) (BLI: 210100)				SUBHEAD J2EL	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<u>All-Up-Round</u> 01000/FY97	120	535	NAVAIR	N/A	SS/OPTION	Raytheon Missile Systems Co.	Jan 97	Oct 98	YES	N/A
01000/FY99 (Reman)	624	636	NAVAIR	N/A	SS/OPTION	Raytheon Missile Systems Co.	Jun 99	May 01	YES	N/A
D. REMARKS										

APPROPRIATION/BUDGET ACTIVITY Weapon System
Weapons Procurement, Navy **TOMAHAWK** P-1 ITEM NOMENCLATURE
Tomahawk (PEO(CU))(BLI: 210100)

Item	Manufacturer's Name and Location	Production Rate			Procurement Leadtimes				Total	Unit of Measure
		MSR	1-8-5	MAX	Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT		
All-Up-Round	Raytheon Missiles Systems Co.									
	Tucson, AZ	N/A	20	75	6	3	21		24	Each

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2002												FISCAL YEAR 2003												B A L						
						2001						CALENDAR YEAR 2002						CALENDAR YEAR 2003																		
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
						Remanufacture of Existing TLAM Missiles into Block III Config	1999		424	152	272	45	41	42	42	42	30	30																		
Remanufacture of Existing TASM Missiles into Block III Config	1999		200	0	200		2	2	2	2	3	3	33	33	28	26	26	20	20																	

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2004												FISCAL YEAR 2005												B A L
						2003						CALENDAR YEAR 2004						CALENDAR YEAR 2005												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

Remarks:

CLASSIFICATION:

UNCLASSIFIED

**BUDGET ITEM JUSTIFICATION SHEET
P-40**

**DATE:
February 2000**

APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-(2) Other Missiles							P-1 ITEM NOMENCLATURE Evolved Seasparrow Missile (ESSM) (LI#230700)					
Program Element for Code B Items: 0604755N, Proj. 20173							Other Related Program Elements					
	Prior Years	ID Code		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY						36	85	161	143	161	1,490	2,076
COST (\$M)	\$12.8	B		\$12.6	\$11.6	\$40.0	\$67.3	\$114.9	\$103.5	\$112.9	\$869.6	\$1,345.2
Initial Spares (\$M)												\$0.0

ITEM DESCRIPTION/JUSTIFICATION:

The Evolved Seasparrow Missile (ESSM) Program is an international cooperative effort to design, develop, test, and produce a new and improved version of the NATO SEASPARROW missile (RIM-7P) with the kinematic performance to defeat current and projected threats that possess low altitude, high velocity and maneuver characteristics beyond the engagement capabilities of the RIM-7P. The ESSM will provide an evolved kinematically improved aft-end missile section for mating, as an all up round, with the modified RIM-7P forebody guidance and warhead section. The ESSM improvement will provide the capability to counter maneuvering anti-ship missiles, expand battle space, and increase system firepower. The ESSM is designed for "quad pack" use in the MK41 Vertical Launching System.

ESSM is a cooperative effort among ten NATO Seasparrow nations (Australia, Canada, Denmark, Germany, Greece, Netherlands, Norway, Spain, Turkey, and the U.S.). An addendum to the NATO Seasparrow Surface Missile System Memorandum of Understanding (MOU), covering the Engineering and Manufacturing Development (EMD) phase of the ESSM was signed in June 1995. The MOU for the cooperative production of ESSM was signed 27 December 1997.

The FY-00 budget provides continued funding for the U.S share of production support per the MOU signed by a representative of the U.S. Department of Defense 7 August 1997. The agreement provides for annual shared production and tooling and test equipment support even though one or more of the consortium members may not participate in missile production in a specific year. The FY 99 and FY 00 funding supports the Low-Rate-Initial -Production (LRIP) contract efforts to commence in August 00 .

The FY 01 request will support a Low Rate Initial Production buy of 36 missiles and the U.S. share of support as defined in the MOU. The U.S. LRIP quantity is 121 missiles (FY 01-02) of total planned production of 2,076 or 5.8%. ESSM RDT&E funding is included in program element 0604755N, Project 20173.

Estimates include competitive sourcing savings associated with consolidation of production support contracting efforts.

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

WEAPONS PROCUREMENT, NAVY
 FY 2001 DEPARTMENT OF THE NAVY BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)

Missile Nomenclature & Popular Name: Evolved Seasparrow Missile (ESSM) (LI#230700)

Date: February 2000

Cost Elements

	FY 1999	Quantity		FY 2000	Quantity		FY 2001	Quantity	
	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
<u>Missile Hardware</u>									
All Up Round (w/GFE Guidance Section)									
All Up Round (w/new Guidance Section)							30	558	16,740
AEGIS S-Band Uplink/Downlink							6	601	3,606
Warhead Compatible Telemeter							36	104	3,744
MK 25 Quadpack Canisters							8	72	576
Total Hardware							10	300	3,000
									27,666

Procurement Support

Tooling and Test Equipment									
Production Engineering			6,147						
			6,494			11,625			12,335
Total Procurement Support									
			12,641			11,625			12,335
Total Flyaway Cost									
			12,641			11,625			40,001

Fleet Support

Total Fleet Support

Weapon System Cost	0								
--------------------	---	--	--	--	--	--	--	--	--

Total Program Cost	0		12,641			11,625			40,001
--------------------	---	--	--------	--	--	--------	--	--	--------

ITEM NO.

PAGE NO.

CLASSIFICATION:

5

2

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Weapons Procurement, Navy/BA-(2) Other Missiles					Evolved Seasparrow Missile (ESSM) (LI#230700)				12ES	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FISCAL YEAR - 2001										
All Up Round/GFE G/S	30	558	NAVSEA	June 1999	SS/FPI Option	Raytheon Systems Co., Tucson, AZ	Feb 01	Feb 03	Yes	Mar 00
All Up Round/New G/S	6	601	NAVSEA	June 1999	SS/FPI Option	Raytheon Systems Co., Tucson, AZ	Feb 01	Feb 03	Yes	Mar 00
AEGIS S-Band	36	104	NAVSEA	June 1999	SS/FPI Option	Raytheon Systems Co., Tucson, AZ	Feb 01	Feb 03	Yes	Mar 00
Warhead Compatable Telemeter	8	72	NAVSEA	June 1999	SS/FPI Option	Raytheon Systems Co., Tucson, AZ	Feb 01	Feb 03	Yes	Mar 00
MK 25 Canister	10	300	NAVSEA		SS/Option	United Defense, Minneapolis, /MN	Jan 01	Jan 03	Yes	
D. REMARKS										

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-20, Requirements Study			APPROPRIATION/BUDGET ACTIVITY				DATE:	
P-1 ITEM NOMENCLATURE			Weapons Procurement, Navy/BA-(2) Other Missiles				February 2000	
Evolved Seasparrow Missile (ESSM) (LI#230700)			Admin Leadtime (after Oct1):		Prod Leadtime :			
			4 Months		24 months			
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Buy Summary	0	0	0	36	85	161	143	161
Unit Cost (\$K)	0.0	0.0	0.0	1111.1	791.5	713.7	723.6	701.0
Total Cost (\$K)	\$0.0	\$0.0	\$0.0	\$40,001.0	\$67,281.0	\$114,910.0	\$103,471.0	\$112,865.0
Asset Dynamics								
Beginning Asset Position		0	0	0	0	0	24	76
Deliveries from all prior year funding								
Deliveries from FY 1999 funding								
Deliveries from FY 2000 funding								
Deliveries from FY 2001 funding						32	4	
Deliveries from subsequent years' funding							64	121
Other Gains								
Combat Losses/Usage								
Training Losses/Usage								
Test Losses/Usage						-8	-16	-23
Other Losses/Usage								
Disposals/Retirements/Attritions/etc.								
End of Year Asset Position	0	0	0	0	0	24	76	174
Inventory Objective or Current Authorized Allowance						110	166	276
Inventory Objective	Actual Training Expenditures	Other than Training Usage	Disposals (Vehicles/Other)	Vehicles Eligible for FY 2000 Replacement:	N/A	Aircraft: TOAI:	N/A	
Assets Rqd For Combat Loads:	FY 1998 thru	FY 1998 thru	FY 1998 thru	Vehicles Eligible for FY 2001 Replacement:	N/A	PAA: TAI	N/A	
WRM Rqmt:	FY 1997: 0	FY 1997: 0	FY 1997: 0	Vehicle Augment:	N/A	Attrition Res:	N/A	
Pipeline:	FY 1996: 0	FY 1996: 0	FY 1996: 0			BAI	N/A	
Other:	FY 1995: 0	FY 1995: 0	FY 1995: 0			Inactive Inv:	N/A	
TOTAL:						Storage:	N/A	
Remarks:								

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET										DATE:	
P-40										February 2000	
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE					
Weapons Procurement, Navy/BA 2 Other Missiles						AMRAAM					
Program Element for Code B Items:						Other Related Program Elements					
	Prior Years	ID Code	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY	1,283		100	100	75	75	75	75	75	561	2,419
COST (\$M)	\$961.2		\$50.5	\$46.1	\$38.9	\$45.8	\$45.7	\$43.7	\$44.7	\$253.6	\$1,530.2
Initial Spares (\$M)	\$24.5		\$0.4	\$0.2	\$0.2	\$0.3	\$0.6	\$0.3	\$0.2	\$1.0	\$27.7
Total (\$M)	\$985.7		\$50.9	\$46.3	\$39.1	\$46.1	\$46.3	\$44.0	\$44.9	\$254.6	\$1,557.9
Unit Cost (\$M)	\$0.768		\$0.509	\$0.463	\$0.521	\$0.615	\$0.617	\$0.587	\$0.599	\$0.454	\$0.644
MISSION AND DESCRIPTION:											
<p>The Advanced Medium Range Air-to-Air Missile (AMRAAM) is the next generation all-weather, all-environment radar guided missile developed by the Air Force and Navy to augment the AIM-7 Sparrow. AMRAAM is smaller, faster, lighter, and has improved capabilities against very low-altitude and high-altitude targets in an electronic countermeasure environment. AMRAAM incorporates an active radar in conjunction with an inertial reference unit and microcomputer system which makes the missile less dependent upon the aircraft fire control system. This advanced capability enables the pilot to aim and fire several missiles at multiple targets.</p>											
FY2001 PROGRAM JUSTIFICATION:											
<p>75 missiles will be procured in FY 2001 along with non-recurring support costs such as; government field activity technical, test, and logistics support, procurement of test articles, test equipment to support the AIM-120C configuration, and procurement of peculiar support equipment.</p>											
Qty Summary:											
			<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>		
Navy			100	100	75	75	75	75	75		
Air Force			180	187	204	222	222	221	221		
FMS/Other			<u>317</u>	<u>521</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>		
Total			597	808	879	897	897	896	896		

Columns may not add due to rounding.

P-1 SHOPPING LIST

CLASSIFICATION:

DD Form 2454, JUN 86

ITEM NO. 6

PAGE NO 1

UNCLASSIFIED

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET SUBMISSION
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature & Popular Name: **AMRAAM**

Date: **February 2000**

<u>Cost Elements</u>	<u>Prior Years Total Cost</u>	<u>FY 1999 Quantity</u>	<u>Quantity Unit Cost</u>	<u>100 Total Cost</u>	<u>FY 2000 Quantity</u>	<u>Quantity Unit Cost</u>	<u>100 Total Cost</u>	<u>FY 2001 Quantity</u>	<u>Quantity Unit Cost</u>	<u>75 Total Cost</u>
<u>Missile Hardware</u>										
Guidance & Control	551.626	100	0.321	32.122	100	0.261	26.069	75	0.260	19.490
Propulsion	49.034	100	0.029	2.855	100	0.023	2.317	75	0.023	1.732
Warhead	12.258	100	0.007	0.714	100	0.006	0.579	75	0.006	0.433
ECO	18.400			0.924			1.343			0.541
Production Tech Support	143.192			5.339			6.364			8.065
ST&TE	40.120			0.000			0.000			0.000
Containers	2.230			0.000			0.000			0.000
Production Test	46.320			3.602			4.885			5.013
Total Flyaway Cost	863.180	100	0.456	45.556	100	0.416	41.557	75	0.470	35.274
<u>Fleet Support</u>										
Test Equipment	55.201			0.753			0.510			0.454
Handling Equipment	0.675			0.120			0.000			0.000
Training Equipment	4.078			0.105			0.148			0.152
ILS	36.096			3.847			3.780			3.024
Data & Pubs	1.942			0.111			0.078			0.039
Total Fleet Support	97.992			4.936			4.516			3.669
Weapon System Cost	961.172	100	0.505	50.492	100	0.461	46.073	75	0.519	38.943
Modifications										
Initial Spares	24.477			0.398			0.197			0.182
Total Program Cost	985.649	100	0.509	50.890	100	0.463	46.270	75	0.522	39.125

WEAPONS PROCUREMENT, NAVY
FY 2001 PRESIDENT'S BUDGET SUBMISSION
MISSILE COST ANALYSIS
EXHIBIT P-5
(Dollars in Millions)

Missile Nomenclature & Popular Name: **AMRAAM**

Date: **February 2000**

Cost Elements	FY 2002			FY 2003			FY 2004			FY 2005			To Complete	
	Quantity	Unit Cost	Total Cost	Costs	Total Cost									
Missile Hardware														
Guidance & Control	75	0.293	21.957	75	0.292	21.932	75	0.294	22.055	75	0.296	22.200	164.710	882.161
Propulsion	75	0.026	1.952	75	0.026	1.950	75	0.026	1.960	75	0.026	1.973	14.641	78.414
Warhead	75	0.007	0.488	75	0.006	0.487	75	0.007	0.490	75	0.007	0.493	3.660	19.602
ECO			1.103			0.966			0.886			0.891	9.151	34.205
Production Tech Support			9.710			8.476			8.062			5.916	21.490	216.614
ST&TE			0.000			0.000			0.000			0.000	0.224	40.344
Containers			0.000			0.000			0.000			0.000	0.000	2.230
Production Test			6.161			8.295			6.249			8.363	19.768	108.656
Total Flyaway Cost	75	0.552	41.371	75	0.561	42.106	75	0.529	39.702	75	0.531	39.836	233.644	1,382.226
Fleet Support														
Test Equipment			0.809			0.815			0.375			0.373	1.537	60.827
Handling Equipment			0.000			0.000			0.000			0.000	0.000	0.795
Training Equipment			0.135			0.185			0.155			0.185	0.762	5.905
ILS			3.448			2.583			3.483			4.265	17.572	78.098
Data & Pubs			0.067			0.035			0.034			0.033	0.132	2.471
Total Fleet Support			4.459			3.618			4.047			4.856	20.003	148.096
Weapon System Cost	75	0.611	45.830	75	0.610	45.724	75	0.583	43.749	75	0.596	44.692	253.647	1,530.322
Modifications														
Initial Spares			0.264			0.557			0.315			0.223	1.000	27.613
Total Program Cost	75	0.615	46.094	75	0.617	46.281	75	0.588	44.064	75	0.599	44.915	254.647	1,557.935

UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System AMRAAM		A. DATE February 2000			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA 2 Other Missiles					C. P-1 ITEM NOMENCLATURE AMRAAM				SUBHEAD Y2GB	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECHNICAL DATA PACKAGES AVAILABLE NOW	IF NO WHEN AVAILABLE
FY 1999	100	366	Eglin AFB, FI	10-1-98	SS/FP	Lot XIII Raytheon, Tucson AZ	4/31/99	10/00	YES	
FY 2000	100	303	Eglin AFB, FI	10-1-99	SS/FP	Lot XIV Raytheon, Tucson AZ	3/31/00	09/01	YES	
FY 2001	75	296	Eglin AFB, FI	10-1-00	SS/FP	Lot XV Raytheon, Tucson AZ	3/31/01	08/02	YES	
D. REMARKS										

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET

P-40

Date: February 2000

APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE					
Weapons Procurement, Navy/BA-2 Other Missiles						Joint Standoff Weapon (JSOW) (Y2JS)					
Program Element for Code B Items:						Other Related Program Elements					
Code B - P.E. 0604727N						0604727F, 27324F					
	Prior Years	ID Code	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY	235	B	328	454	636	762	739	663	574	8,609	13,000
COST (\$M)	\$167.5		\$118.1	\$115.1	\$171.6	\$200.9	\$194.9	\$167.9	\$139.2	\$1,992.6	\$3,267.9
Initial Spares (\$M)	\$0.0		\$0.3	\$0.1	\$0.3	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9
Total (\$M)	\$167.5		\$118.4	\$115.2	\$171.9	\$201.1	\$194.9	\$167.9	\$139.2	\$1,992.6	\$3,268.8
Unit Cost (\$M)	N/A		0.361	0.254	0.270	0.264	0.264	0.253	0.243	0.231	0.251

Joint Standoff Weapons (JSOW) is a joint USN/USAF program with the USN as the lead service. The JSOW program provides an air-to-ground glide weapon (AGM-154) capable of attacking a variety of targets during day, night, and adverse weather conditions for use against fixed area targets. The JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of most target area surface-to-air threat systems. The JSOW Global Positioning System (GPS)/Inertial Navigation System (INS) capability will allow several target kills per aircraft sortie. The Joint Mission Planning System (JMPS), funded in FY 00 - FY 03, provides a common Air Force and Navy mission planning system. This system replaces the existing Navy Mission Planning System, TAMPS. The JSOW Baseline variant (AGM-154A) will be integrated on USN and USAF aircraft, with a Joint (A/F, USN) planned inventory of 11,800 units. USN will procure an inventory of 8,800 All-Up-Rounds (AURs) for integration on F/A-18 and AV-8B aircraft, and the USAF will procure an inventory of 3,000 AURs for integration on F-16C/D, F-15E, B-1B and B-2 aircraft. JSOW Baseline completed EMD testing, including initial Operational Test, with an exceptional test success rate of 91.3% (52 of 57). JSOW Baseline full Operational Testing (OPEVAL) was completed in July 1997. The JSOW BLU-108 variant (AGM-154B) will be integrated on USN and USAF aircraft with a joint (USAF/USN) inventory of 4,314. USN will procure an inventory of 1,200 AURs, and the USAF will procure an inventory of 3,124 AURs. JSOW BLU-108 Developmental Testing is completed. The Navy will procure 3000 JSOW Unitary AURs, which will incorporate a 500 pound warhead, beginning in FY 2002. The JSOW Baseline (AGM 154A) will commence Full Rate Production (FRP) in FY 99 and the JSOW BLU-108 will commence Low Rate Initial Production (LRIP) in FY 01.

CLASSIFICATION:

UNCLASSIFIED

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature

Date: February 2000

& Popular Name: Joint Standoff Weapons (JSOW)

Cost Elements	Prior Years	FY 1999	Quantity		FY 2000	Quantity		FY 2001	Quantity	
	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
<u>Missile Hardware</u>										
All Up Round (AUR)	93.218	328		70.852	454		88.646	636		134.363
Contractor (Warranty/ECO/Data)	2.301			6.814			8.160			9.658
Total Hardware	95.519	328	0.237	77.666	454	0.213	96.806	636	0.226	144.021
<u>Procurement Support</u>										
LC GEU/Control	11.233			0.000			0.000			0.000
JMPS INTEGRATION	0.000			0.000			0.505			2.040
Gov't In-house/Prod Supt	9.950			7.641			7.650			8.867
Special Tools and Test Equip	36.502			19.905			2.599			5.775
Containers	4.365			4.969			4.121			7.164
Telemetry	2.784			1.703			1.702			1.505
Command & Launch/ST&E/Mission/SW	1.667			1.527			0.909			1.490
Total Procurement Support	66.501			35.745			17.486			26.841
Total Flyaway Cost	162.020	328	0.346	113.411	454	0.252	114.292	636	0.269	170.862
<u>Fleet Support</u>										
ILS/Support	5.483			2.366			0.853			0.762
Total Fleet Support	5.483			2.366			0.853			0.762
Weapons System Cost	167.503	328	0.353	115.777	454	0.254	115.145	636	0.270	171.624
FY 97 Congressional Plus-up	0.000			0.000			0.000			0.000
LRIP-2 Acceleration	0.000			2.300			0.000			0.000
Net P-1 Cost	167.503			118.077			115.145			171.624
Modifications	0.000			0.000			0.000			0.000
Initial Spares	0.000			0.346			0.064			0.277
Total Program Cost	167.503	328	0.361	118.423	454	0.254	115.209	636	0.270	171.901

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature
 & Popular Name:

Date: February 2000

Joint Standoff Weapons (JSOW)

Cost Elements	FY 2002			FY 2003			FY 2004			FY 2005			Complete	
	Quantity	Unit Cost	Total Cost	Costs	Total Cost									
<u>Missile Hardware</u>														
All Up Round (AUR)	762		153.315	739		156.363	663		142.678	574		117.319	1,718.262	2,675.016
Contractor (Warranty/ECO/Data)			10.715			14.214			7.260			6.184	86.350	151.656
Total Hardware	762	0.215	164.030	739	0.231	170.577	663	0.226	149.938	574	0.215	123.503	1,804.612	2,826.672
<u>Procurement Support</u>														
LC GEU/Control			0.000			0.000			0.000			0.000	0.000	11.233
JMPS INTEGRATION			2.070			0.695			0.000			0.000	0.000	5.310
Gov't In-house/Prod Supt			7.608			5.992			5.127			3.552	26.144	82.531
Special Tools and Test Equip			14.015			5.118			3.498			3.152	34.717	125.281
Containers			8.306			7.930			6.979			6.051	89.519	139.404
Telemetry			3.648			3.560			1.847			1.878	30.072	48.699
Command & Launch/ST&E/Mission/SW			0.740			0.547			0.000			0.557	3.401	10.838
Total Procurement Support			36.387			23.842			17.451			15.190	183.853	423.296
Total Flyaway Cost	762	0.263	200.417	739	0.263	194.419	663	0.252	167.389	574	0.242	138.693	1,988.465	3,249.968
<u>Fleet Support</u>														
ILS/Support			0.496			0.507			0.517			0.528	4.114	15.626
Total Fleet Support			0.496			0.507			0.517			0.528	4.114	15.626
Weapons System Cost	762	0.264	200.913	739	0.264	194.926	663	0.253	167.906	574	0.243	139.221	1,992.579	3,265.594
FY 97 Congressional Plus-up LRIP-2 Acceleration														
Net P-1 Cost	762	0.264	200.913	739	0.264	194.926	663	0.253	167.906	574	0.243	139.221	1,992.579	3,267.894
Modifications			0.000			0.000			0.000			0.000		
Initial Spares			0.202			0.000			0.000			0.000	0	0.889
Total Program Cost	762	0.264	201.115	739	0.264	194.926	663	0.253	167.906	574	0.243	139.221	1,992.579	3,268.783

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature
 & Popular Name: Joint Standoff Weapons (JSOW)/BASELINE

Date: February 2000

Cost Elements	Prior Years	FY 1999	Quantity	Total Cost	FY 2000	Quantity	Total Cost	FY 2001	Quantity	Total Cost
	Total Cost	Quantity	Unit Cost		Quantity	Unit Cost		Quantity	Unit Cost	
<u>Missile Hardware</u>										
All Up Round (AUR)	93.218	328		70.852	454		88.646	486		81.564
Contractor (Warranty/ECO/Data)	2.301			6.814			8.160			9.008
Total Hardware	95.519	328	0.237	77.666	454	0.213	96.806	486	0.186	90.572
<u>Procurement Support</u>										
LC GEU/Control	11.233			0.000			0.000			0.000
JMPS INTEGRATION	0.000			0.000			0.505			2.040
Gov't In-house/Prod Supt	9.95			7.641			7.350			8.717
Special Tools and Test Equip	32.602			19.905			2.599			3.086
Containers	4.365			4.969			4.121			5.448
Telemetry	2.784			1.703			1.702			1.505
Command & Launch/ST&E/Mission/SW	1.667			1.527			0.909			1.490
Total Procurement Support	62.601			35.745			17.186			22.286
Total Flyaway Cost	158.120	328	0.346	113.411	454	0.251	113.992	486	0.232	112.858
<u>Fleet Support</u>										
ILS/Support	5.483			2.366			0.853			0.762
Total Fleet Support	5.483			2.366			0.853			0.762
Weapons System Cost	163.603	328	0.353	115.777	454	0.253	114.845	486	0.234	113.620
FY 97 Congressional Plus-up	0.000			0.000			0.000			0.000
LRIP-2 Acceleration	0.000			2.300			0.000			0.000
Net P-1 Cost	163.603			118.077			114.845			113.620
Modifications	0.000			0.000			0.000			0.000
Initial Spares	0.000			0.346			0.064			0.277
Total Program Cost	163.603	328	0.361	118.423	454	0.253	114.909	486	0.234	113.897

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature & Popular Name:

Joint Standoff Weapons (JSOW)/Baseline

Date: February 2000

Cost Elements	FY 2002			FY 2003			FY 2004			FY 2005			To Complete Costs	Total Cost
	Quantity	Unit Cost	Total Cost											
<u>Missile Hardware</u>														
All Up Round (AUR)	597		95.668	559		94.155	453		73.425	428		69.819	871.506	1,538.853
Contractor (Warranty/ECO/Data)			6.796			9.875			5.157			4.319	49.206	101.636
Total Hardware	597	0.172	102.464	559	0.186	104.030	453	0.173	78.582	428	0.173	74.138	920.712	1,640.489
<u>Procurement Support</u>														
LC GEU/Control			0.000			0.000			0.000			0.000	0.000	11.233
JMPS INTEGRATION			2.070			0.695			0.000			0.000	0.000	5.310
Gov't In-house/Prod Supt			7.108			5.742			5.127			3.552	26.144	81.331
Special Tools and Test Equip			4.202			2.527			0.988			1.858	18.112	85.879
Containers			6.473			5.980			4.752			4.503	55.837	96.448
Telemetry			3.648			1.754			0.910			0.925	16.125	31.056
Command & Launch/ST&E/Mission/SW			0.740			0.547			0.000			0.557	2.241	9.678
Total Procurement Support			24.241			17.245			11.777			11.395	118.459	320.935
Total Flyaway Cost	597	0.212	126.705	559	0.217	121.275	453	0.199	90.359	428	0.200	85.533	1,039.171	1,961.424
<u>Fleet Support</u>														
ILS/Support			0.496			0.310			0.316			0.322	2.823	13.731
Total Fleet Support			0.496			0.310			0.316			0.322	2.823	13.731
Weapon System Cost	597	0.213	127.201	559	0.218	121.585	453	0.200	90.675	428	0.201	85.855	1,041.994	1,975.155
LRIP-2 Acceleration														
Modifications			0.000			0.000			0.000			0.000	0.000	0.000
Initial Spares			0.202			0.000			0.000			0.000	0.000	0.889
Total Program Cost	597	0.213	127.403	559	0.218	121.585	453	0.200	90.675	428	0.201	85.855	1,041.994	1,978.344

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature
 & Popular Name: Joint Standoff Weapons (JSOW)/BLU-108

Date: February 2000

Cost Elements	Prior Years	FY 1999	Quantity	Total Cost	FY 2000	Quantity	Total Cost	FY 2001	Quantity	Total Cost
	Total Cost	Quantity	Unit Cost		Quantity	Unit Cost		Quantity	Unit Cost	
<u>Missile Hardware</u>										
All Up Round (AUR)	0.000	00		0.000	00		0.000	150		52.799
Contractor (Warranty/ECO/Data)	0.000			0.000			0.000			0.650
Total Hardware	0.000	00	0.000	0.000	00	0.000	0.000	150	0.356	53.449
<u>Procurement Support</u>										
LC GEU/Control	0.000			0.000			0.000			0.000
JMPS INTEGRATION	0.000			0.000			0.000			0.000
Gov't In-house/Prod Supt	0.000			0.000			0.300			0.150
Special Tools and Test Equip	3.900			0.000			0.000			0.596
Containers	0.000			0.000			0.000			1.716
Telemetry	0.000			0.000			0.000			0.000
Command & Launch/ST&E/Mission/SW	0.000			0.000			0.000			0.000
Total Procurement Support	3.900			0.000			0.300			2.462
Total Flyaway Cost	3.900	00	0.000	0.000	00	0.000	0.300	150	0.373	55.911
<u>Fleet Support</u>										
ILS/Support	0.000			0.000			0.000			0.000
Total Fleet Support	0.000			0.000			0.000			0.000
Weapons System Cost	3.900	00	0.000	0.000	00	0.000	0.300	150	0.373	55.911
FY 97 Congressional Plus-up	0.000			0.000			0.000			0.000
LRIP-2 Acceleration	0.000			0.000			0.000			0.000
Net P-1 Cost	3.900			0.000			0.300			55.911
Modifications	0.000			0.000			0.000			0.000
Initial Spares	0.000			0.000			0.000			0.000
Total Program Cost	3.900	00	0.000	0.000	00	0.000	0.300	150	0.373	55.911

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature & Popular Name:

Joint Standoff Weapons (JSOW)/BLU-108

Date: February 2000

Cost Elements	FY 2002			FY 2003			FY 2004			FY 2005			To Complete Costs	Total Cost
	Quantity	Unit Cost	Total Cost											
<u>Missile Hardware</u>														
All Up Round (AUR)	150		51.626	150		50.490	150		48.892	76		24.717	155.738	384.262
Contractor (Warranty/ECO/Data)			0.634			0.624			0.597			0.302	1.833	4.640
Total Hardware	150	0.348	52.260	150	0.341	51.114	150	0.330	49.489	76	0.329	25.019	157.571	388.902
<u>Procurement Support</u>														
LC GEU/Control			0.000			0.000			0.000			0.000	0.000	0.000
JMPS INTEGRATION			0.000			0.000			0.000			0.000	0.000	0.000
Gov't In-house/Prod Supt			0.000			0.000			0.000			0.000	0.000	0.450
Special Tools and Test Equip			0.632			0.502			0.287			0.295	0.642	6.854
Containers			1.670			1.629			1.598			0.812	5.289	12.714
Telemetry			0.000			1.806			0.937			0.953	3.685	7.381
Command & Launch/ST&E/Mission/SW			0.000			0.000			0.000			0.000	0.000	0.000
Total Procurement Support			2.302			3.937			2.822			2.060	9.616	27.399
Total Flyaway Cost	150	0.364	54.562	150	0.367	55.051	150	0.349	52.311	76	0.356	27.079	167.187	416.301
<u>Fleet Support</u>														
ILS/Support			0.000			0.197			0.122			0.119	0.235	0.673
Total Fleet Support			0.000			0.197			0.122			0.119	0.235	0.673
Weapon System Cost	150	0.364	54.562	150	0.368	55.248	150	0.350	52.433	76	0.358	27.198	167.422	416.974
LRIP-2 Acceleration														
Modifications			0.000			0.000			0.000			0.000	0.000	0.000
Initial Spares			0.000			0.000			0.000			0.000	0.000	0.000
Total Program Cost	150	0.364	54.562	150	0.368	55.248	150	0.350	52.433	76	0.358	27.198	167.422	416.974

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature
 & Popular Name: Joint Standoff Weapons (JSOW)/UNITARY

Date: February 2000

Cost Elements	Prior Years	FY 1999	Quantity	Total Cost	FY 2000	Quantity	Total Cost	FY 2001	Quantity	Total Cost
	Total Cost	Quantity	Unit Cost		Quantity	Unit Cost		Quantity	Unit Cost	
<u>Missile Hardware</u>										
All Up Round (AUR)	0.000	00		0.000	00		0.000	00		0.000
Contractor (Warranty/ECO/Data)	0.000			0.000			0.000			0.000
Total Hardware	0.000	00	0.000	0.000	00	0.000	0.000	00	0.000	0.000
<u>Procurement Support</u>										
LC GEU/Control	0.000			0.000			0.000			0.000
JMPS INTEGRATION	0.000			0.000			0.000			0.000
Gov't In-house/Prod Supt	0.000			0.000			0.000			0.000
Special Tools and Test Equip	0.000			0.000			0.000			2.093
Containers	0.000			0.000			0.000			0.000
Telemetry	0.000			0.000			0.000			0.000
Command & Launch/ST&E/Mission/SW	0.000			0.000			0.000			0.000
Total Procurement Support	0.000			0.000			0.000			2.093
Total Flyaway Cost	0.000	00	0.000	0.000	00	0.000	0.000	00	0.000	2.093
<u>Fleet Support</u>										
ILS/Support	0.000			0.000			0.000			0.000
Total Fleet Support	0.000			0.000			0.000			0.000
Weapons System Cost	0.000	00	0.000	0.000	00	0.000	0.000	00	0.000	2.093
FY 97 Congressional Plus-up	0.000			0.000			0.000			0.000
LRIP-2 Acceleration	0.000			0.000			0.000			0.000
Net P-1 Cost	0.000			0.000			0.000			2.093
Modifications	0.000			0.000			0.000			0.000
Initial Spares	0.000			0.000			0.000			0.000
Total Program Cost	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	2.093

**WEAPONS PROCUREMENT, NAVY
 FY 2001 PRESIDENT'S BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)**

Missile Nomenclature & Popular Name:

Joint Standoff Weapons (JSOW)/UNITARY

Date: February 2000

Cost Elements	FY 2002			FY 2003			FY 2004			FY 2005			To Complete Costs	Total Cost
	Quantity	Unit Cost	Total Cost											
<u>Missile Hardware</u>														
All Up Round (AUR)	15		6.021	30		11.718	60		20.361	70		22.783	691.018	751.901
Contractor (Warranty/ECO/Data)			3.285			3.715			1.506			1.563	35.311	45.380
Total Hardware	15	0.620	9.306	30	0.514	15.433	60	0.364	21.867	70	0.348	24.346	726.329	797.281
<u>Procurement Support</u>														
LC GEU/Control			0.000			0.000			0.000			0.000	0.000	0.000
JMPS INTEGRATION			0.000			0.000			0.000			0.000	0.000	0.000
Gov't In-house/Prod Supt			0.500			0.250			0.000			0.000	0.000	0.750
Special Tools and Test Equip			9.181			2.089			2.223			0.999	15.963	32.548
Containers			0.163			0.321			0.629			0.736	28.393	30.242
Telemetry			0.000			0.000			0.000			0.000	10.262	10.262
Command & Launch/ST&E/Mission/SW			0.000			0.000			0.000			0.000	1.160	1.160
Total Procurement Support			9.844			2.660			2.852			1.735	55.778	74.962
Total Flyaway Cost	15	1.277	19.150	30	0.603	18.093	60	0.412	24.719	70	0.373	26.081	782.107	872.243
<u>Fleet Support</u>														
ILS/Support			0.000			0.000			0.079			0.087	1.056	1.222
Total Fleet Support			0.000			0.000			0.079			0.087	1.056	1.222
Weapon System Cost	15	1.277	19.150	30	0.603	18.093	60	0.413	24.798	70	0.374	26.168	783.163	873.465
LRIP-2 Acceleration														
Modifications			0.000			0.000			0.000			0.000	0.000	0.000
Initial Spares			0.000			0.000			0.000			0.000	0.000	0.000
Total Program Cost	15	1.277	19.150	30	0.603	18.093	60	0.413	24.798	70	0.374	26.168	783.163	873.465

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System	DATE: February 2000
---	---------------	----------------------------

B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy B.A. 2-Other Missiles	C. P-1 ITEM NOMENCLATURE Joint Standoff Weapon	SUBHEAD Y2JS
---	---	-------------------------------

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)**	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<u>LRIP/Missile Hardware</u> FY-98	135	390	NAVAIR	May 97	SS/FPIF	RAYTHEON SYSTEMS (Tucson, AZ)	Dec 97	Mar 99	YES	N/A
FRP - Baseline <u>Missile H/W</u> FY-99	328	237	NAVAIR	Aug 98	SS/FFP	RAYTHEON SYSTEMS (Tucson, AZ)	Dec 98	Mar 00	YES	N/A
FRP - Baseline/LRIP BLU-108 <u>Missile H/W</u> FY-00	454	213	NAVAIR	Aug 99	SS/FFP	RAYTHEON SYSTEMS (Tucson, AZ)	Dec 99	Mar 01	YES	N/A
FY-01 Baseline	486	186	NAVAIR	Aug 00	SS/FFP	RAYTHEON SYSTEMS (Tucson, AZ)	Dec 00	Mar 02	YES	N/A
FY-01 BLU-108	150	356	NAVAIR	Aug 00	SS/FFP	RAYTHEON SYSTEMS (Tucson, AZ)	Dec 00	Mar 02	YES	N/A

D. REMARKS

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2000	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA2-Other Missiles							P-1 ITEM NOMENCLATURE SLAM-ER (J2SL) (PEO-CU) (BLI: 223100)					
Program Element for Code B Items: N/A							Other Related Program Elements 0604603N					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY	*		*	**102	**20	30	30	30	30	30	271	421
COST (\$M)	*		*	\$61.6	\$24.7	\$27.9	\$26.2	\$25.7	\$26.3	\$26.9	\$266.9	\$486.2
<p>* In FY 1998 and prior SLAM-ER is budgeted under Weapons Procurement, Navy (WPN), Budget Activity 2, Budget Line Item 232600 (Harpoon Mods). Under Budget Line Item 232600, 60 SLAMs were modified and at a total cost of \$20.7 million.</p> <p>**\$24.3M of FY99 funding (48 missiles) will execute on the FY00 contract.</p> <p>** FY00 Quantity also includes Kosovo supplemental funds to buy 12 replacements.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: AGM-84E TYPE MODIFICATION: _____ MODIFICATION TITLE: SLAM EXPANDED RESPONSE (ER)

DESCRIPTION/JUSTIFICATION:
 Converts SLAM to SLAM ER configuration, increasing range, accuracy, lethality, and enhances inter-service compatibility.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: PRODUCTION

FINANCIAL PLAN (IN MILLIONS)	FY 1997 & Prior		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
RDT&E					6.2		1.6		2.6		3.0		4.4		4.5		4.6						26.9
INSTALLATION KITS (1) (2) (3) (4) (5) **					102	52.9	20	10.6	30	19.7	30	20.0	30	20.1	30	20.5	30	21.1	271	213.5		543	378.3
INSTALLATION KITS NONRECURRING EQUIPMENT						0.519		0.530		0.658		0.665		0.669		0.685		0.702		0.788			
EQUIPMENT NONRECURRING						0.0		2.0		2.0		0.0		0.0		0.0		0.0		0.0			4.0
ENGINEERING CHANGE ORDERS						0.4		1.7		0.8		0.9		0.3		0.3		0.3		2.7			7.3
DATA						0.5		0.6		0.0		0.0		0.0		0.0		0.0					1.1
TRAINING EQUIPMENT (Exercise Sections)					7	1.0	8	1.2	6	0.9	6	0.9	5	0.8	5	0.8	5	0.8	19	3.1		61	9.3
SUPPORT EQUIPMENT (Containers)					102	0.5	20	0.7	30	0.3	30	0.3	30	0.3	30	0.3	30	0.3	271	3.3		543	6.1
OTHER (Field Activity Support)						4.3		5.3		4.1		4.2		4.3		4.4		4.4		44.4			75.4
INTERIM CONTRACTOR SUPPORT						0.2		0.0		0.0		0.0		0.0		0.0		0.0		0.0			0.2
INSTALL COST																							0.0
ATA RETROFIT					61	1.8	64	2.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0		125	4.4
TOTAL PROCUREMENT	*	*	*	*	102	61.6	20	24.7	30	27.9	30	26.2	30	25.7	30	26.3	30	26.9	271	266.9		543	486.2

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

- Note(s):
- (1) Kit consists of GFE SLAM AUR, and GFE components.
 - (2) Installations cost are included in the Installation Kits line since kit costs and installation are non-severable.
 - (3) Estimates cost for installation kits/installation of Hardware is effected by concurrent FMS production (Harpoon). FMS assumptions include 100 units in FY 99-TC.
 - (4) Block II HARPOON provides common engineering and guidance hardware with SLAM ER starting in FY00.
 - (5) FY00 Qty includes Kosovo supplemental funds to buy 12 replacements.

* In FY 1998 and prior SLAM-ER is budgeted under Weapons Procurement, Navy (WPN), Budget Activity 2, Budget Line Item 232600 (Harpoon Mods). Under Budget Line Item 232600, 60 SLAMs were modified and 10 Exercise Sections were procured in FY 1997 at a total cost of \$40.1 million and 22 SLAMs were modified in FY 1998 at a total cost of \$20.7 million.

**\$24.3M of FY99 funding was provided to obligate in FY00. This funding was derived from an asset within the FY99 Emergency Supplemental for Tomahawk.

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: AGM-84E MODIFICATION TITLE: SLAM EXPANDED RESPONSE (ER)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: 7 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 1998: *

FY 1999: Aug-99

FY 2000: May-00

FY 2001: May-01

DELIVERY DATE: FY 1998: *

FY 1999: Jul-00

FY 2000: May-01

FY 2001: May-02

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																								
FY 1997 EQUIPMENT																								
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
FY 2004 EQUIPMENT																								
FY 2005 EQUIPMENT																								
TO COMPLETE																								

INSTALLATION SCHEDULE:

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	54	0	0	68	0	0	0	30	0	0	0	30	0	0	0	30	0	0	0	30	0	0	0	30	0	271	543
Out	0	0	0	0	0	0	0	0	18	18	18	17	17	17	17	8	8	7	7	8	8	7	7	8	8	7	7	8	8	315	543

* In FY 1998 and prior SLAM-ER is budgeted t

10 Exercise Sections were procured in FY 1997 at a total cost of \$40.1 million and 22 SLAMs were modified in FY 1998 at a total cost of \$20.7 million.

1/ Input schedule reflects delivery of fleet baseline SLAM missiles to the contractor's site for modification.

P-3A

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2000	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/ BA-2							P-1 ITEM NOMENCLATURE STANDARD MISSILE (SM-2 MR/ER) A2FE BLI:223400					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY	10,182	A		114	86	86	108	146	180	207	1,484	12,593
COST (\$M)	\$6,441.1	A		\$212.7	\$198.1	\$170.4	\$212.6	\$272.6	\$304.6	\$343.7	\$2,011.9	\$10,167.7
Initial Spares (\$M)	\$150.1	A		\$8.2	\$13.2	\$15.1	\$16.5	\$17.0	\$16.4	\$15.6	\$61.3	\$313.4
<p>(U) <u>PROGRAM OVERVIEW:</u></p> <p>The STANDARD Missile SM-2 Medium Range (MR) and Extended Range (ER) are solid-propellant, tail-controlled surface-to-air missiles which are the main air defense battery for AEGIS/NTU guided missile cruisers and destroyers. The SM-2 Block IIIB and earlier variants are currently deployed.</p> <p>(U) Continually being upgraded to preserve battle group effectiveness against evolving cruise missile and Tactical Ballistic Missile (TBM) threats, SM-2 has three improvements which will be procured for AEGIS cruisers and destroyers equipped with the MK41 Vertical Launch System (VLS). The SM-2 Block IIIB configuration improves the Block IIIA baseline through the Missile Homing Improvement Program (MHIP) to address a specific type of deployed threat. SM-2 Block IV, with a new separable booster, evolves the Block IIIA baseline missile to provide greater kinematic capability and dramatic increases in performance. The SM-2 Block IVA is a product improvement to the Block IV missile to provide a near term capability against TBM's with an objective of maintaining the current Block IV AAW capability.</p>												

Exhibit MYP-2 Total Program Funding Plan (\$ in Thousands)				Date February 2000		
Appropriation (Treasury) Code /CC/BA/BSA/Item Control No Weapon Procurement, Navy/BA-2				P-1 Line Item Nomenclature SM2 MR/ER A2FE BLI: 223400		
	2000	2001	2002	2003	2004	
	Budget Year 1	Budget Year 2	Budget Year 2+1	Budget Year 2+2	Budget Year 2+3	TOTAL
Annual Procurement						
Proc Qty (P-1)*	86	86	108	146	178	604
Gross Cost**	\$257,793	\$241,424	\$281,213	\$356,641	\$387,164	\$1,524,234
Less PY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Plus CY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Net Proc (= P-1)	\$257,793	\$241,424	\$281,213	\$356,641	\$387,164	\$1,524,234
Multiyear Proc						
Proc Qty (P-1)*	86	86	108	146	178	604
Gross Cost**	\$253,947	\$237,705	\$275,406	\$348,795	\$378,270	\$1,494,123
Less PY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Plus CY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Net Proc (=P-1)	\$253,947	\$237,705	\$275,406	\$348,795	\$378,270	\$1,494,123
Multiyear Savings (\$)						
	\$3,846	\$3,719	\$5,807	\$7,846	\$8,894	\$30,111
Multiyear Savings (%)						
	1.5%	1.5%	2.1%	2.2%	2.3%	2.0%
OUTLAYS						
Annual	\$257,793	\$241,424	\$281,213	\$356,641	\$387,164	\$1,524,234
Multiyear	\$253,947	\$237,705	\$275,406	\$348,795	\$378,270	\$1,494,123
Savings	\$3,846	\$3,719	\$5,807	\$7,846	\$8,894	\$30,111
Remarks						
*Includes both BLK IIIB and BLK IVA AUR procurement						
**Gross cost includes weapon system cost, modifications, and initial spares.						

Exhibit MYP-2, Total Program Funding Plan

Exhibit MYP-3 Contract Funding Plan (\$ in Thousands)				Date		
				February 2000		
Appropriation (Treasury) Code /CC/BA/BSA/Item Control No				P-1 Line Item Nomenclature		
Weapon Procurement, Navy				SM-2 BLK IIIB G,C & A		
	2000	2001	2002	2003	2004	
	Budget Year 1	Budget Year 2	Budget Year 2+1	Budget Year 2+2	Budget Year 2+3	TOTAL
Annual Procurement						
Proc Qty*	77	77	82	90	92	418
Gross Cost (P-1)	\$50,505	\$48,684	\$52,207	\$57,580	\$58,690	\$267,665
Less PY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Plus CY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Net Proc (= P-1)	\$50,505	\$48,684	\$52,207	\$57,580	\$58,690	\$267,665
Multiyear Proc						
Proc Qty*	77	77	82	90	92	418
Gross Cost (P-1)	\$46,970	\$45,276	\$46,986	\$50,670	\$51,060	\$240,962
Less PY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Plus CY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Net Proc (=P-1)	\$46,970	\$45,276	\$46,986	\$50,670	\$51,060	\$240,962
Multiyear Savings (\$)						
	\$3,535	\$3,408	\$5,221	\$6,910	\$7,630	\$26,703
Multiyear Savings (%)						
	7.0%	7.0%	10.0%	12.0%	13.0%	10.0%
OUTLAYS						
Annual	\$50,505	\$48,684	\$52,207	\$57,580	\$58,690	\$267,665
Multiyear	\$46,970	\$45,276	\$46,986	\$50,670	\$51,060	\$240,962
Savings	\$3,535	\$3,408	\$5,221	\$6,910	\$7,630	\$26,703
Remarks						
*Quantities include production and initial spares						

Exhibit MYP-3¹, Contract Funding Plan

Exhibit MYP-3 Contract Funding Plan (\$ in Thousands)				Date		
				February 2000		
Appropriation (Treasury) Code /CC/BA/BSA/Item Control No				P-1 Line Item Nomenclature		
Weapon Procurement, NavyBA-2				FE009 MK104 DTRM		
	2000	2001	2002	2003	2004	
	Budget Year 1	Budget Year 2	Budget Year 2+1	Budget Year 2+2	Budget Year 2+3	TOTAL
Annual Procurement						
Proc Qty*	96	96	120	156	188	656
Gross Cost (P-1)	\$4,439	\$4,439	\$5,867	\$7,800	\$9,724	\$32,268
Less PY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Plus CY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Net Proc (= P-1)	\$4,439	\$4,439	\$5,867	\$7,800	\$9,724	\$32,268
Multiyear Proc						
Proc Qty*	96	96	120	156	188	656
Gross Cost (P-1)	\$4,128	\$4,128	\$5,280	\$6,864	\$8,460	\$28,860
Less PY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Plus CY Adv Proc	\$0	\$0	\$0	\$0	\$0	\$0
Net Proc (=P-1)	\$4,128	\$4,128	\$5,280	\$6,864	\$8,460	\$28,860
Multiyear Savings (\$)	\$311	\$311	\$587	\$936	\$1,264	\$3,408
Multiyear Savings (%)	7.0%	7.0%	10.0%	12.0%	13.0%	10.6%
OUTLAYS						
Annual	\$4,439	\$4,439	\$5,867	\$7,800	\$9,724	\$32,268
Multiyear	\$4,128	\$4,128	\$5,280	\$6,864	\$8,460	\$28,860
Savings	\$311	\$311	\$587	\$936	\$1,264	\$3,408
Remarks						
*Quantities include production and initial spares						

Exhibit MYP-3², Contract Funding Plan

Exhibit MYP-4 Present Value Analysis					Date	
Dollars in Thousands					February 2000	
Appropriation					P-1 Line Item Nomenclature	
Weapon Procurement, Navy					SM-2 BLK IIIB G, C & A	
	2000	2001	2002	2003	2004	TOTAL
	Budget Year 1	Budget Year 2	Budget Year 2+1	Budget Year 2+2	Budget Year 2+3	
Annual Proposal						
Then Year Cost*	\$50,505	\$48,684	\$52,207	\$57,580	\$58,690	\$267,665
Constant Year Cost	\$49,216	\$46,690	\$49,201	\$53,245	\$53,209	\$251,561
Present Value**	\$47,922	\$44,267	\$45,421	\$47,863	\$46,573	\$232,047
Multiyear Proposal						
Then Year Cost	\$46,970	\$45,276	\$46,986	\$50,670	\$51,060	\$240,962
Constant Year Cost	\$45,771	\$43,422	\$44,280	\$46,856	\$46,292	\$226,621
Present Value	\$44,567	\$41,169	\$40,879	\$42,119	\$40,518	\$209,253
Difference						
Then Year Cost	\$3,535	\$3,408	\$5,221	\$6,910	\$7,630	\$26,703
Constant Year Cost	\$3,445	\$3,268	\$4,920	\$6,389	\$6,917	\$24,940
Present Value	\$3,355	\$3,099	\$4,542	\$5,744	\$6,054	\$22,793
Multiyear Savings (\$)	\$3,535	\$3,408	\$5,221	\$6,910	\$7,630	\$26,703
Multiyear Savings (%)	7.0%	7.0%	10.0%	12.0%	13.0%	10.0%
Remarks						
*Using 1999 as the Budget Year						
**Using DoD Instruction 7041.3 as a guide and discount rates from OMB Circular A-94, 1999 rates.						

Exhibit MYP-4¹, Present Value Analysis

Exhibit MYP-4 Present Value Analysis					Date		February 2000
Dollars in Thousands							
Appropriation					P-1 Line Item Nomenclature		
Weapon Procurement, Navy					FE009 MK104 DTRM		
	2000	2001	2002	2003	2004	TOTAL	
	Budget Year 1	Budget Year 2	Budget Year 2+1	Budget Year 2+2	Budget Year 2+3		
Annual Proposal							
Then Year Cost*	\$4,439	\$4,439	\$5,867	\$7,800	\$9,724	\$32,268	
Constant Year Cost**	\$4,325	\$4,257	\$5,529	\$7,213	\$8,816	\$30,140	
Present Value***	\$4,212	\$4,036	\$5,104	\$6,484	\$7,717	\$27,552	
Multiyear Proposal							
Then Year Cost	\$4,128	\$4,128	\$5,280	\$6,864	\$8,460	\$28,860	
Constant Year Cost**	\$4,023	\$3,959	\$4,976	\$6,347	\$7,670	\$26,975	
Present Value***	\$3,917	\$3,754	\$4,594	\$5,706	\$6,713	\$24,683	
Difference							
Then Year Cost*	\$311	\$311	\$587	\$936	\$1,264	\$3,408	
Constant Year Cost**	\$303	\$298	\$553	\$866	\$1,146	\$3,165	
Present Value***	\$295	\$283	\$510	\$778	\$1,003	\$2,869	
Multiyear Savings (\$)	\$311	\$311	\$587	\$936	\$1,264	\$3,408	
Multiyear Savings (%)	7.0%	7.0%	10.0%	12.0%	13.0%	10.6%	
Remarks							
*Using 2000 as the Budget Year							
**Inflation indicies from FMB3 Budget Guidance Memorandum BG 99-3B - WPN Appropriation (OSD Inflation)							
***Using DoD Instruction 7041.3 as a guide and (Real) discount rates from OMB Circular A-94, 1999 rates. (2000 discount rates not available as of preparation of MYP exhibit)							

Exhibit MYP-4², Present Value Analysis

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD STANDARD MISSILE (SM-2 MR/ER)/A2FE										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 1998			FY 1999			FY 2000			FY 2001		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
FE001	Missile Hardware GC&A/MK 72 AEGIS BLK IIIB AEGIS BLK IV AEGIS BLK IVA						71	657	46,644	75	610	45,750	75	588	44,100
							43	1,097	47,182				11	3,332	36,652
													11	4,319	47,509
FE009	MK104 DTRM						114	54	6,209	86	43	3,698	86	43	3,698
FE003	MK 54 S&A Device						114	9	1,056	86	8	688	86	8	688
FE005	MK 45 TDD MOD 9/10						114	157	17,846	86	104	8,944	86	104	8,944
FE006	MK 125 Warhead						114	21	2,391	86	17	1,462	86	16	1,376
	Procurement Support														
FE830	Contract Engineering								13,875			16,023			15,896
FE830	Government In-House Engineering								4,755			6,487			5,190
FE840	Quality Assurance								2,298			4,529			3,107
FE954	Documentaiton								1,628			4,130			1,541
FE955	Production Proof								4,441			6,941			5,055
FE860	Eval Svc & Mat'l								15,696			15,554			12,259
FE957	Containers								1,080			2,610			565
FE950	Tools and Test Equipment								17,921			12,602			4,466
FE850	Comp Improv								5,214			8,098			5,827
FE970	Install and Checkout								16,928			10,333			3,555
FE971	Spec Hdl Equip								1,885			2,185			554
FE972	Training Material Exp and Non Exp								3,142			5,991			3,990
FE973	Fleet Documentation								1,302			2,769			1,003
FE980	ILS								1,212			2,689			1,042
	Fleet Support					13,044			24,417			20,167			10,369
	Modifications								44,847			41,772			50,690
	Initial Spares								8,176			13,153			15,128
	*The total line does not include Fleet support, Modifications, and initial spares. **BLK IVA unit cost increase in FY 01 includes \$15M for vendor requalification														
							0								
									212,705			198,135			170,365

DD FORM 2446, JUN 86

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO.

PAGE NO.

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Weapons Procurement, Navy/BA-2					STANDARD MISSILE				A2FE	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
UNIQUE SM-2 MR/ER HARDWARE FE001 GC&A/MK72 BOOSTER										*
FY99 BLKIIIB AEGIS	71	657	NAVSEA		SS/FFP/AF	RAYCO-TUCSON,AZ	04/99	03/01	YES	
FY99 BLK IV AEGIS	43	1097	NAVSEA		SS/FFP/AF	RAYCO-TUCSON,AZ	04/99	03/01	YES	
FY00 BLK IIIB AEGIS	75	610	NAVSEA		SS/FFP/AF	RAYCO-TUCSON,AZ	01/00	01/02	YES	
FY00 BLK IVA AEGIS	11	3332	NAVSEA		SS/CPIF/AF	RAYCO-TUCSON,AZ	06/00	03/02	YES	
FY01 BLK IIIB AEGIS	75	588	NAVSEA		SS/CPIF/AF	RAYCO-TUCSON,AZ	01/01	01/03	YES	
FY01 BLK IVA AEGIS	11	4319	NAVSEA		SS/CPIF/AF	RAYCO-TUCSON,AZ	03/01	03/03	YES	
COMMON HARDWARE FE009 DTRM MK104										
FY99 MOD 2/3	114	54	NAVSEA		SS/FFP/PI	ARC-Camden,AR	03/99	10/00	YES	
FY00 MOD 2/3	86	43	NAVSEA		SS/FFP/PI	ARC-Camden,AR	03/00	10/01	YES	
FY01 MOD 2/3	86	43	NAVSEA		SS/FFP/PI	ARC-Camden,AR	03/01	10/02	YES	
D. REMARKS										
* A multi-year contract award is planned for the BLK IIIB GC&A and MK 104 DTRM (FY00- FY04).										

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE				
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2					C. P-1 ITEM NOMENCLATURE STANDARD MISSILE					SUBHEAD		
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE		
FE003 SAFETY & ARMING DEVICE												
FY99 MK54	114	9	NAVSEA		SS/FFP	KAMAN- Middletown,CT	07/99	10/00	YES			
FY00 MK54	86	8	NAVSEA		SS/FFP	KAMAN- Middletown,CT	03/00	10/01	YES			
FY01 MK54	86	8	NAVSEA		SS/FFP	KAMAN- Middletown,CT	03/01	10/02	YES			
FE005 ORDNANCE MK45 TDD												
FY99 MOD 9/10	114	157	NAVSEA		SS/FFP/PI	MOTOROLA-Scottsdale<AZ	02/99	10/00	YES			
FY00 MOD 9/10	86	104	NAVSEA		SS/FFP/PI	MOTOROLA-Scottsdale<AZ	12/99	10/01	YES			
FY01 MOD 9/10	86	104	NAVSEA		SS/FFP/PI	MOTOROLA-Scottsdale<AZ	03/01	10/02	YES			
FE006 WARHEAD MK125												
FY99 MK125	114	21	NAVSEA		SS/FFP	AlliantTech-Magna,UT	04/99	10/00	YES			
FY00 MK125	86	17	NAVSEA		SS/FFP	AlliantTech-Magna,UT	04/00	10/01	YES			
FY01 MK125	86	16	NAVSEA		SS/FFP	AlliantTech-Magna,UT	04/01	10/02	YES			
D. REMARKS												

FY 2000/01 BUDGET PRODUCTION SCHEDULE, P-21						DATE February 2000																																	
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY						Weapon System						P-1 ITEM NOMENCLATURE Standard Missile/2234																											
						Production Rate			Procurement Leadtimes																														
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																									
	RMSC/TUCSON, AZ					9	100	200	-	3	24	24	27	EA																									
ITEM / MANUFACTURER						FISCAL YEAR 1998														FISCAL YEAR 1999																			
						F Y S V C Q T Y D E L B A L						1997														1998													
												CALENDAR YEAR 1998														CALENDAR YEAR 1999													
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L									
SMCO	1994		101	101	0																																		
RAYCO (FMS)	1994		43	43	0																																		
RAYCO (SM-1 FMS)	1994		20	20	0																																		
RAYCO	1994		101	101	0																																		
RAYCO (FMS)	1994		48	48	0																																		
RAYCO	1995		188	167	21																									21									
RAYCO (FMS)	1995		104	104	0																																		
RAYCO	1996		22	0	22																									22									
RAYCO	1997		127	45	82																									82									
RAYCO (FMS)	1997		42	30	12																									12									
ITEM / MANUFACTURER						FISCAL YEAR 2000														FISCAL YEAR 2001																			
						F Y S V C Q T Y D E L B A L						1999														2000													
												CALENDAR YEAR 2000														CALENDAR YEAR 2001													
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L									
RAYCO	1995		188	167	21	1	2	1	2	3	3	3	3	3																									
RAYCO (FMS)	1995		104	104	0																																		
RAYCO	1996		22	0	22		2	1	3	3	6	7																											
RAYCO	1997		127	45	82	5	1	6	14	14	16	13	13																										
RAYCO (FMS)	1997		42	30	12	4	4	4																															
RAYCO	1998		88	0	88									14	14	10	7	8	8	9	9	9																	
RAYCO (FMS)	1998		15	0	15							2	3	3	3	4																							
RAYCO	1999		114	0	114																	11	11	11	11	11	11	12	36										
RAYCO(FMS)	1999		30	0	30																	3	3	3	3	3	3	3	9										
RAYCO	2000		86	0	86																								86										
Remarks:																																							

FY 2000/01 BUDGET PRODUCTION SCHEDULE, P-21						DATE February 2000																										
APPROPRIATION/BUDGET ACTIVITY						Weapon System							P-1 ITEM NOMENCLATURE																			
OTHER PROCUREMENT, NAVY						Standard Missile/2234																										
						Production Rate			Procurement Leadtimes																							
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																		
	RMSC/TUCSON, AZ					9	100	200	-	3	24	24	27	EA																		
						FISCAL YEAR 2002							FISCAL YEAR 2003																			
ITEM / MANUFACTURER						F Y	S V C	Q T Y	D E L	B A L	2001							CALENDAR YEAR 2002							CALENDAR YEAR 2003							B A L
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L		
RAYCO	1999		114	78	36	12	12	12																								
RAYCO(FMS)	1999		30	21	9	3	3	3																								
RAYCO	2000		86	0	86				7	7	7	7	7	8	7	7	8	7	7	7												
RAYCO(FMS)	2000		30	0	30				2	2	3	3	3	3	3	3	2	2	2	2												
RAYCO	2001		86	0	86															7	7	7	7	7	8	7	7	8	21			
RAYCO(FMS)	2001		30	0	30															2	2	3	3	3	3	3	3	2	6			
RAYCO	2002		108	0	108																								108			
RAYCO(FMS)	2002		30	0	30																								30			
RAYCO	2003		146	0	146																								146			
RAYCO(FMS)	2003		30	0	30																								30			
						FISCAL YEAR 2004							FISCAL YEAR 2005																			
ITEM / MANUFACTURER						F Y	S V C	Q T Y	D E L	B A L	2003							CALENDAR YEAR 2004							CALENDAR YEAR 2005							B A L
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L		
RAYCO	2001		86	65	21	7	7	7																								
RAYCO(FMS)	2001		30	24	6	2	2	2																								
RAYCO	2002		108	0	108				9	9	9	9	9	9	9	9	9	9	9	9												
RAYCO(FMS)	2002		30	0	30				2	2	3	3	3	3	3	2	2	2	2													
RAYCO	2003		146	0	146															12	12	13	12	12	13	12	12	13	35			
RAYCO(FMS)	2003		30	0	30															2	2	3	3	3	3	3	3	2	6			
RAYCO(WPN)	2004		178	0	178																								178			
RAYCO(FMS)	2004		30	0	30																								30			
RAYCO(WPN)	2005		205	0	205																								205			
RAYCO(FMS)	2005		30	0	30																								30			
Remarks:																																

FY 2000/01 BUDGET PRODUCTION SCHEDULE, P-21						DATE		February 2000																							
APPROPRIATION/BUDGET ACTIVITY						Weapon System		P-1 ITEM NOMENCLATURE																							
OTHER PROCUREMENT, NAVY								Standard Missile/2234																							
						Production Rate			Procurement Leadtimes																						
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																	
	RMSC/TUCSON, AZ					9	100	200	-	3	24	24	27	EA																	
						FISCAL YEAR 2006						FISCAL YEAR 2007																			
ITEM / MANUFACTURER						F Y	S V C	Q T Y	D E L	B A L	CALENDAR YEAR 2006										CALENDAR YEAR 2007										B A L
						2005			2006										2007												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
RAYCO						2003		146	111	35	12	12	11																		
RAYCO(FMS)						2003		30	24	6	2	2	2																		
RAYCO(WPN)						2004		178	0	178				15	15	15	15	15	15	15	15	14	14								
RAYCO(FMS)						2004		30	0	30				2	2	3	3	3	3	2	2	2									
RAYCO(WPN)						2005		205	0	205											17	17	17	17	17	17	17	17	17	17	52
RAYCO(FMS)						2005		30	0	30											2	2	3	3	3	3	3	3	2	6	
						FISCAL YEAR 2008						FISCAL YEAR 2009																			
ITEM / MANUFACTURER						F Y	S V C	Q T Y	D E L	B A L	CALENDAR YEAR 2008										CALENDAR YEAR 2009										B A L
						2007			2008										2009												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
RAYCO(WPN)						2005		205	153	52	18	17	17																		
RAYCO(FMS)						2005		30	24	6	2	2	2																		

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-20, Requirements Study		APPROPRIATION/BUDGET ACTIVITY WPN #2 OTHER MISSILES					DATE: February 2000		
P-1 ITEM NOMENCLATURE STANDARD Missile, SM-2, MR, AEGIS VLS, BLOCK IV		Admin Leadtime (after Oct1): 3 months			Prod Leadtime : 24 months				
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	
Buy Summary	20	43							
Unit Cost (\$K)	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	
Total Cost (\$K)	\$49.3	\$56.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
Asset Dynamics									
Beginning Asset Position		0	4	96	137	134	122	110	
Deliveries from all prior year funding		0	95	15					
Deliveries from FY 1999 funding				34	9				
Deliveries from FY 2000 funding									
Deliveries from FY 2001 funding									
Deliveries from subsequent years' funding									
Other Gains		7							
Combat Losses/Usage									
Training Losses/Usage		-3	-3	-8	-12	-12	-12	-12	
Test Losses/Usage									
Other Losses/Usage									
Disposals/Retirements/Attritions/etc.									
End of Year Asset Position	0	4	96	137	134	122	110	98	
Inventory Objective or Current Authorized Allowance	586	665	681	735	726	758	781	802	
Inventory Objective FY01 FDP	Actual Training Expenditures	Other than Training Usage		Disposals (Vehicles/Other)		Vehicles Eligible for FY 2000 Replacement:		Aircraft: TOAI:	
Assets Rqd For Combat Loads: 500	FY 1998 thru XXXXX:	FY 1998 thru XXXXX:		FY 1998 thru XXXXX:		Vehicles Eligible for FY 2001 Replacement:		PAA: TAI	
WRM Rqmt: 258	FY 1997:	FY 1997:		FY 1997:		Vehicle Augment:		Attrition Res:	
Pipeline: 16	FY 1996:	FY 1996:		FY 1996:				BAI	
Other: 22	FY 1995:	FY 1995:		FY 1995:				Inactive Inv:	
TOTAL: 796								Storage:	
Remarks: QUANTITIES INCLUDE BOTH USN AND BMDO									

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-20, Requirements Study		APPROPRIATION/BUDGET ACTIVITY WPN #2 OTHER MISSILES					DATE: February 2000		
P-1 ITEM NOMENCLATURE STANDARD Missile SM-2, MR, AEGIS VLS, BLOCK IIIB		Admin Leadtime (after Oct1): 3 MONTHS			Prod Leadtime : 24 MONTHS				
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	
Buy Summary	68	71	75	75	80	88	90	90	
Unit Cost (\$K)	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	
Total Cost (\$K)	\$62.6	\$62.3	\$58.9	\$57.6	\$60.9	\$64.0	\$64.9	\$64.4	
Asset Dynamics									
Beginning Asset Position		6	141	343	469	605	762	932	
Deliveries from all prior year funding		55	76	17					
Deliveries from FY 1999 funding				53	18				
Deliveries from FY 2000 funding					56	19			
Deliveries from FY 2001 funding						56	19		
Deliveries from subsequent years' funding							60	86	
Other Gains	6	93	131	68	74	94	103	130	
Combat Losses/Usage									
Training Losses/Usage		-13	-5	-12	-12	-12	-12	-12	
Test Losses/Usage									
Other Losses/Usage									
Disposals/Retirements/Attritions/etc.									
End of Year Asset Position	6	141	343	469	605	762	932	1136	
Inventory Objective or Current Authorized Allowance	2628	2700	2748	2819	2742	2813	2851	2806	
Inventory Objective FY01 FDP	Actual Training Expenditures	Other than Training Usage	Disposals (Vehicles/Other)	Vehicles Eligible for FY 2000 Replacement:	Aircraft: TOAI:				
Assets Rqd For Combat Loads: 1941	FY 1998 thru 2	FY 1998 thru XXXXX:	FY 1998 thru XXXXX:	Vehicles Eligible for FY 2001 Replacement:	PAA: TAI				
WRM Rqmt: 872	FY 1997:	FY 1997:	FY 1997:	Vehicle Augment:	Attrition Res:				
Pipeline: 59	FY 1996:	FY 1996:	FY 1996:		BAI				
Other: 81	FY 1995:	FY 1995:	FY 1995:		Inactive Inv:				
TOTAL: 2908					Storage:				
Remarks: QUANTITIES INCLUDE USN ONLY									

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-20, Requirements Study		APPROPRIATION/BUDGET ACTIVITY WPN #2 OTHER MISSILES					DATE: February 2000		
P-1 ITEM NOMENCLATURE STANDARD Missile, SM-2 MR, AEGIS VLS, BLOCK IVA		Admin Leadtime (after Oct1): 3 MONTHS			Prod Leadtime : 24 MONTHS				
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	
Buy Summary	0	0	11	11	28	58	120	158	
Unit Cost (\$K)	0.0	0.0	3.2	2.9	2.7	2.3	2.0	1.9	
Total Cost (\$K)	\$0.0	\$0.0	\$34.8	\$31.8	\$74.7	\$134.3	\$239.9	\$302.1	
Asset Dynamics									
Beginning Asset Position		0	0	0	0	2	5	23	
Deliveries from all prior year funding									
Deliveries from FY 1999 funding									
Deliveries from FY 2000 funding					9	2			
Deliveries from FY 2001 funding						9	2		
Deliveries from subsequent years' funding							21	51	
Other Gains									
Combat Losses/Usage									
Training Losses/Usage					-7	-8	-5	-5	
Test Losses/Usage									
Other Losses/Usage									
Disposals/Retirements/Attritions/etc.									
End of Year Asset Position	0	0	0	0	2	5	23	69	
Inventory Objective or Current Authorized Allowance	0	0	0	0	1436	1566	1668	1816	
Inventory Objective FY01 FDP	Actual Training Expenditures	Other than Training Usage	Disposals (Vehicles/Other)	Vehicles Eligible for FY 2000 Replacement:	Aircraft: TOAI:				
Assets Rqd For Combat Loads: 606	FY 1998 thru XXXXX:	FY 1998 thru XXXXX:	FY 1998 thru XXXXX:	Vehicles Eligible for FY 2001 Replacement:	PAA: TAI				
WRM Rqmt: 960	FY 1997:	FY 1997:	FY 1997:	Vehicle Augment:	Attrition Res:				
Pipeline: 33	FY 1996:	FY 1996:	FY 1996:		BAI				
Other: 45	FY 1995:	FY 1995:	FY 1995:		Inactive Inv:				
TOTAL: 1644					Storage:				
Remarks: QUANTITIES INCLUDE BOTH USN AND BMDO									

CLASSIFICATION:

BUDGET ITEM JUSTIFICATION SHEET										DATE:	
P-40										February 2000	
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE					
Weapons Procurement, Navy/BA-2						RIM 116A - ROLLING AIRFRAME MISSILE (RAM)					
Program Element for Code B Items: 0604755N						Other Related Program Elements					
	Prior Years	ID Code	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY		B	95	90	0	100	100	130	155	972	1,826
COST (\$M)			\$44.3	\$45.3	\$23.1	\$56.7	\$66.5	\$86.3	\$72.1	\$486.0	\$945.2
Initial Spares (\$M)			\$1.9	\$1.7	\$2.5	\$4.0	\$3.9	\$3.8	\$3.0		\$23.8
<p>ITEM DESCRIPTION/JUSTIFICATION:</p> <p>Rolling Airframe Missile (RAM) is a high fire-power, low cost, lightweight complementary self-defense system to engage anti-ship missiles. It has dual-mode passive Radio Frequency/Infrared (RF/IR) guidance and will be fired from a RAM Guided Missile Launching System (MK-49) which holds 21 RAM rounds. Approval for full rate production, Milestone III was granted on 6 May 1993 and approval for major modification (Block 1) was granted in the Milestone IV/II decision of 6 May 1994.</p> <p style="margin-left: 40px;">FY99 funds procured 95 Block 1 Missiles. FY00 funds will procure 90 Block 1 Missiles. FY01 funds will procure 95 Block 1 Retrofit Kits.</p> <p>COOPERATIVE AGREEMENTS:</p> <p>RAM is a NATO cooperative project with the Federal Republic of Germany. The RAM production MOU, approved and signed by the US and Germany (GE) on 3 August 1987, specifies production procedures for the guided Missile Round Pack and coproduction of the Guided Missile Launching System. Missile limited production contracts were awarded to US (General Dynamics/Air Defense Systems Division) and German (RAM System GmbH) sources in 1989. As a result of the reduced US missile quantities and a desire to maintain production capabilities in both countries, an arrangement between the US and German producers, for single source coproduction of the German full-rate production quantities, was approved by both governments in November 1992 and this arrangement continues for U.S. rate production. In August 1992, the acquisition of Gernerl Dynamics by Hughes Aircraft Company was approved, making Hughes Missile Systems Co. the US prime contractor. In January 1998, Raytheon acquired Hughes Missile Systems Co., making Raytheon the US prime contractor. The US & GE governments are currently negotiating the Block 1 production MOU with an expected completion date of February 2000.</p> <p style="margin-left: 40px;">Estimates include competitive sourcing savings associated with consolidation of production support contracting efforts.</p>											

P-1 SHOPPING LIST

CLASSIFICATION:

CLASSIFICATION: UNCLASSIFIED

WEAPONS PROCUREMENT, NAVY
 FY 2000/01 DEPARTMENT OF THE NAVY BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)

Missile Nomenclature & Popular Name: ROLLING AIRFRAME MISSILE (RAM)
 224200

Date: February 2000

<u>Cost Elements</u>		Prior Years	FY 1999	Quantity	Total Cost	FY 2000	Quantity	Total Cost	FY 2001	Quantity	Total Cost
		Total Cost	Quantity	Unit Cost		Quantity	Unit Cost		Quantity	Unit Cost	
<u>Missile Hardware</u>											
BLOCK 1	EF001		95	353	33,514	90	342	30,798	0	0	0
Block 1 Retrofit Kit									95	174	16,502
COMPONENT	EF850				2,659			1,311			644
PROPULSION	EF002		95	9	885	90	8	738	0	0	0
ORDNANCE PACK	EF005		95	28	2,698	90	34	3,051	0	0	0
WARHEAD	EF006		95	2	210	60	3	156	0	0	0
SAFE & ARM DEV	EF004					60	3	150	0	0	0
TELEMETER	EF010					30	37	1,116			
Total Hardware					39,966			37,320			17,146
<u>Procurement Support</u>											
CONTRACTOR EN	EF830				615			3,286			3,206
GOVT INHOUSE EN	EF830				2,327			1,261			1,206
PRODUCT ACCEPT	EF860				598			107			101
Total Procurement Support					3,540			4,654			4,513
<u>Non-recurring Proc</u>											
Tool & Test Equip	EF950				810						
Requalification	EF950										1,000
Total Flyaway Cost			95	466	44,316	90	466	41,974	95	239	22,659
<u>Fleet Support</u>											
ILS	EF974							422			408
CONTAINER	EF957					200	3	580			
CANISTER	EF007					90	25	2,286	0	0	0
Total Fleet Support								3,288			408
Weapon System Cost					44,316			45,262			23,067
Modifications											
Initial Spares					1,926			1,710			2,500
Total Program Cost					46,242			46,972			25,567

UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE February 2000		
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA2					C. P-1 ITEM NOMENCLATURE RAM MISSILE				SUBHEAD 22EF	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
EF001 GUIDANCE & CONTROL ASSEMBLY FY 1999										
BLOCK 1 MISSILE FY 2000	95	353	NAVSEA	5/98	SS/FP	RAYTHEON, TUCSON,AZ	1/99	10/00	YES	
BLOCK 1 MISSILE FY 2001	90	342.2	NAVSEA	5/99	SS/FP	RAYTHEON, TUCSON,AZ	1/00	10/01	YES	
BLOCK 1 MISSILE EF002	0									
PROPULSION ROCKET MOTOR MK112/1 ARMING & FIRING DEVICE MK298/1 FY1999	95	9	NAVSEA	7/98	OPTION	COMPETITIVE	8/99	03/01	YES	
FY2000	90	8.2	NAVSEA	7/99	OPTION	COMPETITIVE	11/99	03/02	YES	
FY2001	0									
EF005 ORDNANCE PACKAGE TARGET DETECT MK20 FY1999	95	28	NAVSEA	6/98	SS/FP	RAYTHEON, TUCSON,AZ	11/98	1/00	YES	
FY2000	90	33.9	NAVSEA	6/99	SS/FP	RAYTHEON, TUCSON,AZ	11/99	1/01	YES	
FY2001	0									
D. REMARKS										

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA2					C. P-1 ITEM NOMENCLATURE RAM MISSILE			SUBHEAD 22EF		
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
EF004 SAFE & ARMS MK 13/2 FY 2000 FY 2001	60 0	2.5	NAVAIR	7/99	C/FP	OPTION	11/99	11/00	YES	
EF006 WARHEAD WDU 17/8 FY 1999 FY 2000 FY 2001	95 60 0	2.2 2.6	NAVAIR NAVAIR	9/99 2/00	C/FP C/FP	OPTION OPTION	11/99 4/00	11/00 11/00	YES YES	
EF010 TELEMETER FY 2000	30	37.2	NAVSEA	5/99	C/FP	COMPETITIVE	1/00	7/01	YES	
EF957 CONTAINERS FY 2000	200	2.9	NAVSEA	9/99	C/FP	COMPETITIVE	6/00	4/01	YES	
EF007 CANISTERS FY 2000 FY 2001	90 0	25.4	NAVSEA	5/99	SS/FP	RAYTHEON, TUCSON, AZ	1/00	10/01	YES	
D. REMARKS										

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											February 2000	
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE					
Weapons Procurement, Navy/2 - Other Missiles							HELLFIRE AGM-114K PEO(T)					
Program Element for Code B Items:							Other Related Program Elements					
	Prior* Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY	2,931	A	200	0	220	0	0	0	0	0	0	3,351
COST (\$M)	133.7		19.8	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	173.4
Initial Spares (\$M)	0.7		0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Total (\$M)	134.4		20.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	174.3
Unit Cost (\$M)	0.046		0.100	0	0.091	0	0	0	0	0	0	0.052

The Hellfire II (AGM-114K) is a laser guided missile that can be employed from land or carrier based helicopters. The AGM-114 was developed by the Army as executive service to be used as it's primary anti-armor missile for the advanced attack helicopter (AAH-64). The AGM-114K gives the USMC AH-1W helicopter the ability to penetrate modern armor with minimum exposure of the launching platform to enemy counterfire. Approval for Full Rate Production was granted in March 1986.

FY 2000 represents the final procurement of the Hellfire II for the U.S. Navy. FY00 Congressional plus-up to ease a degrading inventory.

<u>Quantities Summary</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
Navy	200	0	220	0

*Prior year funding is for HELLFIRE II AGM-114K only and does not include HELLFIRE AGM-114B.

CLASSIFICATION:

UNCLASSIFIED

WEAPONS PROCUREMENT, NAVY
FY 2001 PRESIDENT BUDGET

UNCLASSIFIED

MISSILE COST ANALYSIS
EXHIBIT P-5
(Dollars in Millions)

CLASSIFICATION:

Missile Nomenclature & Popular Name:

AGM-114K (HELLFIRE II)

Date: February 2000

<u>Cost Elements</u>	Prior Years*	FY 1998	Quantity	Unit Cost	Total Cost	FY 1999	Quantity	Unit Cost	Total Cost	FY 2000	Quantity	Unit Cost	Total Cost
<u>Missile Hardware</u>	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>									
AUR	102.732	200	0.06205	12.410						220.00	0.06536	14.380	
Total Hardware	102.732		0.06205	12.410						220.00	0.06536	14.380	
<u>Recurring Production Support</u>													
Govt In-House	9.047			3.452									2.721
Govt Test Program	3.401			2.125									
Contractor SE/PM	12.596			0.375									2.270
Total Recurring Prod Support	25.044			5.952									4.991
RECURRING FLYAWAY	127.776	200	0.09181	18.362						220.00	0.08805		19.371
<u>Non-Recurring Costs</u>													
Acceptance Test Equipment Containers	1.702			0.048									0.257
Second Source Product Improvement	1.702			0.048									0.257
Total Non-Recurring Costs	1.702			0.048									0.257
TOTAL MISSILE FLYAWAY	129.478	200	0.09205	18.410						220.00	0.08922		19.628
<u>Fleet Support</u>													
Test Equipment													
Handling Equipment	0.694												
Training Equipment	0.466												
Data & Pubs	0.355												0.019
Integrated Logistics Support	2.701			1.410									0.281
Total Fleet Support	4.216			1.410									0.300
Weapon System Cost	133.696	200	0.09910	19.820						220.00	0.09058		19.928
Modifications													
Initial Spares	0.714			0.200									
Total Program Cost	134.410	200	0.10010	20.020						220.00	0.09058		19.928

*The amount Identified against this Cost Element reflects total prior year funding associated with this cost element.

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/2 - Other Missiles					C. P-1 ITEM NOMENCLATURE HELLFIRE II AGM-114K			SUBHEAD Y2F6		
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<u>HELLFIRE II</u>										
FY 1998	200	62.05	HUNTSVILLE, ALABAMA	JUNE 1998	MIPR/FFP	LOCKHEED MARTIN, HUNTSVILLE, ALABAMA HELLFIRE SYSTEMS LIMITED LIABILITY CO (HSLLC)	8/98	3/00	YES	
FY 2000	220	65.36	HUNTSVILLE, ALABAMA	APRIL 2000	MIPR/FFP	LOCKHEED MARTIN, HUNTSVILLE, ALABAMA HELLFIRE SYSTEMS LIMITED LIABILITY CO (HSLLC)	6/00	12/01	YES	
D. REMARKS										

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET										DATE:	
P-40										FEBRUARY 2000	
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE					
Weapons Procurement, Navy						PENGUIN (J2GS) PEO(CU)					
BA2 - Other Missiles											
	1997 & Prior Years	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY	107	4	0	10	0	0	0	0	0	0	121
COST (\$M)	\$165.1	\$7.3	\$0.0	\$10.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$182.4
Initial Spares (\$M)	\$6.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6.4
Total (\$M)	\$171.5	\$7.3	\$0.0	\$10.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$188.8
Unit Cost (\$M)	\$1.603	\$0.984	\$0.000	\$0.976	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.507
<p>The Penguin missile system is an Anti-Ship Missile, manufactured in Norway by Kongsberg Defense and Aerospace. The missile, designated the AGM-119B, is launched from the SH-60B LAMPS MK III helicopter operating from U.S. Navy ships. The Penguin will also be integrated into the Navy's next generation SH-60 aircraft, the SH-60R. The Penguin missile is a short-to-medium range, rolling airframe, inertially guided missile with passive infrared terminal homing. The Naval Air Systems Command, PMA-258, provides total life cycle support for the Penguin missile to meet customer requirements and to support fleet operations. The Navy has procured a total of 111 AUR missiles. The last Penguin AUR missile buy for the Navy was FY 1998.</p> <p>This budget reflects the procurement of 10 Penguin Missiles in the tactical configuration.</p>											

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 2000				
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2; OTHER MISSILES				P-1 ITEM NOMENCLATURE AERIAL TARGETS (J2EM) PE: 0204228N / 0204162N							
Program Element for Code B Items: 0604258N, 0605130D, 0604366N				Other Related Program Elements N/A							
	Prior Years	ID Code	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY											
COST (In Millions)	\$2599.7	A	\$68.9	\$46.0	\$58.9	\$62.2	\$59.4	\$79.4	\$81.0	Cont.	Cont.
<p>PROGRAM COVERAGE:</p> <p>The Aerial Targets Program provides powered targets, towed targets and necessary Target Auxiliary and Augmentation Systems (TA/AS) equipment for fleet training, and weapons systems test and evaluation. This program is comprised of a series of continuing target production programs.</p> <p>JUSTIFICATION OF BUDGET YEAR REQUIREMENTS:</p> <p>In Fiscal Years 2001, major efforts include the procurement of the Sub-Sonic Aerial Target (SSAT) and the Supersonic Sea Skimming Target (SSST). TA/AS procurements include target command/control equipment, scoring equipment, location and identification equipment, navigation equipment, electronic countermeasures equipment, and active emitter augmentation equipment. The aerial targets and necessary TA/AS equipment provided from this program supports Navy air-to-air and surface-to-air training and weapons systems DT/OT testing.</p>											

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS									B. DATE	
P-5									February 2000	
APPROPRIATION/BUDGET ACTIVITY										
WEAPONS PROCUREMENT, NAVY/BA-2 OTHER MISSILES										
COST CODE	ELEMENT OF COST	IDENT CODE	Prior Years Total Cost	FY 1999		FY 2000		FY 2001		
				QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	
EM020	Anti-Air Warfare Target	A	\$175,316	26	\$8,235	0	\$845	0	\$750	
EM030	Subsonic Aerial Target	A	\$381,667	86	\$30,245	72	\$27,826	85	\$27,237	
EM200	OTHER TARGETS	B (1)	\$109,671	18	\$12,947	16	\$11,498	25	\$14,909	
EM300	TA/AS	A	\$177,156		\$17,509		\$5,801		\$15,995	
	VARIOUS (2)		\$1,817,484		\$0		\$0		\$0	
TOTAL			\$2,661,293	130	\$68,936	88	\$45,970	110	\$58,891	
SPARES (3)										
	Anti-Air Warfare Target		\$0		\$0		\$0		\$0	
	Subsonic Aerial Target		\$245		\$210		\$0		\$0	
	OTHER TARGETS		\$703		\$0		\$0		\$0	
	TA/AS		\$156		\$207		\$200		\$31	
	VARIOUS (2)		\$53,947		\$0		\$0		\$0	
TOTAL SPARES			\$55,469		\$417		\$200		\$31	
TOTAL PROGRAM			\$2,716,762	130	\$69,353	88	\$46,170	110	\$58,922	

ITEM NO. 13

UNCLASSIFIED

(1) See "Other Targets" P-5 for RDT&E and FCT program elements.

(2) The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY 1998 and beyond.

(3) Initial spares requirements are displayed for information purposes only and are budgeted in Budget Activity 6, Spare and Repair Parts.

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

February 2000

TARGET SYSTEM: SUBSONIC AERIAL TARGET MANUF: NORTHROP-GRUMMAN TO COST CODE: EM030 FLYAWAY COST (\$000000)	FISCAL YEAR 1999			FISCAL YEAR 2000			FISCAL YEAR 2001			
	Prior Yrs Total Cost	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
HARDWARE:										
TARGET (1)	\$279,686	86	\$258	\$22,208	72	273	\$19,633	85	265	\$22,525
INSTALL/MISSION KITS	\$37,533			\$3,707			\$2,600			\$2,979
TOTAL HARDWARE	\$317,219	86	\$301	\$25,915	72	309	\$22,233	85	300	\$25,504
PROCUREMENT SUPPORT (RECURRING):										
GOVERNMENT IN-HOUSE	\$13,685			\$1,557			\$1,549			\$1,588
DOCUMENTATION	\$1,705			\$201			\$205			\$120
GOVERNMENT TEST	\$1,644			\$465			\$474			\$25
TOTAL RECURRING	\$17,034			\$2,223			\$2,228			\$1,733
PROCUREMENT SUPPORT (NONRECURRING):										
PRODUCT IMPROVEMENT	\$180			\$1,169			\$1,273			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$588			\$0
TOTAL NONRECURRING	\$360			\$1,169			\$1,861			\$0
TOTAL FLYAWAY	\$334,613	86	\$341	\$29,307	72	366	\$26,322	85	320	\$27,237
GROUND EQUIPMENT/FLEET SUPPORT COST:										
GROUND EQUIPMENT	\$3,662			\$379			\$825			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$0			\$0			\$0			\$0
TRAINING DEVICES	\$262			\$36			\$37			\$0
DOCUMENTATION	\$998			\$0			\$0			\$0
ILS	\$4,956			\$523			\$642			\$0
TOTAL GRD EQUIP/FLEET SUP COST	\$9,878			\$938			\$1,504			\$0
WEAPONS SYSTEM COST	\$344,491	86	\$352	\$30,245	72	386	\$27,826	85	320	\$27,237
TARGETS INITIAL SPARES	\$245			\$210			\$0			\$0
TOTAL PROGRAM COST	\$344,736	86	\$354	\$30,455	72	386	\$27,826	85	320	\$27,237

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

February 2000

TARGET SYSTEM: ANTI-AIR WARFARE TARGET (AAW) MANUFACTURER: RAYTHEON AIRCRAFT, WICHITA, KS COST CODE: EM020 FLYAWAY COST (\$000)	FISCAL YEAR 1999			FISCAL YEAR 2000			FISCAL YEAR 2001			
	Prior Yrs Total Cost	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
HARDWARE:										
TARGET	\$107,861	26	\$237	\$6,158	0	\$0	\$0	0	\$0	\$0
GFM-BATTERIES	\$1,837			\$159			\$0			\$0
GFM-IRFNA (1)	\$3,691			\$0			\$0			\$0
INSTALL/MISSION KITS	\$13,214			\$79			\$0			\$0
EXTENDED PERFORMANCE KITS (2)	\$4,626			\$0			\$0			\$0
TOTAL HARDWARE	\$131,229	26	\$246	\$6,396	0	\$0	\$0	0	\$0	\$0
PROCUREMENT SUPPORT (RECURRING):										
GOVERNMENT IN-HOUSE (3)	\$10,945			\$1,231			\$845			\$750
DOCUMENTATION	\$2,575			\$82			\$0			\$0
GOVERNMENT TEST	\$2,093			\$119			\$0			\$0
TOTAL RECURRING	\$15,613			\$1,432			\$845			\$750
PROCUREMENT SUPPORT (NONRECURRING):										
PRODUCT IMPROVEMENT	\$13,364			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$13,364			\$0			\$0			\$0
TOTAL FLYAWAY	\$160,206	26	\$301	\$7,828	0	\$0	\$845	0	\$0	\$750
GROUND EQUIPMENT/FLEET SUPPORT COST:										
GROUND EQUIPMENT	\$0			\$0			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$469			\$0			\$0			\$0
TRAINING DEVICES	\$241			\$31			\$0			\$0
DOCUMENTATION	\$242			\$0			\$0			\$0
ILS	\$4,184			\$376			\$0			\$0
TOTAL GRD EQUIP/FLEET SUP COST	\$5,136			\$407			\$0			\$0
WEAPONS SYSTEM COST	\$165,342	26	\$317	\$8,235	0	\$0	\$845	0	\$0	\$750
TARGETS INITIAL SPARES				\$0			\$0			\$0
TOTAL PROGRAM COST	\$165,342	26	\$317	\$8,235	0	\$0	\$845	0	\$0	\$750

(1) Inhibited Red Fuming Nitric Acid.

(2) Extended performance kits are required to perform missions at altitudes from 70,000 to 100,000 feet at velocities from Mach 3 to Mach 4.

(3) FY00/01 government in-house to cover production support for the deliveries scheduled in FY00/01.

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

February 2000

TARGET SYSTEM: OTHER TARGETS MANUF: VARIOUS COST CODE: EM200 FLYAWAY COST (\$000)	FISCAL YEAR 1999			FISCAL YEAR 2000			FISCAL YEAR 2001			
	Prior Yrs Total Cost	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
HARDWARE:										
MQM-8G(EER) VANDAL	\$67,370	0		\$0	0		\$0	0		\$0
Supersonic Sea Skimming Target (SSST) (1)	\$7,643	18	\$550	\$9,891	16	\$536	\$8,577	25	\$537	\$13,425
SM-2 TARGET	\$0	0		\$2,000	0		\$0	0	\$0	\$0
FOREIGN NDI - SUPERSONIC (2)	\$725	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0
FOREIGN NDI - SUBSONIC (2)	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0
ANCILLARY EQUIP (4)	\$2,503			\$0			\$1,671			\$0
QF-4N	\$6,735									
TOTAL HARDWARE	\$84,976	18	\$550	\$11,891	16	\$641	\$10,248	25	\$537	\$13,425
PROCUREMENT SUPPORT (RECURRING):										
GOVERNMENT IN-HOUSE (3)	\$9,443			\$1,017			\$588			\$990
DOCUMENTATION	\$1,000			\$39			\$29			\$29
GOVERNMENT TEST	\$300			\$0			\$0			\$0
TOTAL RECURRING	\$10,743			\$1,056			\$617			\$1,019
PROCUREMENT SUPPORT (NONRECURRING):										
PRODUCT IMPROVEMENT	\$3,726			\$0			\$0			\$0
CONTRACTOR ENGINEERING	\$1,435			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$5,161			\$0			\$0			\$0
TOTAL FLYAWAY	\$100,880	18		\$12,947	16	\$679	\$10,865	25	\$578	\$14,444
GROUND EQUIPMENT/FLEET SUPPORT COST:										
GROUND EQUIPMENT	\$2,105			\$0			\$449			\$465
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$784			\$0			\$184			\$0
TRAINING DEVICES	\$64			\$0			\$0			\$0
DOCUMENTATION	\$1,665			\$0			\$0			\$0
ILS	\$2,509			\$0			\$0			\$0
TOTAL GRD EQUIP/FLEET SUP COST	\$7,127			\$0			\$633			\$465
WEAPONS SYSTEM COST	\$108,007	18		\$12,947	16	\$719	\$11,498	25	\$596	\$14,909
TARGETS INITIAL SPARES	\$703			\$0			\$0			\$0
TOTAL PROGRAM COST	\$108,710	18		\$12,947	16	\$719	\$11,498	25	\$596	\$14,909

(1) Supersonic Sea Skimming Target (SSST) RDT&E PE 0604258N and FCT PE 0605130D. SSST Follow-on to be procured starting in FY02.

(2) Unit price is not applicable; various items are procured under this line item.

(3) This line for FY99 is increased for TCS.

(4) Supports aircraft integration and enhanced utility efforts.

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

February 2000

TARGET SYSTEM: TA/AS MANUFACTURER: VARIOUS COST CODE: EM300 FLYAWAY COST (\$000)	Prior Yrs Total Cost	FISCAL YEAR 1999			FISCAL YEAR 2000			FISCAL YEAR 2001		
		QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
HARDWARE:										
CMD/CONTROL EQUIPMENT	\$26,849			\$4,416			\$0			\$3,452
SCORING EQUIPMENT	\$18,151			\$1,992			\$0			\$2,540
LOCATION/ID EQUIP	\$12,894			\$1,760			\$280			\$1,761
ECM/EMITTER EQUIP	\$39,513			\$4,603			\$1,019			\$3,432
AUGMENT/NAVIGAT EQUIP	\$8,952			\$857			\$535			\$431
INSTALL/MISSION EQUIP	\$1,522			\$535			\$0			\$566
MOBILE SEA RANGE	\$12,868			\$0			\$0			\$0
TOTAL HARDWARE	\$120,749			\$14,163			\$1,834			\$12,182
PROCUREMENT SUPPORT (RECURRING):										
GOVERNMENT IN-HOUSE	\$25,900			\$2,638			\$3,967			\$3,080
DOCUMENTATION	\$99			\$0			\$0			\$0
GOVERNMENT TEST	\$276			\$0			\$0			\$0
TOTAL RECURRING	\$26,275			\$2,638			\$3,967			\$3,080
PROCUREMENT SUPPORT (NONRECURRING):										
PRODUCT IMPROVEMENT	\$1,300			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$1,300			\$0			\$0			\$0
TOTAL FLYAWAY	\$148,324			\$16,801			\$5,801			\$15,262
GROUND EQUIPMENT/FLEET SUPPORT COST:										
GROUND EQUIPMENT	\$488			\$0			\$0			\$0
INSTALL & CHECKOUT	\$917			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$2,002			\$0			\$0			\$0
TRAINING DEVICES	\$444			\$0			\$0			\$25
DOCUMENTATION	\$0			\$0			\$0			\$0
ILS	\$12,390			\$708			\$0			\$708
TOTAL GRD EQUIP/FLEET SUP COST	\$16,241			\$708			\$0			\$733
WEAPONS SYSTEM COST	\$164,565			\$17,509			\$5,801			\$15,995
TARGETS INITIAL SPARES	\$156			\$207			\$200			\$31
TOTAL PROGRAM COST	\$164,721			\$17,716			\$6,001			\$16,026

UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE February 2000	
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2; Other Missiles					C. P-1 ITEM NOMENCLATURE AERIAL TARGETS				SUBHEAD J2EM	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
Anit-Air Warfare Target/FY-96	70	125	NAVAIR	8 DEC 94	C/Option	Raytheon A/C, Wichita, KS	FEB 96	JUN 97		
Anit-Air Warfare Target/FY-97	110	125	NAVAIR		C/Option	Raytheon A/C, Wichita, KS	FEB 97	JUN 98		
Anit-Air Warfare Target/FY-98	50	144	NAVAIR		C/Option	Raytheon A/C, Wichita, KS	DEC 97	JUN 99	Yes	
Anit-Air Warfare Tgt/FY-99 (1)	35	156	NAVAIR		SS/FP	Raytheon A/C, Wichita, KS	JUN 99	JUN 00	Yes	MAY 98
Subsonic Aerial Target/FY-96	120	218	NAVAIR	1 APR 95	C/FP	Northrop-Grumman, Hawthorne, CA	APR 96	JUL 97		
Subsonic Aerial Tgt/FY-96 (2)	29	242	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	MAR 97	JUN 98		
Subsonic Aerial Tgt/FY-97	64	242	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	MAR 97	JUN 98		
Subsonic Aerial Tgt/FY-98 (3)	116	252	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	DEC 97	MAY 99	Yes	
Subsonic Aerial Tgt/FY-99	86	258	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	DEC 98	APR 00	Yes	
Subsonic Aerial Target/FY-00	72	273	NAVAIR		C/FP	TBD	FEB 00	JUN 01		
Subsonic Aerial Target/FY-01	85	265	NAVAIR		C/Option	TBD	FEB 01	JUN 02		
Supersonic Sea Skimming Target SSST/FY-99	18	536	NAVAIR		SS/FP	McDonnell Douglas, St. Louis, MO	DEC 99	FEB 01		
SSST/FY-00	16	536	NAVAIR		SS/Option	McDonnell Douglas, St. Louis, MO	DEC 99	FEB 01		
SSST/FY-01	25	537	NAVAIR		SS/Option	McDonnell Douglas, St. Louis, MO	DEC 00	OCT 01		
Foreign NDI-Supersonic/FY-98	1	725(4)	NSMA	N/A	FP	CLASSIFIED	MAR 98	NOV98	N/A	

D. REMARKS
 (1) The FY-99 Anti-Air Warfare Target version will include the updated avionics system (old system will be replaced due to obsolete components).
 (2) Additional units procured on FY 97 contract.
 (3) Target quantity decreased due to incorporation of VECP-187.
 (4) Unit price for Foreign NDI program is not applicable; various items are procured under this line item.

FY 2001 BUDGET PRODUCTION SCHEDULE, P-21						DATE February 2000																				
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2 - OTHER MISSILES						Weapon System						P-1 ITEM NOMENCLATURE AERIAL TARGETS														
						Production Rate			Procurement Leadtimes																	
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure												
Supersonic Sea Skimming Tgt.	McDonnell Douglas, St Louis, MO					N/A	N/A	42+			5			E												
FOREIGN NDI	Foreign Non-Developmental Items					N/A	N/A	N/A			N/A			N/A												
						FISCAL YEAR 2002						FISCAL YEAR 2003														
ITEM / MANUFACTURER						2001		CALENDAR YEAR 2002						CALENDAR YEAR 2003						BAL						
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV		DEC	JAN	FEB	MAR	APR	MAY
Supersonic Sea Skimming Tgt./MDC	01	N	25	0	25	1	4	4	4	4	4															0
						FISCAL YEAR 2004						FISCAL YEAR 2005														
ITEM / MANUFACTURER						2003		CALENDAR YEAR 2004						CALENDAR YEAR 2005						BAL						
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV		DEC	JAN	FEB	MAR	APR	MAY
Remarks:																										

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-20, Requirements Study		APPROPRIATION/BUDGET ACTIVITY					DATE:	
P-1 ITEM NOMENCLATURE		Admin Leadtime (after Oct1):			Prod Leadtime :			
ANTI-AIR WARFARE TARGET (AAW)		4 Months			16 Months			
		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Buy Summary		35	0	0	0	0	0	0
Unit Cost (Vehicle)		.16	.00	.00	.00	.00	.00	.00
Total Cost		\$5.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Asset Dynamics								
Beginning Asset Position		165	229	241	229	194	159	124
Deliveries from all prior year funding		94	35					
Deliveries from FY 1999 funding			12	23				
Deliveries from FY 2000 funding				0	0			
Deliveries from FY 2001 funding					0	0		
Deliveries from subsequent years' funding						0	0	0
Other Gains								
Combat Losses/Usage								
Training/Test/Other Losses/Usage (1)		30	35	35	35	35	35	35
Disposals/Retirements/Attritions/etc.								
End of Year Asset Position		229	241	229	194	159	124	89
Inventory Objective:								
Combatant Shipfill								
Expenditures								
Training & Testing Rqmt								
Depot Maint. Pipeline								
Other-WSPD of JAN 97		140	140	140	140	140	140	140
Peacetime Pipeline								
TOTAL Inventory Objective:		140	140	140	140	140	140	140
Approved Acquisition Objective		140	140	140	140	140	140	140
		Remarks:						
Other than Training Usage	Actual Training Expenditures	(1) Numbers changed to more accurately reflect expenditures.						
FY 2000 thru 12-31-99	FY 1999 thru 12-31-99							
4	4							
FY 1999: 16	FY 1999: 14							
FY 1998: 11	FY 1998: 30							
FY 1997: 23	FY 1997: 52							
FY 1996: 35	FY 1996: 58							

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-20, Requirements Study		APPROPRIATION/BUDGET ACTIVITY WPN/BA-2 Other Missiles					DATE: February 2000		
P-1 ITEM NOMENCLATURE SUBSONIC AERIAL TARGET		Admin Leadtime (after Oct1): 4 Months			Prod Leadtime : 16 Months				
		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	
Buy Summary		90	91	85	96	45	145	145	
Unit Cost (Vehicle)		.26	.26	.27	.27	.33	.25	.26	
Total Cost		\$23.2	\$23.7	\$22.5	\$25.4	\$14.9	\$36.4	\$37.3	
Asset Dynamics									
Beginning Asset Position		255	250	246	214	212	179	158	
Deliveries from all prior year funding		109	70						
Deliveries from FY 1999 funding			46	44					
Deliveries from FY 2000 funding				24	48				
Deliveries from FY 2001 funding					50	35			
Deliveries from subsequent years' funding						42	99	70	
Other Gains									
Combat Losses/Usage									
Training/Test/Other Losses/Usage (1)		114	120	100	100	110	120	120	
Disposals/Retirements/Attritions/etc.									
End of Year Asset Position		250	246	214	212	179	158	108	
Inventory Objective:									
Combatant Shipfill									
Expenditures									
Training & Testing Rqmt									
Depot Maint. Pipeline									
Other-WSPD of DEC 95		240	240	240	240	240	240	240	
Peacetime Pipeline									
TOTAL Inventory Objective:		240	240	240	240	240	240	240	
Approved Acquisition Objective		240	240	240	240	240	240	240	
		Remarks:							
Other than Training Usage	Actual Training Expenditures	(1) Numbers changed to more accurately reflect expenditures.							
FY 2000 thru 12-31-99	FY 2000 thru 12-31-99								
0	15								
FY 1999: 9	FY 1999: 105								
FY 1998: 10	FY 1998: 110								
FY 1997: 33	FY 1997: 82								
FY 1996: 34	FY 1996: 118								

CLASSIFICATION:

FY 2001 PRESIDENT'S BUDGET SUBMISSION

BUDGET ITEM JUSTIFICATION SHEET					DATE: February 2000							
P-40												
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2; OTHER MISSILES					P-1 ITEM NOMENCLATURE DRONES AND DECOYS (J2DJ)							
Program Element for Code B Items: N/A					Other Related Program Elements N/A							
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY												
COST (In Millions)	\$225.0		\$3	\$8.3	\$10.0	\$0	\$0	\$0	\$0	\$0	\$0	\$233.6
<p>PROGRAM COVERAGE:</p> <p>Funding for Drones and Decoys from FY 1986 through FY 1993 has been used for continued procurements of ADM-141 Tactical Air Launched Decoy (TALD) units, which are non-powered, glide trajectory driven vehicles. The ADM-141 TALD is an expendable of similar size to a 500 pound general purpose bomb, and is carried similarly. After launched from strike aircraft, the ADM-141 TALD uses radar signature augmentation and preprogrammed flight profiles to simulate manned aircraft. Its mission is to deceive and saturate hostile radar controlled air defenses, thus enhancing strike aircraft survivability. Currently, the F/A-18, F-14 and S-3 are fully qualified to deploy the ADM-141 TALD in both land Based and CV operations. Additionally, an AV-8B/TALD capability is planned.</p> <p>FY99 funding was provided by Congress for the Improved Tactical Air Lauch Decoy (ITALD) Program. ITALD currently meets Operational Requirements Document (ORD) requirements for accuracy, however operationally it was determined that the accuracy is inadequate to support the mission of long range suppression and saturation of threat Integrated Air Defense Systems. An Engineering Change Proposal will be issued to the FY98 contract for a navigational and engine upgrade.</p> <p>FY00 funding was provided by Congress to retrofit existing ITALDS from the FY96 and FY98 contracts and to procure approximately 55 ITALDs.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

February 2000

TARGET SYSTEM: ITALD MANUFACTURER: IMI LTD, RATAT HASHARON, IS COST CODE: DJ010 FLYAWAY COST (\$000)	Prior Yrs Total Costs	FISCAL YEAR 98			FISCAL YEAR 99			FISCAL YEAR 00			FISCAL YEAR 01		
		QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
HARDWARE:													
ITALD	\$35,655	0		\$0			\$0	55	127	\$7,000	0		\$0
CONTAINERS	\$355			\$0			\$0			\$0			\$0
TOTAL HARDWARE	\$36,010	0		\$0	0		\$0	55		\$7,000	0		\$0
PROCUREMENT SUPPORT (RECURRING):													
CONTRACTOR ENGINEERING	\$812			\$0			\$0			\$0			\$0
GOVERNMENT IN-HOUSE	\$2,729			\$289			\$268			\$964			\$0
DOCUMENTATION	\$166			\$0			\$0			\$0			\$0
GOVERNMENT TEST	\$1,531			\$0			\$0			\$0			\$0
OTHER	\$0			\$0			\$0			\$0			\$0
TOTAL RECURRING	\$5,238			\$289			\$268			\$964			\$0
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$0			\$0			\$8,000			\$2,000			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$0			\$0			\$8,000			\$2,000			\$0
TOTAL FLYAWAY	\$41,248	0	\$0	\$289	0	\$0	\$8,268	55	\$181	\$9,964	0	\$0	\$0
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$0			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$24			\$0			\$0			\$0			\$0
DOCUMENTATION	\$0			\$0			\$0			\$0			\$0
ILS	\$784			\$0			\$0			\$0			\$0
TOTAL GRD EQUIP/FLEET SUP COST	\$808			\$0			\$0			\$0			\$0
WEAPONS SYSTEM COST	\$42,056	0	\$0	\$289	0	\$0	\$8,268	55	\$181	\$9,964	0	\$0	\$0
VARIOUS 1/	\$182,967			\$0			\$0			\$0			\$0
INITIAL SPARES	\$0			\$0			\$0			\$0			\$0
TOTAL PROGRAM COST	\$225,023	0	\$0	\$289	0	\$0	\$8,268	55	\$181	\$9,964	0	\$0	\$0

P-1 SHOPPING LIST

ITEM NO.

14

PAGE NO. 2

1/ The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY 1997 and beyond.

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY									February 2000			
									C. P-1 ITEM NOMENCLATURE			
Weapons Procurement, Navy/BA-2; Other Missiles									DRONES AND DECOYS		J2DJ	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE		
ADM-141C/FY-94	81	195(1)	NAVAIR	15 MAY 96	SS/FP	Israeli Military Industries, Ramat Hasharon, IS	SEP 96	AUG 98	YES	N/A		
ADM-141C/FY-95	17	318(1)	NAVAIR		SS/FP	Israeli Military Industries, Ramat Hasharon, IS	SEP 96	JUN 98	YES	N/A		
ADM-141C/FY-97	110	127	NAVAIR		SS/FP	Israeli Military Industries, Ramat Hasharon, IS	MAR 98	JUL 99	YES	N/A		
ADM-141C/FY-00	55	127	NAVAIR		SS/FP	Israeli Military Industries, Ramat Hasharon, IS	TBD	TBD	YES	N/A		

D. REMARKS
 (1) FY-94 and FY-95 contracts were awarded concurrently. FY-95 funding was used for first article test units. The actual unit cost for production vehicles was \$193,116.00

CLASSIFICATION:

BUDGET ITEM JUSTIFICATION SHEET										DATE:	
P-40										February 2000	
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE					
Weapons Procurement, Navy/2						OTHER MISSILE SUPPORT/2290					
Program Element for Code B Items:						Other Related Program Elements					
N/A						N/A					
	Prior Years	ID Code	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY											0
COST (\$M)	\$17.8	A	\$15.1	\$12.7	\$14.9	\$15.8	\$21.2	\$25.6	\$27.1	N/A	\$150.3
Initial Spares (\$M)	\$0.6		\$0.5	\$0.7	\$0.5	\$0.5	\$0.7	\$0.7	\$0.8	N/A	\$5.0
<p>The Vertical Launching System (VLS) is a missile launching system for surface combatants, designed to launch STANDARD Missile, TOMAHAWK, EVOLVED SEASPARROW and Vertical Launch ASROC (VLA) weapons. The VLS significantly improves missile capacity, flexibility, multi-mission capability, reaction time and rate of fire and is designed to be adaptable to present and future weapon systems. Present requirements are to provide two 61 cell launchers for 22 TICONDEROGA (CG-47) Class Cruisers beginning with CG-52, one 61 cell launcher for 24 SPRUANCE (DD-963) Class Destroyers and one 61 cell and one 29 cell launcher for 57 ARLEIGH BURKE (DDG-51) Class Destroyers. A 61 cell launcher consists of eight VLS modules and 61 canisters. Canisters are used as a storage/shipping container for missiles ashore and as the magazine and firing tube aboard ship. In order to support the operating forces, it is necessary to have sufficient encanisterized missiles on hand to fill the logistic pipeline associated with the Combat Logistics Force (CLF) transportation times and mobilization considerations. To accomplish this, one canister is required for every VLS missile variant that is procured. In addition, a small percentage of canisters are procured to cover those canisters that are lost , damaged or destroyed. Funds are for the procurement of VLS canisters, and to provide VLS unique equipment to the weapon facilities and to provide ILS for canisters procured with WPN funds. Prior to FY-96, canisters were also funded by SCN and OPN Appropriations. EVOLVED SEASPARROW Quad Pack (ESSM/QP) missile is being designed to provide an enhanced ship self defense capability for DDG-51 Flight IIA (DDG-79 and follow) ships. Procurement of the ESSM/QP canisters are budgeted starting in FY-01 under BLI #230700/EVOLVED SEAPARROW (ESSM).</p>											

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD OTHER MISSILE SUPPORT/2290 (A2FD)										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years				FY 1999			FY 2000			FY 2001		
			Total Cost				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
FD005	TYPE I CANISTERS SM-2 MR BLK III/IIIA/IIIB (MK-13)		2,212				75	33.9	2,546	75	33.5	2,513	75	33.7	2,527
FD006	TYPE II CANISTERS SM-2 BLK IV (MK-21 MOD 0) SM-2 BLK IVA (MK-21 MOD 1)		5,155				36	138.3	4,977	12	176.2	2,114	15	156.1	2,342
FD009	CANISTER EQUIPMENT		1,176						1,078			1,530			1,557
FD970	ILS SUPPORT		8,354						6,461			6,580			7,004
FD980	INITIAL TRAINING SUPPORT		950						0			0			1,472
			17,847				0		15,062			12,737			14,902

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Weapons Procurement, Navy/2					OTHER MISSILE SUPPORT/2290				A2FD	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY 99										
FD005/TYPE I CANS SM-2 BLK III/IIIA/IIIB	75	33.9	NAVSEA		FP/ OPT	United Defense, L.P. MINNEAPOLIS, MN	02/99	04/00	YES	
FD006/ TYPE II CANS SM-2 BLK IV	36	138.3	NAVSEA		FP/ OPT	United Defense, L.P. MINNEAPOLIS, MN	02/99	04/00	YES	
FY 00										
FD005/TYPE I CANS SM-2 BLK III/IIIA/IIIB	75	33.5	NAVSEA		FP/ OPT	United Defense, L.P. MINNEAPOLIS, MN	01/00	03/01	YES	
FD006/ TYPE II CANS SM-2 BLK IVA	12	176.2	NAVSEA		FP/ OPT	United Defense, L.P. MINNEAPOLIS, MN	03/00	03/01	YES	
FY 01										
FD005/TYPE I CANS SM-2 BLK III/IIIA/IIIB	75	33.7	NAVSEA		FP/ OPT	United Defense, L.P. MINNEAPOLIS, MN	01/01	02/02	YES	
FD006/ TYPE II CANS SM-2 BLK IVA	15	156.1	NAVSEA		FP/ OPT	United Defense, L.P. MINNEAPOLIS, MN	01/01	01/02	YES	
D. REMARKS										

BUDGET ITEM JUSTIFICATION SHEET											DATE:			
P-40											February 2000			
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE							
Weapons Procurement, Navy/							BA - 2 Other Missiles						AIM-9 Sidewinder Mods	
Program Element for Code B Items:							Other Related Program Elements						0207161N	
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program		
QUANTITY				0	0	63	157	283	298	291	3,908	5,000		
COST (\$M)	46.1		0.3	0.0	0.0	27.5	42.8	60.9	62.2	63.5	861.7	1118.6		

The AIM-9 Sidewinder short-range air-to-air missile (SRM) is a launch and leave, air combat munition that uses passive infrared (IR) energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-to-Air Missile. Air superiority in the SRM arena is essential and includes first shot, first kill opportunity against an enemy employing IR countermeasures.

Funds in FY 2001 and beyond will fund the AIM-9X. The AIM-9X is a long-term evolution to the AIM-9 which provides improvements in missile seeker, and kinematics by retrofit of components to current missiles to the maximum extent possible. Retrofitting of components will extend the operational effectiveness of existing inventories at an affordable cost while continuing the evolution of the AIM-9 series. Anti-Tamper features will be incorporated to protect improvements inherent to this design. The Defense Acquisition Board (DAB) approved the Low Rate Initial Production (LRIP) acquisition strategy in December 1996 as part of the MS II decision. This strategy includes a pricing agreement for the first three production lots, and sustainment activities to include depot level repair. A LRIP DAB to approve entry in LRIP is scheduled for August 00 in accordance with the approved acquisition strategy. This budget reflects the FY 00 Appropriation Act deferred LRIP I funding and corresponding delay in IOC to September, 2000.

FY 2001 Program Justification: Over the past year the AIM-9X development program has achieved a number of significant positive results and is on track for an August, 2000 decision to enter LRIP. The most important accomplishments include completing seven separation control test shots starting in March; performing three guided live fires starting in June which all resulted in successful direct kills of the target; and very positive accomplishments in Control Actuator System delivery schedule and tracker algorithms maturation. The total quantity of missiles produced will be a combination of AUR and CATM rounds. Navy quantities to be procured from FY 2000 through FY 2005 are as follows:

AIM-9X QUANTITIES	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Air Force	0	56	182	269	383	296
Navy	0	63	157	283	298	291

AIM-9X PE 0207161N, E0457
 AIM-9X PE 0207161F, AIR FORCE

CLASSIFICATION: UNCLASSIFIED

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: AIM-9X TYPE MODIFICATION: Missile Modification MODIFICATION TITLE: AIM-9X Missile Modification

DESCRIPTION/JUSTIFICATION:
 The AIM-9X is the long term evolution of the AIM-9, a fielded system, qualifying this as a research category operational systems development. Improvements in missile seeker and kinematics allow retrofit of components to current missiles to the maximum extent possible. Retrofitting of components will extend the operational effectiveness of existing inventories at an affordable cost while continuing evolution of the AIM-9 series.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: **Engineering Manufacturing Development**
EMD Contract Award Dec-96
LRIP DAB Aug-00
Milestone III SAE Review Mar-03

The Navy and Air Force successfully developed a restructured program to overcome schedule delays. The delays were due to issues with the Control Actuation System (CAS) and tracker software which have been rectified and tested. The restructured program is on track to meet LRIP entry criteria in Aug 00 for the rescheduled LRIP DAB. The flight test program has completed three guided firings which have demonstrated capabilities already better than the capabilities of the fielded AIM-9M.

	FY 1997 & Prior		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																							
RDT&E*		73.2		55.0		57.1		39.8		21.7		13.9		1.9		0.7		1.3					264.6
PROCUREMENT																							
INSTALLATION KITS	0	0.0	0	0.0	0	0.0	0	0.0	63	17.0	157	27.6	283	45.2	298	56.6	291	55.0	3608	731.5	5000	933.0	
INSTALLATION KITS - UNIT COST								0.0		0.3		0.2		0.2		0.2		0.2		0.2			
INSTALLATION KITS NONRECURRING								0.0		0.0		0.0		2.5		0.0		0.0		0.0		2.5	
SPEC TOOLING/SPEC TEST EQUIP								0.0		4.0		2.0		0.4		0.5		1.6		18.7		27.2	
ENGINEERING CHANGE ORDERS								0.0		0.8		1.1		0.9		0.9		1.1		21.4		26.2	
DATA								0.0		0.1		0.1		0.1		0.1		0.1		1.6		2.1	
GOVERNMENT IN-HOUSE								0.0		0.8		1.4		2.1		2.2		2.2		41.3		49.8	
TRAINING EQUIPMENT								0.0		2.8		3.8		1.4		0.0		1.6		24.8		34.4	
SUPPORT EQUIPMENT								0.0		0.5		2.5		0.8		0.0		0.0		0.0		3.8	
ILS								0.0		1.5		4.3		7.5		1.9		1.9		30.3		47.4	
INSTALL COST (INCLUDED IN INSTALLATION KITS (INCLUDES TEARDOWN, TEST AND SHIPPING))																							
TOTAL PROCUREMENT		0.0		0.0		0.0		0.0		27.5		42.8		60.9		62.2		63.5		869.6		1126.5	

* FY95 and prior funded under P.E. 0603715D.
 May not add due to rounding.

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)		INDIVIDUAL MODIFICATION (Continued)																							
MODELS OF SYSTEMS AFFECTED: <u>AIM-9X</u>		MODIFICATION TITLE: <u>AIM-9X MISSILE MODIFICATION</u>																							
INSTALLATION INFORMATION:																									
METHOD OF IMPLEMENTATION: <u>CONTRACTOR</u>																									
ADMINISTRATIVE LEADTIME: <u>2 Weeks (Lots 1-3)*</u>		PRODUCTION LEADTIME: <u>21 Months (Lots 1 and 2)**</u>																							
CONTRACT DATES: FY 1999: <u>Not Applicable</u>		FY 2000: <u>Not Applicable</u>				FY 2001: <u>Nov 2000</u>																			
DELIVERY DATE: FY 1999: _____		FY 2000: _____				FY 2001: <u>August 2002</u>																			
*Lots 4-7 -- 6 month leadtime		**Lot 3 18 month leadtime																							
(\$ in Millions)																									
Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT																									
FY 2000 EQUIPMENT																									
FY 2001 EQUIPMENT																									
FY 2002 EQUIPMENT																									
FY 2003 EQUIPMENT																									
FY 2004 EQUIPMENT																									
FY 2005 EQUIPMENT																									
TO COMPLETE																									

INSTALLATION SCHEDULE:																															
In Out	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
		0	0	0	0	0	0	0	0	48	0	0	0	63	64	0	0	69	69	70	0	74	75	0	0	71	71	0	0	3226	3900
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	16	29	0	12	31	43	60	53	56	68	102	27	4497	5000

INPUT SCHEDULE: DELIVERY OF COMPONENTS TO THE CONTRACTOR FOR TACTICAL MISSILES
 OUTPUT SCHEDULE: DELIVERY OF AUR FROM THE CONTRACTOR (DIFFERENCE BETWEEN INPUT AND OUTPUT SCHEDULE IS CATM'S)
 INPUT STARTS IN 1ST QTR FY01 TO ALLOW FOR TEAR-DOWN, INSPECTION, AND SHIPMENT OF GFE COMPONENTS TO THE CONTRACTOR.
 NOTE: THE SCHEDULE FOR LOT 4-17 IS NOT ON CONTRACT AND THE DELIVERIES WILL BE SUBJECT TO AWARD AND NEGOTIATION.
 NOTE: CONTRACT AWARD DATES AND DELIVERY SCHEDULES FOR LOTS 4-17 HAVE NOT BEEN ESTABLISHED. ONLY LOTS 1-3 ARE FPI OPTIONS ON THE CURRENT CONTRACT. P-3A

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET

BA 2 - Other Missiles

DATE:

February 2000

APPROPRIATION/BUDGET ACTIVITY

Weapons Procurement, Navy

P-1 ITEM NOMENCLATURE

HARM Mods - AGM-88C

Program Element for Code B Items:

2032700

Other Related Program Elements

0205601N

	Prior Years	ID Code			FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY	0	A			0	292	0	0	200	200	200	200	1,092
COST (\$M)	\$0.0				\$0.0	\$89.3	\$0.0	\$0.0	\$10.5	\$10.8	\$11.0	\$16.6	\$138.1
Initial Spares (\$M)	\$0.0				\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total (\$M)	\$0.0				\$0.0	\$89.3	\$0.0	\$0.0	\$10.5	\$10.8	\$11.0	\$16.6	\$138.1
Unit Cost (\$M)	0.000				0.000	0.306	0.000	0.000	0.053	0.054	0.055	0.083	0.126

MISSION/DESCRIPTION: The HARM (High Speed Anti-Radiation Missile) is a joint-service air-to-surface missile designed to suppress or destroy land and sea based radars involved with enemy air defense systems. HARM is integrated on the F/A-18 and EA-6B aircraft. HARM weighs 807 lbs, is 164 inches long and 10 inches in diameter. HARM is a joint-service program with USN (lead), USAF, and FMS participation. The HARM was in full production from FY1982 through FY1996. The USN procured 8,654 all-up-round (AUR) HARMs and 551 missile modification kits with WPN funding. The last year of USN WPN funding was appropriated in FY94.

The HARM weapon was recently deployed in the current North American Treaty Organization (NATO) military action in Kosovo, and also was utilized in Iraq and Bosnia. As the only missile that can successfully isolate and attack "Pop-up" and "Shoot and Scoot" anti-air defense systems, the HARM AGM-88C is the Fleet shooters weapon of choice.

The current HARM baseline is the AGM-88C (BlockV) configuration, however the AGM-88D (Block VI) is in development and will start production in FY03. Because a disproportionately higher number of AGM-88B (Block III) remain in the USN inventory, supplemental funding will be used to procure modification kits to upgrade approximately 292 AGM-88Bs to the current baseline. The current AGM-88C baseline offers greater capability against existing and advanced threats which includes capabilities to counter threats of high pulse densities, wider frequency agility (larger footprint), more complex patterns, and multiple engagement radars.

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

WEAPONS PROCUREMENT, NAVY
 FY 1998/99 DEPARTMENT OF THE NAVY BUDGET
 MISSILE COST ANALYSIS
 EXHIBIT P-5
 (Dollars in Millions)

Missile Nomenclature & Popular Name: HARM Mods - AGM-88C

Date: February 2000

Cost Elements	FY 1999			FY 2000			FY 2001		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
<u>Missile Hardware</u>									
AGM-88C Upgrade Kits *				292	264.438	77,216			
Total Hardware				292	264.438	77,216			
<u>Procurement Support</u>									
Production Engineering Support						7,698			
Production Support - Spare Parts						550			
Government Test Program (Telemetry)						2,100			
Containers				292	1.096	320			
Total Procurement Support						10,668			
Total Flyaway Cost				292	300.974	87,884			
<u>Fleet Support</u>									
Engineering Support						916			
Integrated Logistics Support						500			
Total Fleet Support						1,416			
Weapon System Cost				292	305.822	89,300			
Modifications									
Initial Spares									
Total Program Cost				292	305.822	89,300			

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Weapons Procurement, Navy					HARM AGM-88C				Y2ES	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY 2000	292	300.97388	NAVAIR	FEB 00	FFP	RAYTHEON MISSILE SYS TUCSON, AZ	MAY 00	DEC 01		
D. REMARKS										

CLASSIFICATION:

BUDGET ITEM JUSTIFICATION SHEET										DATE:																			
P-40										February 2000																			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2						P-1 ITEM NOMENCLATURE STANDARD MISSILE MODIFICATION (A2FK) BLI:235600																							
Program Element for Code B Items:						Other Related Program Elements																							
	Prior Years	ID Code	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program																		
QUANTITY	167		63	76	96	91	122	120	136	146	1,100																		
COST (\$M)	\$59.0		\$44.8	\$41.8	\$50.7	\$44.3	\$56.3	\$53.9	\$60.7	\$65.2	\$526.4																		
Initial Spares (\$M)											\$0.0																		
<p>PROGRAM OVERVIEW: The Standard Missile Modification Program provides for improvements in operational readiness and electronic counter measures (ECM) performance in the STANDARD Missiles currently deployed.</p> <p>All of these modifications are "turn-key" and do not involve separate install funding. The following modification projects included in this budget are:</p> <table style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 10%;">FY99</th> <th style="width: 10%;">FY00</th> <th style="width: 10%;">FY01</th> <th style="width: 10%;">FY02</th> <th style="width: 10%;">FY03</th> <th style="width: 10%;">FY04</th> <th style="width: 10%;">FY05</th> <th style="width: 10%;">TO COMPLETE</th> </tr> </thead> <tbody> <tr> <td>Missile Homing (WP,N)</td> <td>44847</td> <td>41772</td> <td>50690</td> <td>44298</td> <td>56339</td> <td>53896</td> <td>60719</td> <td>65223</td> </tr> </tbody> </table>													FY99	FY00	FY01	FY02	FY03	FY04	FY05	TO COMPLETE	Missile Homing (WP,N)	44847	41772	50690	44298	56339	53896	60719	65223
	FY99	FY00	FY01	FY02	FY03	FY04	FY05	TO COMPLETE																					
Missile Homing (WP,N)	44847	41772	50690	44298	56339	53896	60719	65223																					

P3A

MODELS OF SYSTEM AFFECTED: _____ TYPE MODIFICATION: _____ MODIFICATION TITLE: Missile Homing Improvement Program

DESCRIPTION/JUSTIFICATION:

The STANDARD Missile SM-2 is an integral element of the AEGIS weapon system and provides area defense against threats. The SM-2 BLK IIIB MHIP provides Homing Improvements to SM-2 BLK II/III missiles for operations in a hostile ECM environment. The SM-2 BLK IIIB Modification Kit includes the IR seeker, the MK45 Mod 9 Target Detecting Device(TDD), the MK 125 Warhead, the MK54 S&A Device and an updated Digital Signal Processor (DSP). Additionally, in FY98 and out years, the SM-2 BLK IIIB Modification shall include a regained MK104 Rocket Motor and replacement components for the guidance section and autopilot battery unit to address safety, performance and aging issues in the population of SM-2 BLK II/III missiles being upgraded to the SM-2 Block IIIB configuration.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC	TOTAL		
	QTY	\$	QTY	\$	QTY	\$												
<u>FINANCIAL PLAN (IN MILLIONS)</u>																		
<u>RDT&E</u>																		
<u>PROCUREMENT</u>																		
INSTALLATION KITS	63	35922.0	76	31500.0	96	38046.0	91	33707.0	122	42295.0	120	40464.0	136	45592.0	146	48955.0	1100	415219.0
INSTALLATION KITS/SLEP	63	8925.0	76	10272.0	96	12644.0	91	10591.0	122	14044.0	120	13432.0	136	15127.0	146	16268.0	933	111309.0
INSTALLATION KITS - UNIT COST		570.2		414.5		396.3		370.4		346.7		337.2		335.2		335.3		
INSTALLATION KITS/SLEP - UNIT COST		141.7		135.2		131.7		116.4		115.1		111.9		111.2		111.4		
INSTALLATION KITS NONRECURRING																		
EQUIPMENT																		
EQUIPMENT NONRECURRING																		
ENGINEERING CHANGE ORDERS																		
DATA																		
TRAINING EQUIPMENT																		
SUPPORT EQUIPMENT																		
OTHER																		
OTHER																		
OTHER																		
INTERIM CONTRACTOR SUPPORT																		
INSTALL COST																		
TOTAL PROCUREMENT		44847.0		41772.0		50690.0		44298.0		56339.0		53896.0		60719.0		65223.0		526528.0

CLASSIFICATION : UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

INSTALLATION INFORMATION : Missile Homing Improvement Program (MHIP) BLK IIIB

METHOD OF IMPLEMENTATION: Guidance sections will be reworked at the depots and modified into SM-2 Block IIIB configurations at a rate which will provide a constant workload. The modified sections will then be sent to the contraction All-Up-Round (AUR) facility for integration into the round. SLEP Mods (Starting in FY 98) will be incorporated concurrently.

(\$ in Millions)

Contract Date	Prior Year r	Current Year r	Budget Year r	Budget Year + 1	Budget Year +2	Budget Year +3	Budget Year + 4	Budget Year +5	
SEEKER	3/98	4/99	01/00	01/01	01/02	01/03	01/04		
Target Detectin g	2/99	2/99	03/00	03/01	03/02	03/03	03/04		
Device (TDD)									
SLEP/GC&A	3/98	4/99	01/00	01/01	01/02	01/03	01/04		
MK 125 Warhead	7/98	4/99	04/00	04/01	04/02	04/03	04/04		
MK54 Safe and Arm	12/97	7/99	03/00	03/01	03/02	03/03	03/04		
SLEP MK 104	5/98	3/99	03/00	03/01	03/02	03/03	03/04		

Production Delivery Date	Prior Year r	Current Year r	Budget Year r	Budget Year + 1	Budget Year +2	Budget Year +3	Budget Year + 4	Budget Year +5	
SEEKER	1/00	01/01	12/01	12/02	12/03	12/04	12/05		
Target Detectin g	10/99	09/00	09/01	09/02	09/03	09/04	09/05		
Device (TDD)									
SLEP/GC&A	1/00	12/00	12/01	12/02	12/03	12/04	12/05		
MK 125 Warhead	10/99	09/00	09/01	09/02	09/03	09/04	09/05		
MK54 Safe and Arm	10/99	09/00	09/01	09/02	09/03	09/04	09/05		
SLEP MK 104	10/99	10/00	10/01	10/02	10/03	10/04	10/05		

INSTALLATION SCHEDULE:

	FY 1998	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	27	25	28	29	29	28	27	28	28	15	16	16	16	19	19	19	19	24	24	24	24	22	23	23	23	30	31	31	31	402	1100
Out	6	21	25	28	29	29	28	27	28	28	15	16	16	16	19	19	19	19	24	24	24	24	22	23	23	23	30	31	31	433	1100

P-3A

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 2000					
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles							P-1 ITEM NOMENCLATURE Weapons Industrial Facilities					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY												
COST (In Millions)				\$27.8	\$27.8	\$21.3	\$7.2	\$7.7	\$7.8	\$4.3		
<p>This item provides funding to:</p> <ul style="list-style-type: none"> -Close, deactivate, prepare for disposal, and convey the two Government-owned contractor-operated (GOCO), Naval Weapons Industrial Reserve Plants (NWIRPs) under the cognizance of NAVAIR supported by WPN funds. The two facilities are NWIRP, McGregor TX and NWIRP, Toledo OH. Closure and deactivation is being accomplished in accordance with 41 CFR, Chapter 101, <u>Federal Property Management Regulations</u>, and other applicable guidance. Upon completion of divestiture there will no longer be a requirement to funds these facilities. -Accomplish environmental remediation as required by law. Remediation is being accomplished in accordance with Section 120(h) of the <u>Comprehensive Environmental Response, Compensation and Liability Act</u> (CERCLA) and Executive Order 12898, <u>Environmental Justice</u>. CERCLA 120(h) requires assurance of environmental contamination remediation prior to disposal of Government real property. This assurance is provided by following guidance promulgated by ASSTSECNAV (I&E) memo of 22 Dec 1993, <u>Application of BRAC Environmental Procedures to Non-BRAC Identification of Uncontaminated Property and Cleanup of Contaminated Property at Closing Installations</u>. -Develop Environmental Impact Statements (EISs) and conduct Cultural Resource Surveys as required by law. The EISs and Cultural Resource Surveys must be accomplished in accordance with 40 CFR, the <u>National Environmental Policy Act</u> (NEPA) and other applicable guidance. The NEPA process is required for any major Federal action affecting the environment. Application to GOCO divestures was confirmed by NAVAIR Counsel in ltr serial AIR-7.7.4/REC of 3 Apr 95, which based its conclusion on OPNAVINST 5090.1B, the Defense Authorization Acts of 1994 and 1995, and case law. -Dispose of the facilities as required by law. The disposal of NWIRP, McGregor TX is being accomplished in accordance with Section 2868, <u>Land Conveyance, NWIRP, McGregor, TX</u> of Public Law 104-106, <u>National Defense Authorization Act for FY-1996</u>. The mandatory divestiture of NWIRP, Toledo OH will be accomplished in accordance with ASSTSECNAV (RD&A) mem o of 7 July 1995, 41 CFR, Chapter 101, <u>Federal Property Management Regulations</u> and other applicable guidance. -Accomplish explosive decontamination of NWIRP, McGregor TX in accordance with AMCCOMR 385-2, Decontamination and Disposal of Facilities, Equipment and Material and other applicable guidance prior to transfer of the facility to the city of McGregor as required by law. <p>Funding also supports Capital Type Rehabilitation projects at government-owned contractor operated plants for weapons systems such as Sparrow, Sea Sparrow, Hawk, Standard, Sidewinder, VLS and Mark 45 Gun Mounts, Phalanx, and rocket motors. Federal Acquisition Regulation Part 52.245-7 specifies that Facilities Use contracts require that the government fund capital type rehabilitation projects to support and maintain these facilities. These plants have an average age of 45 years and lack of proper maintenance will limit capabilities to maintain scheduled production rates and overall productivity. The following estimates are for capital type rehabilitation areas. Funding is separated to reflect environmental, safety, major repair, energy conservation and facilities restoration.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO. 19

PAGE NO. 1

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET								DATE: February 2000				
P-40												
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles							P-1 ITEM NOMENCLATURE Weapons Industrial Facilities					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY												
COST (In Millions)				\$27.8	\$27.8	\$21.3	\$7.2	\$7.7	\$7.8	\$4.3		
<p>(CONTINUED FROM PAGE 1 of 2)</p> <p>- ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations. These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.</p> <p>- SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations. These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.</p> <p>- MAJOR REPAIR: Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.</p> <p>- ENERGY CONSERVATION: Provides funds to decrease energy consumption by installing new energy efficient systems and provides increased maintenance on these systems. Mandated in 1993 by Congress (Defense Appropriations Committee).</p> <p>- FACILITIES RESTORATION: Provides funds for replacement of Weapons Industrial Facilities that have exceeded their useful life and deteriorated beyond safe operations.</p>												

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000						
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Weapons Industrial Facilities														
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS																
			Prior Years	FY 1999			FY 2000			FY 2001									
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost				
	Capital Type Rehabilitation																		
	Environmental											2,730				1,700			3,670
	Safety											1,050				797			0
	Energy Conservation											426				0			1,221
	Major Repairs											1,050				1,175			0
	Facilities Restoration (ABL)											17,835				20,610			12,898
	Government-Owned Contractor-Operated Facilities Divestiture		71,667																
	NWIRP McGregor											4,648				3,140			3,170
	NWIRP Toledo											50				370			310
			71,667									27,789				27,792			21,269

BUDGET ITEM JUSTIFICATION SHEET								DATE February 2000		
APPROPRIATION/BUDGET ACTIVITY WP,N - BA2 OTHER MISSILES					P-1 ITEM NOMENCLATURE Fleet Satellite Communications Follow-On 2433			SUBHEAD 52EU		
	PY	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TO COMP	TOTAL
QUANTITY										
COST (in millions)				\$170.5						
<p>PROGRAM COVERAGE: The Ultra High Frequency (UHF) Follow-On communications satellite constellation satisfies DoD worldwide UHF communications requirements. The current constellation will be near its design life in 2003. The funding in this line will provide for the procurement of one gapfiller satellite by FY03</p> <p>The availability of the UHF Follow-On (UFO) satellite constellation is expected to dip below 70% by FY03 if no action is taken. The gapfiller satellite (F11) will help mitigate risks and boost the overall availability of the UFO constellation. F11 will be procured as an option to the existing Hughes contract and will be launched in FY03. The current level of funding provides for UHF payload with a new, more capable digital receiver (new receiver necessary due to parts obsolescence).</p> <p>JUSTIFICATION OF BUDGET YEAR REQUIREMENTS: Funding in FY01 will procure a gapfiller satellite, for launch in FY03, to fill the void until a new satellite constellation can be put in place. The impact of not procuring the satellite is a steadily decreasing availability of UHF satellite communications. Since the demand for UHF communications already exceeds the availability, the reduction of such service will result in an unacceptable tactical operations scenario.</p> <p>FY01 funding of \$170.5 M provides for F11 satellite including launch services.</p>										

**UNCLASSIFIED
CLASSIFICATION**

COST ANALYSIS										DATE February 2000			
APPROPRIATION ACTIVITY WP,N - BA-2 OTHER MISSILES				P-1 ITEM NOMENCLATURE Fleet Satellite Communications Follow-On 2433						SUBHEAD 52EU			
COST CODE	ELEMENT OF COST	ID CODE	TOTAL COST IN THOUSANDS OF DOLLARS										
			QTY	PY	FY 1999		FY 2000			FY 2001			
				TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
4200	F-11 Satellite										1	94,237	94,237
4300	Launch Services												75,000
4400	Production Support												1,300
TOTAL CONTROL													170,537
Remarks:													

DD FORM 2446, JUN 86

UNCLASSIFIED
CLASSIFICATION

PROCUREMENT HISTORY AND PLANNING											A. DATE	
B. APPROPRIATION/BUDGET ACTIVITY											February 2000	
WP,N - BA2 OTHER MISSILES						C. P-1 ITEM NOMENCLATURE					SUBHEAD	
						Fleet Satellite Communications Follow-On 2433					52EU	
COST CODE	ELEMENT OF COST	FY	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	LOCATION OF PCO	RFP ISSUE DATE	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
4200	F-11 Satellite	01	Hughes, El Segundo, CA	SS/FFP	SPAWAR	Aug-98	Oct-00	Sep-03	1	94,237	Yes	N/A
D. REMARKS												

DD FORM 2446, JUN 87

BUDGET ITEM JUSTIFICATION SHEET	DATE February 2000
--	--------------------

APPROPRIATION/BUDGET ACTIVITY WP,N - BA2 OTHER MISSILES						P-1 ITEM NOMENCLATURE Fleet Satellite Communications Follow-On (Advance Procurement) 2433				SUBHEAD 52EU
	PY	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	TO COMP	TOTAL
QUANTITY										
COST (in millions)			\$9.8							

PROGRAM COVERAGE: The Ultra High Frequency (UHF) Follow-On communications satellite constellation satisfies DoD worldwide UHF communications requirements. The current constellation will be near its design life in 2003. The funding in this line will provide for the procurement of long lead time material (LLTM) for a gapfiller satellite (F11) to be launched in FY03. The availability of the UHF Follow-On (UFO) satellite constellation is expected to dip below 70% by FY03 if no action is taken. The gapfiller satellite (F11) will help mitigate risks and boost the overall availability of the UFO constellation. F11 will be procured as an option to the existing Hughes contrac and will be launched in FY03.

JUSTIFICATION OF BUDGET YEAR REQUIREMENTS: Funding in FY00 will procure LLTM for a gapfiller satellite, for launch in FY03, to fill the void until a new satellite constellation can be put in place. The impact of not procuring the satellite is a steadily decreasing availability of UHF satellite communications. Since the demand for UHF communications already exceeds the availability, the reduction of such service will result in an unacceptable tactical operations scenario.

FY00 funding of \$9.8M provides for F11 long lead time material procurement.

**UNCLASSIFIED
CLASSIFICATION**

COST ANALYSIS											DATE February 2000			
APPROPRIATION ACTIVITY WP,N - BA-2 OTHER MISSILES			P-1 ITEM NOMENCLATURE Fleet Satellite Communications Follow-On (Advance Procurement) 2433								SUBHEAD 52EU			
COST CODE	ELEMENT OF COST	ID CODE	TOTAL COST IN THOUSANDS OF DOLLARS											
			PY		FY 1999		FY 2000			FY 2001				
			QTY	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	
4100	Long Lead Time Material										9,600			
4400	Production Support										154			
	TOTAL CONTROL										9,754			
Remarks:														

DD FORM 2446, JUN 86

Exhibit P-10, Advance Procurement Requirements Analysis (Page 1 - Funding)							Date: February 2000							
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number WP/N/BA2/ /243300							P-1 Line Item Nomenclature Fleet Satellite Communications Follow-On (Advance Procurement)							
Weapon System F-11 SATELLITE				First System (BY1) Award and Completion Date NOV 99/SEP 03				Interval between Systems N/A						
(\$ in Millions)														
	PLT	When Rqd	Prior Years	PY-1	PY	1999	2000	2001	2002	2003	2004	2005	To Complete	Total
End Item Qty 1	48							94.0						94.0
CFE *														
Master Oscillator Group		13					1.0							
UHF Antenna		13					1.6							
EHF Component		13					1.8							
Propulsion Components (Tank)		15					0.6							
Thrusters		15					1.2							
Earth Sensor		13					2.7							
Momentum Wheels							0.7							
Term Liab														
Other							0.2							
Total AP							9.8*							
<p>Description:</p> <p>*The items highlighted are components of major substructures of the end item. These substructures are required to be completed before integration in end item.</p> <p>** The Long Lead Time Material (LLTM) was generated in accordance with the Armed Services Pricing Manual (ASPM). Specific sources of data included: historical advanced economic order quantity (AEOQ) cost for flight 1 spacecraft (adjusted for 00 future value); historical material cost for flight 3 (F-10) which was procured without AEOQ; actual cost incurred from previous related procurements and cost models utilized by the prime contractor.</p> <p>Items listed above under CFE were designated LLTM due their significant longer leadtimes than other components of the end item, their unique special order status and their existence on the program schedule's critical path. Since many of these items are also major subcontract items, the contract and negotiation process also injected schedule uncertainty in these critical path items. All cost estimates are in FY00 dollars. Other is for production and material management support.</p>														

Exhibit P-10, Advance Procurement Requirements Analysis (Page 2 - Budget Justification)								Date: February 2000			
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number WP/N/BA2/ /243300						Weapon System F-11 SATELLITE		P-1 Line Item Nomenclature Fleet Satellite Communications Follow-On (AP)			
(TOA, \$ in Millions)											
	PLT	QPA	Unit Cost	BY1 QTY*	BY1 Contract Forecast Date	BY1 Total Cost Request	BY2 QTY*	BY2 Contract Forecast Date	BY2 Total Cost Request		
End Item	48	N/A				N/A	1	Oct-00	96.0		
CFE											
Master Oscillator Group	12	1	1.0	1	Nov-99	1.0	N/A	N/A			
UHF Antenna	10	2	0.8	2	Nov-99	1.6	N/A	N/A			
EHF Component	10	1	1.8	1	Nov-99	1.8	N/A	N/A			
Propulsion Components (Tank)	14	6	0.1	6	Nov-99	0.6	N/A	N/A			
Thrusters	13	12	0.1	12	Nov-99	1.2	N/A	N/A			
Earth Sensor	13	1	2.7	1	Nov-99	2.7	N/A	N/A			
Momentum Wheels	12	2	0.4	2	Nov-99	0.7	N/A	N/A			
Term Liability Other											
Other						0.2					
Total AP						9.8					
<p>Description:</p> <p>The total LLTM cost of \$9.8M is estimated as described on Page 1 of Exhibit P-10. Termination liability is not applicable because LLTM items are fully funded.</p>											

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET										DATE:			
P-40										February 2000			
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY BA-2: Other Missiles								P-1 ITEM NOMENCLATURE/LINE ITEM # Ordnance Support Equipment - BLI #250000					
Program Element for Code B Items:								OTHER RELATED PROGRM ELEMENTS					
	Prior Years	ID Code			FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													0
EQUIPMENT COST (In Millions)	N/A				\$6.2	\$4.1	\$2.7	\$4.3	\$5.5	\$5.7	\$5.8		\$34.3
SPARES COST (In Millions)													0
PROGRAM DESCRIPTION/JUSTIFICATION:													
No justification materials are submitted in this backup book due to security considerations.													
					<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>		
Funding Totals					\$6,190	\$4,110	\$2,723	\$4,278	\$5,536	\$5,667	\$5,780		

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

**BUDGET ITEM JUSTIFICATION SHEET
P-40**

**DATE:
February 2000**

APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/Torpedoes & Related Equipment, BA-3							P-1 ITEM NOMENCLATURE ASW TARGETS LI#314100					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QTY MODS MK-39/1	N/A	A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
QTY MODS MK-30/2	N/A	B		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COST (\$M)	\$0.0			\$4.1	\$2.0	\$3.2	\$14.1	\$13.7	\$25.7	\$26.3	Cont.	Cont.
Initial Spares (\$M)	\$0.0			\$0.0	\$0.0	\$0.5	\$0.5	\$0.7	\$0.7	\$0.8	Cont.	Cont.
TOTAL (\$M)	\$0.0			\$4.1	\$2.0	\$3.7	\$14.6	\$14.4	\$26.4	\$27.1	Cont.	Cont.
Unit Cost (\$M)												

ITEM DESCRIPTION/JUSTIFICATION:

This line item funds for FY 2001 through FY2005 include two distinct systems : (a) MK 39 Mod 1 (Cost Codes TG002, TG832, TG842, TG852, TG862 and TG902) and (b) MK30 Mod 2 (Cost Codes TG005, TG015, TG835, TG865 and TG905). Both systems contain Cost Code TG900.

The MK 39 Mod 1 Expendable Mobile ASW Training Target (EMATT) is a small self-propelled underwater vehicle launchable from fixed wing and rotary wing ASW aircraft and ASW surface ships for the purpose of providing basic, open ocean sonar training and MK 46, MK 48, ADCAP and MK 50 placement exercises. Its operation consist of a three hour dynamic run trajectory that is actively controlled in depth and course with pre-programmable run maneuvers and is capable of generating a magnetic field (anomaly) detectable by all current Navy Magnetic Anomaly Detectors (MAD).

The MK 30 Mod 2 is the next generation fleet ASW training target for training the Navy surface ship, submarines and aircraft that will be capable of simulating the Russian and Rest of the World (ROW) submarine threats anticipated in the twenty-first century littoral warfare environment. Replacing the aging MK 30 Mod 1 target, MK 30 Mod 2 will be a highly reliable and maintainable unmanned undersea vehicle simulating the dynamics, acoustics and magnetic signature of submarines and act as a target for ASW sensors and torpedoes to detect, classify, track and pursue in a realistic training environment. WPN funding will commence FY01 with the purchase of batteries and towed arrays, and efforts to convert the Engineering Development Models into production units, and minor field activity support.

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3: Torpedo and Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD ASW Targets/C3TG									
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			Prior Years	FY 1999			FY 2000			FY 2001				
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
	MK39 Mod 1 - EMATT							\$4,085			\$1,989			\$2,016
	MK30 Mod 2						\$0			\$0				\$1,164
								\$4,085			1,989			3,180

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3: Torpedo and Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD ASW Targets - EMATT/C3TG										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 1999			FY 2000			FY 2001					
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
TG002	N86 MK39 Mod 1 - EMATT (N86)			1,000	2.92	2,921	500	2.69	1,343	500	2.71	1,355			
TG832	Prod Eng (In-house) (N86)					768			481			489			
TG842	Quality Assurance (N86)					145			45			45			
TG862	Acceptance T & E (N86)					140			55			50			
TG902	Consulting Services (N86)					111			65			77			
								4,085			1,989			2,016	

DD FORM 2446, JUN 86

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO.

PAGE NO.

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				A. DATE	
Weapons Procurement, Navy BA-3: Torpedo and Related Equipment					ASW Targets - EMATT				February 2000	
									SUBHEAD	
									C3TG	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY1999 MK39 Mod 1 - EMATT/ECPs	1000	2.449	NAVSEA	N/A	C/FFP-Option	Sippican, Inc. Marion, MA	Jun-99	May-00	Yes	No
FY2000 MK39 Mod 1 - EMATT/ECPs	500	2.686	NAVSEA	N/A	C/FFP-Option	Sippican, Inc. Marion, MA	Feb-00	June-01	Yes	No
FY2001 MK39 Mod 1 - EMATT/ECPs	500	2.709	NAVSEA	N/A	C/FFP-Option	Sippican, Inc. Marion, MA	Nov-00	Mar-02	Yes	No
D. REMARKS										

CLASSIFICATION:

UNCLASSIFIED

B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Weapons Procurement, Navy BA-3:Torpedo and Related Equipment					ASW Targets - Mod 2				C3TG	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY2001 TG005/MK30 Mod 2	2	\$432	NAVSEA	Jan-00	C/FFP	Raytheon Portsmouth, RI	Oct-00	Sep-01	Yes	NA
D. REMARKS										
FY01 costs are retrofit kits for EDM vehicles.										

FY 2000/01 BUDGET PRODUCTION SCHEDULE, P-21						DATE		February 2000																								
APPROPRIATION/BUDGET ACTIVITY: Weapons Procurement, Navy						Weapon System		P-1 ITEM NOMENCLATURE																								
BA-3: Torpedo and Related Equipment								ASW Targets - EMATT/C3TG																								
		Production Rate			Procurement Leadtimes																											
Item	Manufacturer's Name and Location		MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																					
ASW Targets - MK39 Mod1	Sippican, Inc.		40	250	500	0	10	14	11	35																						
	Marion, MA																															
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1998						FISCAL YEAR 1999						B A L													
							1997						CALENDAR YEAR 1998						CALENDAR YEAR 1999													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
MK39 Mod1/ Sippican, Inc.		1997		1000	0	1000																										612
MK39 Mod1/ Sippican, Inc.		1999		1000	0	1000																										1000
MK39 Mod1/ Sippican, Inc.		2000		500	0	500																										500
MK39 Mod1/ Sippican, Inc.		2001		500	0	500																										500
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2000						FISCAL YEAR 2001						B A L													
							1999						CALENDAR YEAR 2000						CALENDAR YEAR 2001													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
MK39 Mod1/ Sippican, Inc.		1997		1000	388	612																										0
MK39 Mod1/ Sippican, Inc.		1999		1000	0	1000																										0
MK39 Mod1/ Sippican, Inc.		2000		500	0	500																										333
MK39 Mod1/ Sippican, Inc.		2001		500	0	500																										500
Remarks:																																

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-20, Requirements Study			APPROPRIATION/BUDGET ACTIVITY				DATE:	
			Weapons Procurement, Navy		BA-3: Torpedo and related Equip		February 2000	
P-1 ITEM NOMENCLATURE			Admin Leadtime (after Oct1): 4			Prod Leadtime : 10		
ASW Targets - EMATT								
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Buy Summary	0	1000	500	500	500	500	500	500
Unit Cost (\$K)	0.0	2.4	2.7	2.7	2.7	2.7	3.0	3.1
Total Cost (\$K)	\$0.0	\$2,449.0	\$1,343.0	\$1,354.5	\$1,360.0	\$1,364.0	\$1,509.0	\$1,526.0
Asset Dynamics								
Beginning Asset Position	4434	5431	4501	4403	3802	3042	2282	1522
Deliveries from all prior year funding	2135	353	612	0	0	0	0	0
Deliveries from FY 1999 funding	0	0	600	400	0	0	0	0
Deliveries from FY 2000 funding	0	0	0	334	166	0	0	0
Deliveries from FY 2001 funding	0	0	0	0	334	166	0	0
Deliveries from subsequent years' funding	0	0	0	0	0	334	500	500
Other Gains	0	0	0	0	0	0	0	0
Combat Losses/Usage	0	0	0	0	0	0	0	0
Training Losses/Usage	1038	1150	1150	1150	1150	1150	1150	1150
Test Losses/Usage	75	90	90	90	90	90	90	90
Other Losses/Usage	25	20	20	20	20	20	20	20
Disposals/Retirements/Attritions/etc.	0	23	50	75	0	0	0	0
End of Year Asset Position	5431	4501	4403	3802	3042	2282	1522	762
Inventory Objective or Current Authorized Allowance	1999	1300	3477	3477	3477	3477	3477	3477
Inventory Objective	Actual Training Expenditures	Other than Training Usage	Disposals (Vehicles/Other)	Vehicles Eligible for FY 2000 Replacement:	Aircraft: TOAI:	n/a		
Assets Rqd For Combat Loads: 885	FY 1999 thru 31-May-1999: 530	FY 1999 thru 31-May-1999: 86	FY 1999 thru 31-May-1999:	Vehicles Eligible for FY 2001 Replacement:	PAA: TAI	n/a		
WRM Rqmt:	FY 1998: 1038	FY 1998: 120	FY 1998: 0	Vehicle Augment:	Attrition Res:	0		
Pipeline: 500	FY 1997: 705	FY 1997: 120	FY 1997: 0		BAI	0		
Other: 415	FY 1996: 771	FY 1996: 100	FY 1996: 0		Inactive Inv:	0		
TOTAL: 1800	3044	426			Storage:	0		
Remarks:								

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

Exhibit P-20, Requirements Study			APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3: Torpedo and related Equip				DATE: February 2000	
P-1 ITEM NOMENCLATURE ASW Targets - MK 30 MOD 2		Admin Leadtime (after Oct1): 1			Prod Leadtime : 18			
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Buy Summary	0	0	0	2	3	3	9	9
Unit Cost (\$K)	0.0	0.0	0.0	432.0	2834.0	2791.0	2319.0	2298.0
Total Cost (\$K)	\$0.0	\$0.0	\$0.0	\$864.0	\$8,502.0	\$8,373.0	\$20,871.0	\$20,682.0
Asset Dynamics								
Beginning Asset Position	0	0	0	0	2	2	5	8
Deliveries from all prior year funding	0	0	0	0	0	0	0	0
Deliveries from FY 1999 funding	0	0	0	0	0	0	0	0
Deliveries from FY 2000 funding	0	0	0	0	0	0	0	0
Deliveries from FY 2001 funding	0	0	0	2	0	0	0	0
Deliveries from subsequent years' funding	0	0	0	0	0	3	3	9
Other Gains	0	0	0	0	0	0	0	0
Combat Losses/Usage	0	0	0	0	0	0	0	0
Training Losses/Usage	0	0	0	0	0	0	0	0
Test Losses/Usage	0	0	0	0	0	0	0	0
Other Losses/Usage	0	0	0	0	0	0	0	0
Disposals/Retirements/Attritions/etc.	0	0	0	0	0	0	0	0
End of Year Asset Position	0	0	0	2	2	5	8	17
Inventory Objective or Current Authorized Allowance	58	58	58	58	58	58	58	58
Inventory Objective	Actual Training Expenditures	Other than Training Usage	Disposals (Vehicles/Other)		Vehicles Eligible for FY 2000 Replacement:	Aircraft: TOAI: n/a		
Assets Rqd For Combat Loads: 58	FY 1998 thru 31-May-1998: 0	FY 1998 thru 31-May-1998: 0	FY 1998 thru 31-May-1998:		Vehicles Eligible for FY 2001 Replacement:	PAA: TAI n/a		
WRM Rqmt: 0	FY 1997: 0	FY 1997: 0	FY 1997: 0		Vehicle Augment:	Attrition Res: 0		
Pipeline: 0	FY 1996: 0	FY 1996: 0	FY 1996: 0			BAI: 0		
Other: 0	FY 1995: 0	FY 1995: 0	FY 1995: 0			Inactive Inv: 0		
TOTAL: 58	0	0				Storage: 0		
Remarks: MK30 Mod 2 will replace the MD30 Mod 1 beginning in FY02. FY01 costs are retrofit kits for 2 EDM vehicles.								

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											February 2000	
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE					
Weapons Procurement, Navy/ Torpedoes & Related Equipment, BA-3							Torpedo MK46 Mods/MK54 Mod 0, C3F5, LI# 321500					
Program Element for Code B Items:							Other Related Program Elements					
0204228N							0604610N Lightweight Torpedo Development					
	Prior Years	ID Code		FY 1999	FY 2000*	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total** Program
QUANTITY		B		0	17	0	25	34	40	41	843	1,000
COST (\$M)				\$0.015	\$28.6	\$7.1	\$27.4	\$34.4	\$37.1	\$38.7	\$741.813	\$915.2
Initial Spares (\$M)				\$0.8	\$0.8	\$1.2	\$1.2	\$2.4	\$3.3	\$3.2		
<p>ITEM DESCRIPTION/JUSTIFICATION:</p> <p>The MK46 is an in-service lightweight torpedo designed for launch from surface vessel torpedo tubes, VLA, and fixed/rotary wing aircraft. FY00 completes introduction of the SLEP variant MK46 Mod 5A(SW). The Lightweight Hybrid Torpedo (LHT) MK54 Mod 0, is a modular evolution building from the MK46 and MK50 torpedo. It is comprised of the MK50 sonar, MK46 warhead and propulsion system and new COTS processors which will use tactical software derived from MK50 and MK48 ADCAP. The LHT will provide improved performance against diesel electric submarine threats operating in shallow water. The LHT LRIP contract was awarded in Dec 99 to Raytheon Systems Company.</p> <p>The total Lightweight torpedo inventory is composed of a mix of MK46 5A(s), MK46 5A(SW), MK50, and MK54.</p> <p>* FY00 Total Control includes \$1.6M for SLEP Kits assembly completion.</p> <p>** FY97 was the last year in which SLEP kits were procured. FY98-FY99 reflect kit assembly and engineering support. The LHT Funding Totals above reflect funding from FY00 and out, with the exception of \$1.6M in FY00 for the completion of SLEP Kit assembly.</p> <p>Performance Spec Milestone: June 1996</p> <p>Technical Data Package: April 2001</p> <p>DTE: July 1999-July 2001</p> <p>OPEVAL: November 2001-April 2002</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000				
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/ Torpedoes & Related Equipment, BA-3				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Torpedo MK46 Mods/MK54 /Mod 0, C3F5, LI# 321500												
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS														
			Prior Years	FY 1999			FY 2000 *			FY 2001							
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
F5103	SLEP (FY00 Assembly)	A					0	0	0	0		1,561	0		0		
F5104	Hardware Unit Cost	B					0	0	0	17	743	12,636	0	0	1063**		
F5105	Fleet Exercise Systems								0			1,099			0		
F5106	MK54 Platform Integration								0			884			0		
F5107	MK54/VLA Flight & Integration								0			1,000			1,000		
F5003	Support Equipment								0			3,853			1,160		
F5830	Production Engineering-In-house								0			2,175			2,448		
F5860	Accept. Test & Evaluation								0			5,036			1,000		
F5900	Production Engineering-Contractor								15			349			470		
									15				28,593				7,141

DD FORM 2446, JUN 86

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO.

24

PAGE NO. 2

*FY00 F5103 \$1.6M represents funding required for assembly of SLEP kits previously procured (FY96-FY97).

** No LHT procurement in FY01. Funding for TI and engineering services.

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				A. DATE	
Weapons Procurement, Navy					Torpedo MK46 Mods/MK54 Mod 0, C3F5, LI# 321500				February 2000	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
MK 54 Mod 0/ 2000	17	743	NAVSEA	Nov-99	SS/FP	Raytheon	Dec-99	Apr-01		
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: MK46 SLEP TYPE MODIFICATION: _____ MODIFICATION TITLE: Bottom Avoidance/CCM Shallow Water/AFT Seal (F5103)

DESCRIPTION/JUSTIFICATION:

The Counter-Counter Measure (CCM) Shallow Water modification modifies algorithms and PWBs in the control group of the MK46 torpedo to improve performance against counter-measures in a shallow water environment. The Aft Seal modification provides an improved seal on the drive shaft of the MK46 torpedo to prevent water entry. The Bottom Avoidance modification provides search depth setting limitations on the MK46 torpedo to provide bottom avoidance in shallow water environments.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: _____

	FY 1997 & Prior		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		IC	TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
<u>FINANCIAL PLAN (IN MILLIONS)</u>																						
<u>RDT&E</u>																					0	0
<u>PROCUREMENT</u>																						
INSTALLATION KITS	1148	17843	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			1148	17843
INSTALLATION KITS - UNIT COST																						
INSTALLATION KITS NONRECURRING																						0
EQUIPMENT																						0
EQUIPMENT NONRECURRING																						0
ENGINEERING CHANGE ORDERS																						0
DATA																						0
TRAINING EQUIPMENT																						0
SUPPORT EQUIPMENT																						0
OTHER		16390		236		0		0														16626
OTHER																						0
OTHER																						0
INTERIM CONTRACTOR SUPPORT		990		30		15		0														1035
INSTALL COST *								1561														1561
TOTAL PROCUREMENT		35223		266		15		1561		0		0		0		0		0				37065

*FY2000 Install Cost reflects \$1.6M SLEP Assembly allocation resulting from PBD 752 Readiness Enhancement plus up.

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: MK54 Mod 0 TYPE MODIFICATION: _____ MODIFICATION TITLE: Hybrid Hardware (F5104)

DESCRIPTION/JUSTIFICATION:

The Lightweight Hybrid Torpedo (LHT) is a modular upgrade, designed to take advantage of the current USN investments in hardware and technology by utilizing components from the MK46 & MK50 Torpedoes, as well as commercial-off-the-shelf (COTS) processor components with open systems architecture. In addition, it will integrate software improvements gained from the MK50 Shallow Water Performance Program.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Development testing began 4th qtr FY99, OPEVAL complete 3rd qtr FY02

	<u>FY 1997 & Prior</u>		<u>FY 1998</u>		<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>		<u>FY 2004</u>		<u>FY 2005</u>		<u>IC</u>	<u>TOTAL</u>		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$		
<u>FINANCIAL PLAN (IN MILLIONS)</u>																						
<u>RDT&E</u>		48806		13824		8952		9245		9347		8772		4014		3664		1668		0	108292	
<u>PROCUREMENT</u>																						
INSTALLATION KITS							17	12636	0	933	25	17440	34	23976	40	27602	41	29157	843	579390	1000	691134
INSTALLATION KITS - UNIT COST								743		0		698		705		690		711				
INSTALLATION KITS NONRECURRING																						0
EQUIPMENT																						0
EQUIPMENT NONRECURRING								1099		0		1452		2102		0		0		0		4653
ENGINEERING CHANGE ORDERS																						0
DATA																						0
TRAINING EQUIPMENT																						0
SUPPORT EQUIPMENT								3853		1160		310		307		310		321		2610		8870
OTHER								7211		3448		6058		6932		7439		7608		138419		177116
OTHER NONRECURRING*								1884		1000		1000		0		0		0		0		3884
OTHER																						0
INTERIM CONTRACTOR SUPPORT								349		470		1073		1095		1118		1141		11568		16815
INSTALL COST								0	12	130	5	53	0	0	59	655	40	453	884	11402	1000	12692
TOTAL PROCUREMENT		0		0		0		27032		7141		27387		34411		37124		38680		743389		915164

P-1 SHOPPING LIST

CLASSIFICATION: **UNCLASSIFIED**

ITEM NO. 24 PAGE NO. 6

* OTHER NONRECURRING reflects FY2000 MK54 Platform Integration and MK54/VLA Flight Integration efforts, as identified on P-5 exhibit.

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: MK54 Mod 0 MODIFICATION TITLE: HYBRID Hardware (F5104)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: **Firm Fixed Price Contract-Contractor TBD**

ADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 20 Months

CONTRACT DATES: FY 1999: FY 2000: Dec-99 FY 2001:

DELIVERY DATE: FY 1999: FY 2000: Apr-01 FY 2001:

(\$ in Millions)

Cost:	Prior Years		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS				0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0			0	0.0	
FY 1998 EQUIPMENT				0.0		0.0		0.0		0.0					0.0		0.0				0	0.0	
FY 1999 EQUIPMENT																					0	0.0	
FY 2000 EQUIPMENT								12	130	5	53										17	183.2	
FY 2001 EQUIPMENT																					0	0.0	
FY 2002 EQUIPMENT														25	278						25	277.5	
FY 2003 EQUIPMENT														34	377						34	377.5	
FY 2004 EQUIPMENT																40	453				40	452.5	
FY 2005 EQUIPMENT																				41	529	41	528.8
TO COMPLETE																				843	10873	843	10873.0

INSTALLATION SCHEDULE:

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL	
		1	2	3	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
In	0	0	0	0	0	0	0	0	0	0	0	6	6	5	0	0	0	0	0	0	0	0	20	5	20	14	0	0	20	20	884	1000
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	5	0	0	0	0	0	0	0	0	20	5	10	24	0	0	924	1000

P-3A

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET

P-40

DATE:

February 2000

APPROPRIATION/BUDGET ACTIVITY

Weapons Procurement, Navy/BA-3 Torpedo and Related Equipment

P-1 ITEM NOMENCLATURE

MK 48 ADCAP MODS Torpedo BLI: 322500 SBHD: C3D1

Program Element for Code B Items:

0204284N

Other Related Program Elements

	ID Code	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY MODS	A	111	83	67	84	85	64	53	86	\$633.0
QUANTITY CBASS	B	0	0	0	0	18	64	71	971	\$1,124.0
COST (\$M)		\$48.9	\$45.1	\$38.9	\$46.6	\$60.1	\$59.4	\$70.9	\$443.1	\$813.0
Initial Spares (\$M)		\$3.2	\$3.0	\$2.8	\$3.1	\$3.5	\$4.3	\$5.1	\$29.0	\$54.0

ITEM DESCRIPTION/JUSTIFICATION:

This line item procures Modification Kits for the MK48 ADCAP Torpedo. The MK48 ADCAP MODS program incorporates both a Guidance and Control (G&C) modification and a Torpedo Propulsion Upgrade (TPU) modification to the baseline ADCAP system.

The G&C Modification addresses the need to increase memory and processing capacity of the G&C hardware and to replace obsolete and sunset technology electronic component parts. The increased capacity is required for future advanced signal processing techniques that will be needed for performance upgrades in shallow water target detection/classification. The TPU addresses the Navy's operational requirement for a quieter ADCAP torpedo. These modifications will allow the MK48 ADCAP torpedo to operate effectively in adverse environments, thus enabling the MK48 ADCAP torpedo to counter enemy submarine threats into the 21st century.

The Common Broadband Advanced Sonar System (CBASS), starting in FY03 with the purchase of 18 LRIP units, will incorporate into the ADCAP MODs torpedo a new wide band sonar system and software algorithms. These new elements will provide the capability to transmit and receive over a wide frequency band to take advantage of broadband signal processing techniques. These improvements are necessary to overcome current and future improvements in advanced threat countermeasures capabilities.

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD MK 48 ADCAP MODS Torpedo BLI: 322500 SBHD: C3D1										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 1998			FY 1999			FY 2000			FY 2001		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
D1001	<u>ADCAP MODS</u>	A					111	195	21,591	83	277	22,988	67	240	16,086
D1003	<u>Support and Ancillary Equipment</u>								2,717			2,307			2,719
D1830	<u>Production Engineering (Contractor and In House)</u>								12,366			8,650			10,516
D1860	<u>Acceptance T&E (Contractor and In House)</u>								12,223			11,143			9,605
			0			0			48,897			45,088			38,926

UNCLASSIFIED

CLASSIFICATION:

WEAPONS SYSTEM COST ANALYSIS P-5					Weapon System					DATE: February 2000								
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Related Equipment					ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD MK 48 ADCAP MODS Torpedo BLI: 322500 SBHD: C3D1												
COST CODE	ELEMENT OF COST	FY 2002			FY 2003			FY 2004			FY 2005			To Complete		Total		
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Cost	Quantity	Cost	
D1001	<u>ADCAP MODS</u> <u>CBASS</u>	84	259	21,792	85	223	18,951	64	251	16,077	53	296	15,686					
					18	314	5,652	64	208	13,312	71	255	18,121					
D1003	<u>Support and Ancillary Equipment</u>			2,977			8,688			3,546			4,316					
D1830	<u>Production Engineering</u> <u>(Contractor and In House)</u>			10,729			11,461			12,033			17,488					
D1860	<u>Acceptance T&E</u> <u>(Contractor In House)</u>			11,096			15,355			14,414			15,371					
				46,594				60,107				59,382				70,982		

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System	A. DATE February 2000
---	---------------	---------------------------------

B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Related Equipment	C. P-1 ITEM NOMENCLATURE MK 48 ADCAP MODS Torpedo BLI: 322500	SUBHEAD C3D1
--	--	-------------------------------

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY99 MK48 MOD6	111	195	NAVSEA	June 1999	C/FP	Raytheon, Mukilteo, WA	08/99	07/01		
FY00 MK48 MOD6	83	277	NAVSEA	January, 2000	C/FP	TBD	03/00	03/02		
FY01 MK48 MOD6	67	240	NAVSEA	November, 2000	C/FP	TBD	01/01	01/03		

D. REMARKS
Unit cost above includes install cost from prior year buys.

CLASSIFICATION:

UNCLASSIFIED

**BUDGET ITEM JUSTIFICATION SHEET
P-40**

**DATE:
February 2000**

APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3: Torpedoes and Related Equipment	P-1 ITEM NOMENCLATURE QUICKSTRIKE/323100/73QS
--	--

Program Element for Code B Items:	Other Related Program Elements
-----------------------------------	--------------------------------

	Prior Years	ID Code		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY												
COST (\$M)	N/A	A		\$0.0	\$0.0	\$2.0	\$3.9	\$3.3	\$3.2	\$3.2	CONT.	CONT.
Initial Spares (\$M)	N/A	A		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

PROGRAM DESCRIPTION/JUSTIFICATION:

The QUICKSTRIKE family of mines consists of the MK-62 and MK-63 (500 lb. and 1000 lb. Mines) based on MK-82 and MK-83 general purpose bombs respectively, and the MK-65 (2000 lb.) mine. The Mod 0, 1, and 3 variants utilize various target detection devices (TDD). QUICKSTRIKE Mod 3 utilizes a newly developed TDD, MK-71. The MK-71 is a software-programmable device that is capable of being programmed to optimize detection of new threats. The QS Mod 3 Kit will consist of TDD MK-71, MK-75 Mod 1 safe/arming device, and various adapters and batteries (for each mine type). Additional support hardware include Test Sets MK-649 and 650, and Presetter MK-11.

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											February 2000	
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE					
Weapons Procurement, Navy/BA-3 Torpedo and Related Equipment							Torpedo Support Equipment BLI: 330100 SBHD: C3F8					
Program Element for Code B Items:							Other Related Program Elements					
		ID Code		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY												
COST (\$M)				\$23.9	\$23.3	\$23.7	\$22.7	\$26.5	\$25.9	\$26.4	CONT.	CONT.
Initial Spares (\$M)												
<p>The Torpedo Support Equipment account procures various torpedo components required to ready weapons for Surface Ships, Sub-Surface, Fixed Wing, and Rotary to achieve and maintain a readiness posture sufficient to counter the enemy sub-surface threat. The objective of this line is to provide the Fleet with ready exercise weapons for conducting training maneuvers which involve actually firing the torpedoes, and to maintain warshot inventories in an operational ready-for-issue status in support of combat ready deployment by anti-submarine warfare forces. After a torpedo is fired during a training exercise it is recovered and all expendable components such as batteries, cables, igniters (as well as various accessories required for air-launched torpedoes), must be replaced. These items as well as components such as exercise heads, fuel tanks, and exhaust valves which may be used more than onetime, but which are worn out or lost in service, are procured each fiscal year in quantities dependent upon the Fleet training requirements and tempo of operations. The torpedoes requiring support are the MK46 Mod 5A(S), MK46 Mod 5A(SW), MK 48 Mod 4, 5, and 6, MK 50 and their associated Support and Test Equipment (S&TE). This equipment includes the following: lead droppers, seawater batteries, pressure cylinders, REXTORP kits, sway brace pads, suspension bands, thermal batteries, boiler assemblies, stop squibs, shutdown valves, gas injection assemblies, tailnuts, air stabilizers, wire coils, flex hoses, otto fuel, igniters, propellant, umbilical cables, and containers. In addition to components procurement, this account provides for production support and test/evaluation for these components and procurement of product improvement hardware and related equipment.</p>												

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000				
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Other Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Torpedo Support Equipment BLI: 330100 SBHD: C3F8												
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS														
			Prior Years	FY 1998			FY 1999			FY 2000			FY 2001				
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
	PEO (UNDERSEA WARFARE)																
	Lightweight Support Equipment							6,110				6,296					7,296
	MK 48/ADCAP Support Equipment							17,806				16,968					16,444
							0										23,916
																	23,264
																	23,740

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System								DATE: February 2000					
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Other Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Torpedo Support Equipment BLI: 330100 SBHD: C3F8												
COST CODE	ELEMENT OF COST	FY 2002			FY 2003			FY 2004			FY 2005			To Complete		Total	
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Cost	Quantity	Cost
	PEO (UNDERSEA WARFARE)																
	Lightweight Support Equipment			6,196			6,266			6,387			6,523				
	MK 48/ADCAP Support Equipment			16,464			20,271			19,564			19,889				
				22,660			26,537			25,951			26,412				

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Other Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Torpedo Support Equipment BLI: 330100 SBHD: C3F8										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 1998			FY 1999			FY 2000			FY 2001		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
F8001	Lightweight Support Equipment								2,590			2,400			1,767
F8002	Other Equipment Investment								2,049			2,499			3,752
F8830	Production Engineering - In House								919			897			901
F8840	Quality Assurance								156			186			198
F8850	Product Improvement								0			0			0
F8860	Acceptance T & E								224			145			506
F8900	Production Engineering - Contractor								172			169			172
									0			6,110			6,296
															7,296

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS				Weapon System								DATE:					
P-5												February 2000					
APPROPRIATION/BUDGET ACTIVITY				ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD											
Weapons Procurement, Navy						Torpedo Support Equipment BLI: 330100 SBHD: C3F8											
BA-3 Torpedo and Other Related Equipment																	
COST CODE	ELEMENT OF COST	FY 2002			FY 2003			FY 2004			FY 2005			To Complete		Total	
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Cost	Quantity	Cost
F8001	<u>Lightweight Support Equipment</u>			1870			1,847			1,433			1,463				
F8002	<u>Other Equipment Investment</u>			2771			2,784			3,013			3,141				
F8830	<u>Production Engineering - In House</u>			873			845			900			916				
F8840	<u>Quality Assurance</u>			193			201			208			207				
F8850	<u>Product Improvement</u>			0			0			0			0				
F8860	Acceptance T & E			313			409			650			609				
F8900	Production Engineering - Contractor			176			180			183			187				
							6,196			6,266			6,387				
													6,523				

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System								DATE: February 2000			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Other Related Equipment				ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD Torpedo Support Equipment BLI: 330100 SBHD: C3F8									
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 1998			FY 1999			FY 2000			FY 2001		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
F8100	Exercise and Expendables and Component Replacement								6,833			8,688			8,462
F8101	Other Equipment Investment							8,701			5,909			5,006	
F8833	Production Engineering (In-house)							505			413			1,008	
F8843	Quality Assurance							1,124			893			875	
F8863	Acceptance Test and Evaluation							643			290			284	
F8893	Production Engineering - Contractor							0			775			809	
							0			17,806			16,968		16,444

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System						DATE: February 2000							
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Other Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Torpedo Support Equipment BLI: 330100 SBHD: C3F8												
COST CODE	ELEMENT OF COST	FY 2002		FY 2003			FY 2004			FY 2005			To Complete		Total		
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Cost	Quantity	Cost
		F8100	<u>Exercise and Expendables and Component Replacement</u>			8795			9,716			9,369			8,958		
F8101	<u>Other Equipment Investment</u>			4824			7,013			6,681			7,376				
F8833	<u>Production Engineering (In-house)</u>			830			1,018			1,062			1,023				
F8843	<u>Quality Assurance</u>			871			1,194			1,160			1,179				
F8863	<u>Acceptance Test and Evaluation</u>			319			489			433			476				
F8893	Production Engineering - Contractor			825			841			859			877				
				16,464			20,271			19,564			19,889				

UNCLASSIFIED

UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
								February 2000		
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE					SUBHEAD
Weapons Procurement, Navy					Torpedo Support Equipment					C3F8
BA-3 Torpedo Support Equipment										
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY1999										
MK46 Lead Dropper	650	0.426	NUWC, Keyport		RC/FFP	Reisner, Hagerstown, MD	3/99	9/99	Yes	
MK46 Seawater Battery	142	0.292	NUWC, Keyport		RC/FFP	Magnavolt, Clayton, NC	6/00	12/00	Yes	
MK50 MK33 Air Stabilizer	600	1.950	NUWC, Keyport		RC/FFP	Guardian Parachute, Santa Ana, CA	8/99	3/01	Yes	
MK50 MK32 Air Stabilizer	450	1.883	NUWC, Keyport		RC/FFP	Paranetics Technology Inc., San Diego CA	8/99	2/00	Yes	
MK46 MK31 Air Stabilizer	260	0.746	NUWC, Keyport		RC/FFP	United Terex, Inc. Fairview Village, PA	6/99	10/99	Yes	
MK50 SAFT Thermal Battery	30	2.006	NUWC, Keyport		RC/FFP	Eagle Picher, Joplin MO	3/99	10/99	Yes	
FY2000										
MK46 Seawater Battery	1215	0.285	NUWC, Keyport		RC/FFP	Magnavolt, Clayton, NC	3/00	6/01	Yes	
MK78 Mod 1Suspension Band	2307	0.470	NUWC, Keyport		RC/FFP	United Terex, Inc. Fairview Village, PA	3/00	3/01	Yes	
MK50 MK33 Air Stabilizer	200	2.067	NUWC, Keyport	12/00	RC/FFP	Unknown	3/01	3/03	Yes	
MK50 MK32 Air Stabilizer	175	1.976	NUWC, Keyport		RC/FFP	Paranetics Technology Inc., San Diego CA	3/00	3/01	Yes	
MK46 MK31 Air Stabilizer	275	0.766	NUWC, Keyport		RC/FFP	United Terex, Inc. Fairview Village, PA	3/00	9/00	Yes	
FY2001										
MK46 Mod 5 Seawater Battery	857	0.285	NUWC, Keyport		RC/FFP	Magnavolt, Clayton, NC	3/01	3/03	Yes	
MK46 Pressure Cylinder (Short)	258	0.211	NUWC, Keyport		RC/FFP	Cartridge Actuated Devices, Farifield NJ	3/01	3/03	Yes	
MK50 MK33 Air Stabilizer	200	2.067	NUWC, Keyport	12/00	RC/FFP	Unknown	3/01	3/03	Yes	
MK50 MK32 Air Stabilizer	200	2.064	NUWC, Keyport		RC/FFP	Paranetics Technology Inc., San Diego CA	3/01	3/03	Yes	
MK46 MK31 Air Stabilizer	300	0.785	NUWC, Keyport		RC/FFP	United Terex, Inc. Fairview Village, PA	3/01	3/03	Yes	
MK78 Mod 1Suspension Band	850	0.478	NUWC, Keyport	12/00	RC/FFP	Unknown	3/01	3/03	Yes	
D. REMARKS										

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD		
Weapons Procurement, Navy					Torpedo Support Equipment				C3F8		
BA-3 Torpedo Support Equipment											
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE	
FY 1999											
Torpedo Wire Coil	350	2.974	NUWC, Keyport		RC/FFP	Entwhistle, Hudson, MA	6/99	2/00	Yes		
Sub Wire Coil	400	1.795	NUWC, Keyport		RC/FFP	Entwhistle, Hudson, MA	3/99	10/99	Yes		
Flex Hose (Improved)	400	1.496	NUWC, Newport		RC/FFP	Cortland Cable Co, Cortland, NY	10/99	6/00	Yes		
Otto Fuel	296	5.700	NSWC Indian Head		WR	NSWC Indian Head, MD	1/99	7/00	Yes		
Igniter	1000	0.124	NUWC, Keyport		RC/FFP	Quantic, Hollister, CA	7/99	2/00	Yes		
Propellant	500	0.432	NUWC, Keyport		RC/FFP	Thiokol, Elton, MD	6/99	9/00	Yes		
Umbilical Cables (Improved)	400	6.120	NUWC, Newport	8/99	RC/FFP	Unknown	3/00	11/00	Yes		
FY 2000											
Torpedo Wire Coil	500	2.675	NUWC, Keyport		RC/FFP	Entwhistle, Hudson, MA	3/00	7/00	Yes		
Sub Wire Coil	1000	1.830	NUWC, Keyport		RC/FFP	Entwhistle, Hudson, MA	3/00	3/02	Yes		
Flex Hose (Improved)	800	1.820	NUWC, Newport		RC/FFP	Cortland Cable Co, Cortland, NY	3/00	3/01	Yes		
Otto Fuel	300	7.381	NSWC Indian Head		WR	NSWC Indian Head, MD	1/00	7/01	Yes		
Igniter	1000	0.135	NUWC, Keyport		RC/FFP	Quantic, Hollister, CA	3/00	11/00	Yes		
Propellant	1000	0.431	NUWC, Keyport		RC/FFP	Thiokol, Elton MD	3/00	9/00	Yes		
Umbilical Cables (Improved)	200	6.423	NUWC, Newport	8/99	RC/FFP	Unknown	11/00	6/01	Yes		
FY 2001											
Torpedo Wire Coil	500	2.769	NUWC, Keyport		RC/FFP	Entwhistle, Hudson, MA	3/01	7/01	Yes		
Sub Wire Coil	750	1.940	NUWC, Keyport		RC/FFP	Entwhistle, Hudson, MA	3/01	11/01	Yes		
Flex Hose (Improved)	750	1.851	NUWC, Newport		RC/FFP	Cortland Cable Co, Cortland, NY	3/01	3/02	Yes		
Otto Fuel	400	7.505	NSWC Indian Head		WR	NSWC Indian Head, MD	1/01	7/02	Yes		
Igniter	1000	0.140	NUWC, Keyport		RC/FFP	Quantic, Hollister, CA	3/01	11/01	Yes		
Propellant	1000	0.439	NUWC, Keyport		RC/FFP	Thiokol, Elton MD	3/01	9/01	Yes		
Umbilical Cables (Improved)	100	6.532	NUWC, Newport	8/99	RC/FFP	Unknown	3/01	3/02	Yes		
D. REMARKS											

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2000	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 3 - Torpedoes and Related Equipment							P-1 ITEM NOMENCLATURE ASW Range Support BLI: 330200 SBHD: 83F4/C3F4					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY											N/A	0
COST (\$M)				\$14.381	\$15.110	\$14.955	\$13.115	\$13.469	\$13.826	\$14.047		\$98.903
Initial Spares (\$M)												\$0.0
<p>The ASW Range support program provides training range equipment, weapon proofing range equipment, and Fleet support equipment for use on the Navy's underwater ranges. This equipment is used to instrument Fleet exercises and torpedo firings, ASW readiness assessment and ASW weapon production acceptance testing. The Weapon Fleet training ranges supported are Southern California Offshore Range (SCORE), Barking Sands Tactical Underwater Range/Barking Sands Underwater Range Extension (BARSTUR/BSURE), Atlantic Underwater Test and Evaluation Center (AUTEC) and Atlantic Fleet Weapons Training Facility (AFWTF). Test and Evaluation (T&E) ranges are Nanoose, Dabob Bay and Quinault.</p> <p>F4001 - Pinger Exercise Components are placed in weapons and other underwater vehicles for tracking during training and T&E exercises, and to insure safe operation and movement of all craft and weapons on the ranges. In addition, pinger components are also procured to support the future Shallow Water Training Ranges at both coasts and Hawaii.</p> <p>F4003 - Recovery Equipment is used on T&E ranges for recovering weapons on or buried in the sea floor. Approximately \$10 million of hardware is recovered each year using these devices.</p> <p>F4004 - The T&E Range Equipment line provides for improvement and modernization of the Underwater Weapons Evaluation Facility; range equipment for YTT (Yard Torpedo Tender) and test crafts; portable tracking range components used at remote sites for testing requirements in different sea-bottom, littoral and cold water environments; and other range systems in support of weapon T&E operations.</p> <p>F4005 - The ASW Target MK 30 Mod 1 provides essential fleet ASW training on the Navy's underwater tracking ranges. The MK 30 Mod 1 is currently used at the BARSTUR - Hawaii, AUTEC- Bahamas, AFWTF - St. Croix, Virgin Islands and SCORE. ASW range support funds are used to procure components for the MK 30 that are consumed/expended during fleet in-water runs. These funds are also used to replace obsolete components and improve maintenance and reliability of the targets.</p> <p>F4006 - The stationary target components include the MK 28 Targets, and T&E Targets. MK 28 Targets are used for conducting Service Weapons Test (SWT) on in-service and advanced warshot torpedoes. The SWT is the only test the Navy has to verify the explosive chain of torpedoes. Funding is used to procure target systems and components expended during SWT operations in addition to improvement and modernization projects. The T&E targets include the MK 69, a bottom mounted stationary target, and Over-the-side (OTS), a surface deployed target, used to test various weapon attributes during T&E exercises. These targets are needed to fill specific technical requirements for the MK 48 ADCAP, MK 50 and MK54 torpedo upgrades. Funding is used to procure components that improve operability and maintenance of the target.</p> <p>Production Engineering funds support efforts performed by a field activity or contractor during the production phase of these projects.</p>												

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 2000			
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY BA-3: Torpedoes and Related Equipment							P-1 ITEM NOMENCLATURE/LINE ITEM # First Destination Transportation - BLI #241000						
Program Element for Code B Items:							OTHER RELATED PROGRM ELEMENTS						
	Prior Years	ID Code			FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													0
EQUIPMENT COST (In Millions)	N/A				\$2.0	\$1.7	\$1.8	\$2.8	\$2.8	\$2.8	\$3.2		\$17.1
SPARES COST (In Millions)													0
PROGRAM DESCRIPTION/JUSTIFICATION:													
First Destination Transportation provides for the movement of newly procured equipment from the contractor's plant to the initial point of receipt for subsequent shipment to its destination.													
					<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>		
Funding Totals					\$1,972	\$1,657	\$1,842	\$2,796	\$2,745	\$2,844	\$3,188		

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 2000					
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY BA-4: OTHER WEAPONS								P-1 ITEM NOMENCLATURE/LINE ITEM # SMALL ARMS AND WEAPONS - BLI #412900 24E3					
Program Element for Code B Items:								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code			FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													0
EQUIPMENT COST (In Millions)	N/A				\$0.9	\$2.4	\$0.9	\$0.9	\$0.9	\$0.9	\$1.0		\$7.9
SPARES COST (In Millions)													0
PROGRAM DESCRIPTION/JUSTIFICATION:													
<p>Quantities of weapons procured with the above funding are to meet small arms allowances and inventory objectives.</p> <p>This line item provides for initial issue procurement, modernization, standardization and stock replenishment procurement of a wide variety of small arms and weapons (caliber .50 and below), including required gun mounts and associated support components. The line also provides for procurement of sufficient types and quantities of weapons to support training, security afloat and shore missions of approximately 2,495 ship/ashore activities Navy-wide.</p>													
					<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>		
Funding Totals					\$865	\$2,371	\$909	\$920	\$922	\$931	\$956		

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 2000					
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-4								P-1 ITEM NOMENCLATURE 4205 MK-15 CLOSE-IN WEAPON SYSTEM (CIWS) MODS-24DT					
Program Element for Code B Items: ITEM JUSTIFICATION SHEET								Other Related Program Elements					
	Prior Years	ID Code	FY 1997		FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY		A											0
COST (M\$)		A			\$10.7	\$3.0	\$1.0	\$0.5	\$0.0	\$0.0	\$0.0		\$39.6
Initial Spares (M\$)													
<p>THIS LINE ITEM FUNDS PROCUREMENT OF BLOCK 1 UPGRADES (INCLUDING PHALANX SURFACE MODE (PSUM), HIGH ORDER LANGUAGE COMPUTER UPGRADE), BLOCK I ORDALTS, AND RELIABILITY AND MAINTAINABILITY (R&M) IMPROVEMENTS. THE BLOCK 1 UPGRADE INCLUDES A FOURTEEN FOLD INCREASE IN SEARCH ELEVATION ANGLE, A 50% INCREASE IN ON-MOUNT AMMUNITION CAPACITY AND RATE OF FIRE, AND RELIABILITY AND MAINTAINABLE (R&M) IMPROVEMENTS. THIS UPGRADE IS ESSENTIAL TO MEET CURRENT AND PROJECTED ANTI-SHIP MISSILE (ASM) THREATS FOR WHICH THERE ARE NO OTHER MEANS OF SELF DEFENSE.</p> <p>THIS BUDGET FUNDS PLANNED INSTALLATIONS AND SUPPORTS CORE ENGINEERING (SYSTEM AND DESIGN ENGINEERING NECESSARY TO INVESTIGATE/RESOLVE FLEET/FACTORY DESIGN AND ENGINEERING ISSUES SUCH AS ELECTRO-MAGNETIC INTERFERENCE (EMI), SAFETY, HIGH FAILURE RATE ITEMS, CORRECTIVE ACTION AND PARTS OBSOLESCENCE; SOFTWARE VALIDATION, MAINTENANCE AND CONFIGURATION CONTROL FOR PHALANX TACTICAL AND SUPPORT SOFTWARE (469E, HOLC, PASS, IDS, PIMS); PRODUCT ASSURANCE TO RESOLVE RM&A ISSUES FOR THE FLEET AND SUPPORT ACQUISITION REFORM INITIATIVES FOR FUTURE SPARES AND REPAIR EFFORTS; AND FIELD SERVICE EXPERTISE TO RESOLVE ISSUES OF EMERGENT CASUALTIES).</p>													
					FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	
DT001 ORDALTS					8000								
DT802 PRODUCTION ENGR SUPPORT													
DT803 ENGR SUPPORT					2427								
DTINS INSTALLATION													
N85						551		171					
N86					296	2415	964	325					
TOTAL					10723	2966	964	496	0	0	0	0	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: PHALANX CIWS BLOCK 0 TYPE MODIFICATION: UPGRADE MODIFICATION TITLE: BLOCK 1 ORDALTS

DESCRIPTION/JUSTIFICATION:

THE BLOCK 1 MODIFICATION PRIMARY CHARACTERISTICS INCLUDES A FOURTEEN FOLD INCREASE IN SEARCH ELEVATION AND, A 50% INCREASE IN ON-MOUNT AMMUNITION CAPACITY AND RATE OF FIRE AND RELIABILITY AND MAINTAINABILITY(R&M) IMPROVEMENTS. THIS UPGRADE IS ESSENTIAL TO MEET CURRENT AND PROJECTED ANTI-SHIP MISSILE (ASM) THREATS FOR WHICH THERE IS NO CURRENT MEANS OF SELF-DEFENSE.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1997 & Prior		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		IC	TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																					
<i>RDT&E</i>		100818																			100818
<i>PROCUREMENT</i>																					
INSTALLATION KITS																					0
INSTALLATION KITS NONRECURRING																					0
EQUIPMENT																					0
EQUIPMENT NONRECURRING																					0
ENGINEERING CHANGE ORDERS																					0
DATA																					0
TRAINING EQUIPMENT		4972																			4972
SUPPORT EQUIPMENT																					0
BLOCK 1 ORDALTS	219	261276																		219	261276
-PSUM PROCUREMENT	10	15000	3	8000																13	23000
ORMS	var	224790																			224790
PRODUCTION ENGINEERING		21213																			21213
PRODUCTION ENGINEERING SUPPORT		15679																			15679
ENGINEERING SUPPORT				2427																	2236
INSTALL COST		46821		296		2966		964		496											51774
TOTAL PROCUREMENT	229	565341	3	10723		2966		964		496										232	604940

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: PHALANX CIWS BLOCK 0 MODIFICATION TITLE: PHALANX CIWS BLOCK I ORDALTS

INSTALLATION INFORMATION:
 METHOD OF IMPLEMENTATION: **BLOCK 1 CONVERSIONS WILL BE ACCOMPLISHED AT NSWC/LOUISVILLE AND THE PRIME CONTRACTOR FACILITY. CONVERSION WILL BE ACCOMPLISHED CONCURRENT WITH SCHEDULED OVERHAUL OF BLOCK 0 SYSTEMS.**

ADMINISTRATIVE LEAD-TIME: _____ Months PRODUCTION LEADTIME: 24 Months
 CONTRACT DATES: FY 1997: _____ FY 1998: _____ FY 1999: _____
 DELIVERY DATE: FY 1997: _____ FY 1998: _____ FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		To Complete		Total
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	\$
PRIOR YEARS	204	46821	2	296	3	1229	3	778	1	157											6	219	50754
FY 1995 EQUIPMENT																							
FY 1996 EQUIPMENT																							
FY 1997 EQUIPMENT																							
FY 1998 EQUIPMENT						1737		186															
FY 1999 EQUIPMENT									339														
FY 2000 EQUIPMENT																							
FY 2001 EQUIPMENT																							
FY 2002 EQUIPMENT																							
FY 2003 EQUIPMENT																							
TO COMPLETE																							

INSTALLATION SCHEDULE: Input=Delivery to the Facility, Output=Facility providing to Fleet, ready for issue

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	185	2	5	2	2	0	0	2	0	0	0	2	0	0	3	0	0	0	1	0	0	0	0	1	0	0	0	0	28	233	
Out	179	0	0	5	6	4	2	0	2	0	0	0	2	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	28	233	

CLASSIFICATION:

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 2000																	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy / BA-4: OTHER WEAPONS					P-1 ITEM NOMENCLATURE BLI: 4213 MK75/76MM GUN MOUNT MODS / A4DU																						
Program Element for Code B Items:					Other Related Program Elements																						
	Prior Years	ID Code	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program																
QUANTITY											0																
COST (\$M)			\$1.9	\$2.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$3.9																
Initial Spares (\$M)											\$0.0																
<p>COST ELEMENT DU001: THIS ELEMENT PROVIDES FOR THE PROCUREMENT OF SAFETY/SHOCK ORDALTS FOR THE MK 75 GUN MOUNT. THE ORDALTS WILL PROVIDE SAFETY IMPROVEMENTS FOR FFG 7, USCG WMEC 270, AND USCG WHEC 378.</p> <p>DUINS: INSTALLATION OF MOD EQUIPMENT FY96 AND OUT ARE TURN-KEY INSTALLATIONS.</p> <table style="width: 100%; margin-top: 20px;"> <thead> <tr> <th></th> <th>FY 99</th> <th>FY 00</th> <th>FY 01</th> <th>FY 02</th> <th>FY 03</th> <th>FY 04</th> <th>FY 05</th> </tr> </thead> <tbody> <tr> <td>SAFETY/SHOCK ORDALTS</td> <td style="text-align: right;">\$1,932</td> <td style="text-align: right;">\$1,962</td> <td style="text-align: center;">\$0</td> </tr> </tbody> </table> <p>NOTE: FY 01 THROUGH FY 05 - THIS BUDGET LINE HAS BEEN COMBINED WITH BUDGET LINE 4217 GUN MOUNT MODS.</p>													FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	SAFETY/SHOCK ORDALTS	\$1,932	\$1,962	\$0	\$0	\$0	\$0	\$0
	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05																				
SAFETY/SHOCK ORDALTS	\$1,932	\$1,962	\$0	\$0	\$0	\$0	\$0																				

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2000										
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy / BA-4: OTHER WEAPONS						P-1 ITEM NOMENCLATURE BLI: 4217 GUN MOUNT MODS															
Program Element for Code B Items:						Other Related Program Elements															
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program									
QUANTITY												0									
COST (\$M)			\$0.0	\$0.0	\$0.0	\$4.8	\$5.3	\$5.4	\$5.5	\$5.6		\$26.6									
Initial Spares (\$M)												\$0.0									
<p>5" Gun Mount Mods: This element procures gun safety and shock hardening ordalts for 5" MK 45 gun mounts</p> <p>Minor Caliber Mods: This element procures ordalts and miscellaneous equipment required to improve safety and reliability for the 25MM MK 38 Machine Gun System and all other minor caliber ordnance much of which is outdated and difficult to support. It provides initial fill kits and replacement of surveyed and outdated minor caliber ordnance for active ships. This element also procures MK 11 saluting mounts and related components.</p> <p>76MM GUN MOUNT MODS: This element procures safety/shock ordalts for 76MM MK 75 gun mounts. These ordalts will provide safety improvements for USN FFG 7 Class ships, USCG WMEC 270, and USCG WHEC 378 cutters.</p> <p>FY 98 - FY 00: Funding was in three separate budget lines in BA-4 - Other Weapons (Under \$5M Each) with the following accounting data.</p> <table style="width: 100%; margin-top: 20px;"> <tr> <td style="width: 33%;">Subhead: A4E5</td> <td style="width: 33%;">Title: 5" Gun Mount Mods</td> <td style="width: 33%;">BLI: 421000</td> </tr> <tr> <td>Subhead: A4DU</td> <td>Title: 76MM Gun Mount Mods</td> <td>BLI: 421300</td> </tr> <tr> <td>Subhead: A4E6</td> <td>Title: Mods Under \$2M</td> <td>BLI: 422000</td> </tr> </table>													Subhead: A4E5	Title: 5" Gun Mount Mods	BLI: 421000	Subhead: A4DU	Title: 76MM Gun Mount Mods	BLI: 421300	Subhead: A4E6	Title: Mods Under \$2M	BLI: 422000
Subhead: A4E5	Title: 5" Gun Mount Mods	BLI: 421000																			
Subhead: A4DU	Title: 76MM Gun Mount Mods	BLI: 421300																			
Subhead: A4E6	Title: Mods Under \$2M	BLI: 422000																			

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2000				
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-4				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD GUN MOUNT MODS/4217 (A4XX)												
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS														
			Prior Years				FY 1999			FY 2000			FY 2001				
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
XX001	5" Gun Mount Mods																1,449
XX002	Minor Caliber Mods																1,323
XX003	76MM Gun Mount Mods																2,007
			0			0			0			0					4,779

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											February 2000	
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE						
Weapons Procurement, Navy / BA-4: OTHER WEAPONS						BLI: 4220 MODS UNDER \$2 MILLION / A4E6						
Program Element for Code B Items:						Other Related Program Elements						
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total Program
QUANTITY												0
COST (\$M)				\$1.3	\$1.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$2.6
Initial Spares (\$M)												\$0.0
<p>COST ELEMENT E6001: THIS ELEMENT PROVIDES FOR THE PROCUREMENT OF ORDALTS AND MISCELLANEOUS EQUIPMENT FOR A WIDE VARIETY OF CURRENT AND OUTDATED MINOR CALIBER ORDNANCE INCLUDING 20MM THROUGH 40MM GUN SYSTEMS AND 60MM AND 81MM MORTARS. THESE ORDALTS ARE REQUIRED TO IMPROVE SAFETY AND RELIABILITY FOR THE 25MM MK 38 MACHINE GUN SYSTEM AND ALL OTHER MINOR CALIBER ORDNANCE MUCH OF WHICH IS OUTDATED AND DIFFICULT TO SUPPORT. IT PROVIDES INITIAL FILL KITS AND REPLACEMENT OF SURVEYED AND OUTDATED MINOR CALIBER ORDNANCE FOR ACTIVE SHIPS. THIS ELEMENT ALSO PROCURES MK 11 SALUTING MOUNTS AND RELATED COMPONENTS.</p>												
			FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05			
MINOR CALIBER ORDALTS			\$1,266	\$1,306	\$0	\$0	\$0	\$0	\$0			
<p>NOTE: FY 01 THROUGH FY 05 - THIS BUDGET LINE HAS BEEN COMBINED WITH BUDGET LINE 4217 GUN MOUNT MODS.</p>												

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 2000					
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-4, Other Weapons								P-1 ITEM NOMENCLATURE Pioneer UAV Defense Airborne Reconnaissance Program (DARP)-J4PN					
Program Element for Code B Items:								Other Related Program Elements					
	Prior Years	ID Code	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													
COST (In Millions)	N/A		N/A	\$47.7	\$19.0								\$66.7
<p>The Pioneer UAV system provides near-real-time reconnaissance, surveillance, target acquisition (RSTA) and combat assessment (CA) within line-of-sight of a ground control station, both day and night. The Pioneer UAV provides high quality video imagery to ground processing stations via datalink. Nine Pioneer systems are fielded, but prior to FY1998 systems were funded in other appropriations. Six systems support U. S. Navy operations, including current testing/evaluations and deployment aboard six configured LPD ships; two systems support U. S. Marine Corps land based operations; the remaining system supports training requirements. The Pioneer funding provides: replenishment spares needed to improve reliability and maintainability to achieve readiness goals and replenish Unit Support Kits (USKs); readiness impact items that are required to maintain systems safety changes, correct critical system deficiencies and resolve emerging obsolescence issues; ability to maintain the readiness posture of operationally deployed systems and improvements to meet requirements generated from Desert Storm, Somalia and Bosnia operations lessons learned. FY1998 funds provided air vehicles, payloads and Engineering Change Proposals (ECPs) that provide, improved reliability, further engine improvements, circuit board ECPs and obsolescence ECPs. \$3M in FY1998 provided funds for the acquisition of material and establishment of contractor sustaining engineering and logistics efforts needed to support the initial fielding of Unmanned Aerial Vehicles Common Avionics Recovery System (UAV CARS) into the DoD's tactical UAV fleet. In FY1999 funds are provided for obsolete equipment, equipment and support to maintain the Pioneer system during the transition to Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV) beginning in FY2003.</p>													

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System						DATE: February 2000						
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-4, Other Weapons						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Pioneer UAV (DARP) J4PN											
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS															
			Prior Years	FY 1997			FY 1998			FY 1999			FY 2000					
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
	<u>Pioneer System</u>																	
	Unit Support Hardware							14,600			6,000							
	Production Support							7,200			3,400							
	Air Vehicles					15	0.709	10,635			0							
	Payloads					20	0.158	3,168	20	0.147	2,955							
	UAV CARS Logistics							3,000			0							
	Engineering Change Proposals							9,076			0							
	MIAG								30	0.080	2,400							
	MIAG Adapters/Harnesses								36	0.040	1,440							
	Obsolences Equipment										2,787							
								47,679			18,982							

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-4, Other Weapons					C. P-1 ITEM NOMENCLATURE PIONEER UAV (DARP) J4PN					February 2000	
										SUBHEAD	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE	
<u>Pioneer UAV</u>											
FY1998 Payload	20	158	NAVAIR 2.4 Patuxent River		SS/FFP	Pioneer UAV, Inc. Hunt Valley, MD	Apr 98	Jul 99	Yes		
FY1998 Air Vehicle	15	660	NAVAIR 2.4 Patuxent River		SS/FFP	Pioneer UAV, Inc. Hunt Valley, MD	Jul 98	Sep 99	Yes		
FY 1999 Payload	20	147	NAVAIR 2.4 Patuxent River		SS/FFP	Pioneer UAV, Inc Hunt Valley, MD	Oct 99	Sep 00	Yes		
FY 1999 MIAG	30	80	NAVAIR 2.4 Patuxent River		SS/FFP	Pioneer UAV, Inc. Hunt Valley, MD	Mar 00	Sep 00	Yes		
FY 1999 Adapters/ Harnesses	36	40	NAVAIR 2.4 Patuxent River		SS/FFP	Pioneer UAV, Inc Hunt Valley, MD	Mar 00	Sep-00	Yes		
D. REMARKS											

