

DEPARTMENT OF THE NAVY  
FY 1998/1999 BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES

WEAPONS PROCUREMENT, NAVY  
BUDGET ACTIVITY 2

FEBRUARY 1997

## Weapons Procurement, Navy Errata Sheet

The FY 1997 Joint Stand-Off Weapon (JSOW) Navy procurement quantity listed on page N-11 of the Procurement Programs (P-1) exhibit is in error. The correct quantity is 100 as displayed in this Justification of Estimates exhibit. Subsequent P-1 exhibits will reflect the correct procurement quantity.

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

Identification code	17-1507-0-1-051	Budget Plan (amounts for PROCUREMENT actions programed)			
		1996 actual	1997 est.	1998 est.	1999 est.
-----					
Program by activities:					
Direct program:					
00.0101	Ballistic missiles	508,776	316,332	341,412	319,657
00.0201	Other missiles	802,532	844,202	612,993	910,722
00.0301	Torpedoes and related equipment	125,607	120,594	95,715	126,284
00.0401	Other weapons	41,615	30,815	59,230	26,648
00.0501	Other Ordnance				
00.0601	Spares and repair parts	62,167	46,490	26,943	52,429
		-----	-----	-----	-----
00.9101	Total direct program	1,540,697	1,358,433	1,136,293	1,435,740
01.0101	Reimbursable program	641	74,800	74,800	74,800
		-----	-----	-----	-----
10.0001	Total	1,541,338	1,433,233	1,211,093	1,510,540
-----					
Financing:					
Offsetting collections from:					
11.0001	Federal funds(-)	-541	-74,800	-74,800	-74,800
14.0001	Non-Federal sources(-)	-100			
17.0001	Recovery of prior year obligations				
Unobligated balance available, start of year:					
21.4002	For completion of prior year budget plans				
21.4003	Available to finance new budget plans	-68,963			
21.4009	Reprogramming from/to prior year budget plans	-19,781			
22.1001	Unobligated balance transferred to other accounts	2,500			
Unobligated balance available, end of year:					
24.4002	For completion of prior year budget plans				
25.0001	Unobligated balance expiring	9,093			
		-----	-----	-----	-----
39.0001	Budget authority	1,463,546	1,358,433	1,136,293	1,435,740
-----					
Budget authority:					
40.0001	Appropriation	1,641,505	1,389,913	1,136,293	1,435,740
40.3601	Appropriation rescinded (unob bal)	-14,600			
40.7501	Reduction pursuant to P.L. 104-208 (-), 8037(h)		-3,682		
41.0001	Transferred to other accounts (-)	-193,177	-27,798		
42.0001	Transferred from other accounts	29,818			
		-----	-----	-----	-----
43.0001	Appropriation (adjusted)	1,463,546	1,358,433	1,136,293	1,435,740
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Weapons Procurement, Navy  
Program and Financing (in Thousands of dollars) SUMMARY

		Obligations			
Identification code	17-1507-0-1-051	1996 actual	1997 est.	1998 est.	1999 est.
-----					
Program by activities:					
Direct program:					
00.0101	Ballistic missiles	542,059	358,595	327,492	322,687
00.0201	Other missiles	954,331	889,447	602,197	861,404
00.0301	Torpedoes and related equipment	125,800	121,852	116,946	121,301
00.0401	Other weapons	48,218	29,431	50,823	31,828
00.0501	Other Ordnance	13,358			
00.0601	Spares and repair parts	58,629	47,853	48,022	48,191
00.9101 Total direct program		1,742,395	1,447,178	1,145,480	1,385,411
01.0101	Reimbursable program	663	74,925	74,800	74,800
10.0001 Total		1,743,058	1,522,103	1,220,280	1,460,211
-----					
Financing:					
Offsetting collections from:					
11.0001	Federal funds(-)	303	-74,800	-74,800	-74,800
14.0001	Non-Federal sources(-)	14,344			
17.0001	Recovery of prior year obligations	-3,074			
Unobligated balance available, start of year:					
21.4002	For completion of prior year budget plans	-698,539	-464,823	-375,953	-366,766
21.4003	Available to finance new budget plans	-68,963			
21.4009	Reprogramming from/to prior year budget plans				
Unobligated balance transferred to other accounts					
22.1001	Unobligated balance available, end of year:	2,500			
24.4002	For completion of prior year budget plans	464,823	375,953	366,766	417,095
25.0001	Unobligated balance expiring	9,093			
39.0001 Budget authority		1,463,546	1,358,433	1,136,293	1,435,740
-----					
Budget authority:					
40.0001	Appropriation	1,641,505	1,389,913	1,136,293	1,435,740
40.3601	Appropriation rescinded (unob bal)	-14,600			
40.7501	Reduction pursuant to P.L. 104-208 (-), 8037(h)		-3,682		
41.0001	Transferred to other accounts (-)	-193,177	-27,798		
42.0001	Transferred from other accounts	29,818			
43.0001 Appropriation (adjusted)		1,463,546	1,358,433	1,136,293	1,435,740
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Weapons Procurement, Navy  
 Program and Financing (in Thousands of dollars) SUMMARY

		Obligations			
Identification code	17-1507-0-1-051	1996 actual	1997 est.	1998 est.	1999 est.
-----					
Relation of obligations to outlays:					
71.0001	Obligations incurred	1,757,705	1,447,303	1,145,480	1,385,411
72.1001	Orders on hand, SOY	-80,181	-37,434	-37,434	-37,434
72.4001	Obligated balance, start of year	4,183,692	3,286,784	2,668,165	2,198,465
74.1001	Orders on hand, EOY	37,434	37,434	37,434	37,434
74.4001	Obligated balance, end of year	-3,286,784	-2,668,165	-2,198,465	-2,141,609
77.0001	Adjustments in expired accounts (net)	12,874			
78.0001	Adjustments in unexpired accounts	-3,074			
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90.0001	Outlays (net)	2,621,666	2,065,922	1,615,180	1,442,267
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Weapons Procurement, Navy  
Object Classification (in Thousands of dollars) SUMMARY

Identification code	17-1507-0-1-051	1996 actual	1997 est.	1998 est.	1999 est.
-----					
Direct obligations:					
125.101	Advisory and assistance services	35,154	26,777	22,185	25,915
	Purchases goods/services (inter/intra) Fed accounts				
125.303	Purchases from revolving funds	105,464	90,331	76,554	87,745
126.001	Supplies and materials	72,491	95,265	61,702	94,453
131.001	Equipment	1,529,286	1,234,805	985,039	1,177,298
		-----	-----	-----	-----
199.001	Total Direct obligations	1,742,395	1,447,178	1,145,480	1,385,411
Reimbursable obligations:					
226.001	Supplies and materials		20,768	21,262	21,900
231.001	Equipment	663	54,157	53,538	52,900
		-----	-----	-----	-----
299.001	Total Reimbursable obligations	663	74,925	74,800	74,800
999.901	Total obligations	1,743,058	1,522,103	1,220,280	1,460,211
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Comparison of FY 1997 Program Requirements as Reflected  
in the FY 1997 Budget with FY 1997 Program Requirements as  
Shown in FY 1998 Budget (In Thousands of Dollars)

	FY 1997 Total Program Requirements <u>Per FY 1997 Budget</u>	FY 1997 Program Requirements <u>Per FY 1998 Budget</u>	Increase (+) or Decrease (-)
Ballistic Missiles	323,149	316,322	-6,817
Other Missiles	738,239	844,202	+105,963
Torpedoes and Related Equipment	110,682	120,594	+9,912
Other Weapons	31,467	30,815	-652
Ammunition	149,355	0*	-149,355
Spares and Repair Parts	47,471	46,490	-981
Subtotal Direct Program	1,400,363	1,358,433	-41,930
Reimbursable	74,800	74,800	-
Total Fiscal Year	1,475,163	1,433,233	-41,930

\*Funding appropriated in the Procurement Ammunition, Navy & Marine Corps appropriation.

Explanation of Changes in FY 1997 Program Requirements

1. Ballistic Missiles (-\$6.8 million)  
Decrease reflects undistributed Congressional reductions.
2. Other Missiles (+\$106.0 million)  
The overall funding increase reflects the net of undistributed Congressional reductions (-\$19.9 million) and reduced funding for Ordnance Support Equipment (-\$4.6M) offset by Congressional increases for additional Standard Missiles (+\$22.5 million), Tomahawk (+\$11.5 million), AMRAAM (+\$21.9 million), JSOW (+\$15.6 million, Penguin (+\$7 million), Drones and Decoys (+\$17.5 million), Tomahawk modifications (+\$14.4 million), and Harpoon/SLAM (+\$20.1 million).
3. Torpedoes and Related Equipment (+\$9.9 million)  
Changes include Congressional undistributed reductions (-\$3.1 million) and additional funding provided by Congress for the Vertical Launch ASROC program (+\$13 million).
4. Other Weapons (-\$0.7 million)  
Changes reflect adjustments for Congressional undistributed reductions.
5. Ammunition (-149.4 million)  
The FY 1997 President's Budget reflected \$149.355 million for Navy ammunition procurement in the Weapons Procurement, Navy (WPN) appropriation. The Congress transferred this amount to the Procurement of Ammunition, Navy & Marine Corps (PANMC) appropriation. FY 1998 and out funding is now reflected in this appropriation.
6. Spares & Repair Parts (\$-1.0 million)  
This funding reduction is due to an undistributed Congressional reduction.

Comparison of FY 1997 Financing as Reflected in the FY 1997 Budget  
with FY 1997 Financing as Shown in FY 1998 Budget  
(In Thousands of Dollars)

	<u>FY 1997 Financing Per FY 1997 Budget</u>	<u>FY 1997 Financing Per FY 1998 Budget</u>	<u>Increase (+) Decrease (-)</u>
Program Requirements (Total)	1,475,163	1,433,233	-41,930
Program Requirements (Direct)	(1,400,363)	(1,358,433)	(-41,930)
Program Requirements (Re imb)	(74,800)	(74,800)	-
Less:			
Anticipated Reimbursements	74,800	74,800	-
Add:			
Unob bal avail, start of year to finance new budget plans			
Unob bal avail, end of year to finance subseq yr budget plans			
Reprog, prior year budget			
Appropriation Adjusted	1,400,363	1,358,433	-41,930
Budget Authority:			
FY 1997 DoD Appropriations Act	1,400,363	1,389,913	-10,450
Appropriation rescinded			
Reduct Pursuant to P. L. 104-208		-3,682	-3,682
Transferred to other accounts		-27,798	-27,798
Appropriation (Adjusted)	1,400,363	1,358,433	-41,930

### Explanation of Changes in Financing

The FY 1997 Weapons Procurement, Navy appropriation financing (\$1,358.4 million for direct and \$74.8 million for reimbursable) was subsumed within the WPN appropriations' Programming and Financing exhibits. The \$41.9 million change in program requirements is the result of Congressional reductions (-\$10.5 million), and Sect. 8037(h) (-\$2,376 thousand), and Sect. 8120 (-\$27,798 thousand) and Sect. 8138 (-\$1,306 thousand) adjustments.

Comparison of FY 1996 Program Requirements as Reflected  
in the FY 1997 Budget with FY 1996 Program  
Requirements as Shown in FY 1998 Budget (In Thousands of Dollars)

	FY 1996 Total Program Requirements <u>Per FY 1997 Budget</u>	FY 1996 Total Progr Requirements <u>Per FY 1998 Budget</u>	Increase(+) or Decrease (-)
Ballistic Missiles	505,431	508,776	+3,345
Other Missiles	814,857	802,532	-12,325
Torpedoes and Related Equipment	124,934	125,607	+673
Other Weapons	42,155	41,615	-540
Ammunition	*	*	-
Spares and Repair Parts	61,323	62,167	+844
Subtotal Direct Program	1,548,700	1,540,697	-8,003
Reimbursable	74,800	641	-73,159
Total Fiscal Year	1,623,500	1,541,338	-82,162

\*Funding appropriated in the Procurement Ammunition, Navy and Marine Corps appropriation.

Explanation of Changes in FY 1996 Program Requirements

1. Ballistic Missiles (+\$3.3 million)  
Increase reflects minor year of execution adjustments.
  
2. Other Missiles (-\$12.3 million)  
Decrease reflects minor programmatic execution adjustments (-\$11.5 million) and Omnibus Reprogramming action (-\$.8 million).
  
3. Torpedoes and Related Equipment (+\$0.7 million)  
Change reflects minor funding updates.
  
4. Other Weapons (-\$0.5 million)  
Change reflects minor year of execution adjustments.
  
5. Ammunition  
Funding realigned to the Procurement Ammunition, Navy & Marine Corps appropriation.
  
6. Spares & Repair Parts (+\$0.8 million)  
Change reflects minor adjustments to reflect year of execution issues.

Comparison of FY 1996 Financing as Reflected in the FY 1997 Budget  
with FY 1996 Financing as Shown in FY 1998 Budget  
(In Thousands of Dollars)

	<u>FY 1996 Financing Per FY 1997 Budget</u>	<u>FY 1996 Financing Per FY 1998 Budget</u>	<u>Increase (+) Decrease (-)</u>
Program Requirements (Total)	1,623,500	1,541,338	-82,162
Program Requirements (Direct)	(1,548,700)	(1,540,697)	(-8,003)
Program Requirements (Reimb)	(74,800)	(641)	(-73,159)
Less:			
Anticipated Reimbursements	74,800	641	-73,159
Add:			
Unob bal avail, start of year to finance new budget plans:	-64,963	-68,963	-4,000
Unob bal transf to other accts	2,500	2,500	-
Reprogramming from/to prior year budget plans	-	-19,781	-19,781
Appropriation Adjusted	1,486,237	1,463,546	-22,691
Budget Authority:			
FY 1996 DoD Appropriations Act	1,656,193	1,641,505	-14,688
Appropriation rescinded	-14,600	-14,600	-
Transferred from other accts	29,818	29,818	-
Transferred to other accounts	-185,174	-193,177	-8,003
Appropriation (Adjusted)	1,486,237	1,463,546	-22,691

Explanation of Changes in Financing

The -\$22.7 million change in program financing is the result of the actual FY 1996 Congressional appropriation (-\$14.7 million) and transfers to other accounts (-\$8.0 million).

## UNCLASSIFIED

EXHIBIT P-1

DEPARTMENT OF THE NAVY  
FY 1998/1999 PROCUREMENT PROGRAM

APROPRIATION: 1507N Weapons Procurement, Navy

DATE: 02/04/97

LINE NO	ITEM NOMENCLATURE	IDENT CODE	DOLLARS		MILLIONS OF DOLLARS							
			FY1998 UNIT COST	----- FY 1996 -----	----- FY 1997 -----	----- FY 1998 -----	----- FY 1999 -----	-----	-----	-----		
			QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST		
BUDGET ACTIVITY 02: Other Missiles												
Other Missiles												
4	2307 ESSM			-		-		15.5	35	36.5	U	
Strategic Missiles												
5	2101 Tomahawk	A	797231	107	112.1	155	103.4	65	51.8		136.6 U	
Tactical Missiles												
6	2206 AMRAAM	A	570660	115	68.8	100	56.4	100	57.1	100	66.0 U	
7	2224 Harpoon	A		75	83.5		-		-		- U	
8	2230 JSOW	B	519159		25.5	150	78.2	113	58.7	324	130.2 U	
9	2234 Standard Missile	A	1547181	22	127.8	127	215.0	127	196.5	109	277.9 U	
10	2242 RAM	A	440820	210	61.3	135	47.6	100	44.1	145	57.0 U	
11	2260 Penguin	A			-		6.9		-		- U	
12	2280 Aerial Targets	A			70.0		71.3		72.9		82.0 U	
13	2285 Drones and Decoys	A			-		17.1		0.3		0.3 U	
14	2290 Other Missile Support	A			12.3		17.7		18.3		18.8 U	
Modification Of Missiles												
15	2301 Tomahawk Mods	A			48.1		8.1		-		3.2 U	
16	2304 Sparrow Mods	A			1.3		2.5		-		- U	
17	2315 Sidewinder Mods	A			16.1		1.3		0.3		- U	
18	2326 Harpoon Mods	A			2.6		42.1		21.7		36.3 U	
19	2328 Other Missile Mods				0.4		-		-		- U	
20	2356 Standard Missiles Mods	A			33.4		18.2		35.6		46.4 U	
Support Equipment And Facilities												
21	2420 Weapons Industrial Facilities	A			41.8		33.5		34.9		10.7 U	
22	2430 Fleet Satellite Comm (MYP) (S	A			87.9		110.6		-		- U	
Ordnance Support Equipment												
23	2500 Ordnance Support Equipment	A			9.7		14.2		5.3		8.7 U	
TOTAL Other Missiles					802.5		844.2		613.0		910.7	

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET							DATE	
APPROPRIATION/BUDGET ACTIVITY							February 1997	
WEAPONS PROCUREMENT NAVY/BA-2 OTHER MISSILES					P-1 ITEM NOMENCLATURE			
					EVOLVED SEASPARROW MISSILE (ESSM) (12ES) #230700			
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY				35	150	177	176	245
COST <small>(In Millions)</small>		2.5 1]	\$15.5	\$36.5	\$83.5	\$95.1	\$85.5	\$116.4

**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" in the MK41 Vertical Launching System and to be compatible with MK29 trainable launchers for employment in AEGIS, NSSMS, and SSDS configured ships.

The FY98 request will provide for production tooling and test equipment, support equipment, and production support. The FY99 funds will support a Low-Rate Initial Production buy of 35 missiles and additional production start-up costs.

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 Seapsarrow Sufrace Missile System Memorandum of Understanding, covering the Engineering and Manufacturing Development (EMD) phase of the ESSM was signed in June 1995. Negotiations are on-going for a cooperative agreement for the ESSM Production phase scheduled to be signed in early January 1997.

ESSM is a Code "B" Item. Planned date of approval for service use is July 1999

ESSM RDT&E funding is included in program element 0604755N, Project U0173.

1] \$2.5M for ESSM Transistion to Production is included in the SPARROW Modification line P1-14.

EXHIBIT P-40

**UNCLASSIFIED**

<b>WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)</b>		A. Appropriation/Budget Activity Title/No. WPN/Other Missiles/BA-2			B. WEAPON MODEL/SERIES/POPULAR NAME Evolved Seasparrow Missile (ESSM) (12ES)			C. MANUFACTURER NAME/PLANT LOCATION Hughes Missile Systems Co., Tucson, AZ			D. DATE February 1997		
Weapon System Cost Elements	Ident. Code	FY 1996			FY 1997			FY 1998			FY 1999		
		Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
1. Propulsion	ES001										35	118	4,130
2. Guidance & Control 1/	ES002										35	249	8,715
3. Warhead	ES003										35	34	1,190
4. Transition Section	ES004										35	125	4,375
5. Aero Surfaces	ES005										35	55	1,925
6. S-Band Uplink/Downlink	ES006												
7. Thrust Vector Control	ES007												
8. Warhead Compatible Telemeter	ES008										3	125	375
9. Integration, Assembly & Test	ES009										35	24	840
<b>SUBTOTAL MISSILE HARDWARE</b>													21,550
10. Tooling and Test Equipment	ES950									11,565			7,593
11. Shipping Container	ES960										35	5	175
12. Production Engineering	ES830						2,478			2,409			4,669
<b>TOTAL MISSILE FLYAWAY</b>							2,478			13,974			33,987
13. Launch Adapter Kit - MK29/MK48	ES980										35	11	385
14. Launch Adapter Kit - MK41	ES981												
<b>SUBTOTAL COMMAND AND LAUNCH</b>													385
15. Support Equipment	ES940									1,555			785
16. Integrated Logistics Support	ES970												1,329
<b>SUBTOTAL SUPPORT</b>										1,555			2,114
<b>TOTAL</b>							2,478			15,529			36,486

1] Assumes a 7P front end is provided as GFE.

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)										DATE	
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE						
WEAPONS PROCUREMENT, NAVY/BA-2 OTHER MISSILES					EVOLVED SEASPARROW MISSILE (ESSM) - (12ES) #230700						
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
ES001	<u>Propulsion</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	35	118	No	No	N/A
ES002	<u>Guidance &amp; Control Modification</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	35	249	No	No	N/A
ES003	<u>Warhead</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	35	34	No	No	N/A
ES004	<u>Transition Section</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	35	125	No	No	N/A
ES005	<u>Aero Surfaces</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	35	55	No	No	N/A
ES008	<u>Warhead Compatible Telemeter</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	3	125	No	No	N/A
ES009	<u>Integration, Assembly &amp; Test</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	35	24	No	No	N/A
ES960	<u>Shipping Containers</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	35	5	No	No	N/A
ES980	<u>Launch Adapter Kit - MK28/MK48</u> FY 1999	HMSC, Tucson, AZ	SS/FP	NAVSEA	Nov-98	May-00	35	11	No	No	N/A
REMARKS											

CLASSIFICATION:

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CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 1997	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA2/Other Missiles						P-1 ITEM NOMENCLATURE TOMAHAWK (J2EL)(PEO(CU)) (BLI: 210100)					
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	3,974	107	155	65	0	0	0	0	0	-	4,301
COST (\$M)	\$7,262.5	\$112.1	\$103.4	\$51.8	\$136.6	\$141.3	\$142.3	\$109.3	\$190.0	-	\$8,249.3
Initial Spares (\$M)	\$287.2	\$5.7	\$7.3	\$2.4	\$4.3	\$1.0	\$1.1	\$1.3	\$1.4	-	\$311.7
Total (\$M)	\$7,549.7	\$117.8	\$110.7	\$54.2	\$140.9	\$142.3	\$143.4	\$110.6	\$191.4	-	\$8,561.0
Unit Cost (\$M)	1.900	1.101	0.714	0.834	-	-	-	-	-	-	1.990

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 four 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.

The antiship version has a modified HARPOON missile guidance system. This system permits firing in the general direction of any enemy warship at low altitude to avoid detection by radar. At a programmed distance, the missile commences a search to seek out and acquire the target ship with active radar.

The land-attack version has inertial guidance updated by a terrain contour matching (TERCOM) system. The inertial equipment is provided with the known location of the launch platform and target prior to launch. The system then controls the missile on a preprogrammed flight-path to the target. While the missile is flying over land, the TERCOM equipment compares taped digital map actual terrain references to the missile's position and corrects its course to the target. In the conventional land-attack missile, a Digital Scene Matching Area Correlator (DSMAC) compares stored photographic scenes with those observed through an optical lens, to achieve improved terminal accuracy.

The FY98 program will procure 65 new production Block III RGM/UGM-109C, Land Attack Conventional missiles.  
 The FY99 program will procure a total of 145 remanufactured missiles; 15 in the Block III configuration and 130 in the Block IV/1 configuration.

Characterstics and dimensions (approximate) Contractor: Hughes Missiles Systems Company  
 Weight (with booster and capsule) (UGM-109): 4,300 pounds  
 Weight (with booster and canister) (RGM-109): 4,000 pounds

**WEAPONS PROCUREMENT, NAVY  
FY 1998/99 OSD/OMB BUDGET  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

Missile Nomenclature & Popul [TOMAHAWK \(J2EL\)\(PEO\(CU\)\) \(BLI: 210100\)](#)

Date: February 1997

Cost Elements	FY 1996			FY 1997			FY 1998			FY 1999		
	Quantity	Unit Cost	Total Cost									
<u>Missile Hardware</u>												
All-Up-Round	107	667	71,333	155	553	85,683	65	506	32,900	0	0	0
Total Hardware	107	667	71,333	155	553	85,683	65	506	32,900	0	0	0
<u>Procurement Support</u>												
Product Improvement			11,876			3,849			5,225			10,662
Systems Engineering Integration			3,805			3,354			4,025			4,652
Production Engineering			21,585			6,863			15,386			18,869
Total Procurement Support			37,266			14,066			24,636			34,183
Total Flyaway Cost			108,599			99,749			57,536			34,183
Remanufacture (Block III)	0	0	0	0	0	0	0	0	0	15	327	4,900
Remanufacture (Block IV/1)	0	0	0	0	0	0	0	0	0	130	709	92,200
<u>Fleet Support</u>												
Theater Mission Planning Center			2,129			2,830			2,867			3,787
Support Equipment			974			287			783			956
Documentation			376			530			434			547
Total Fleet Support			3,479			3,647			4,084			5,290
Gross Weapons System			112,078			103,396			61,620			136,573
Less GFE Credit			(0)			(0)			(9,800)			(0)
Total Procurement Cost			112,078			103,396			51,820			136,573
Modifications			48,139			8,100			0			3,247
Initial Spares			5,691			7,287			2,397			4,339
Total Program Cost			165,908			118,783			54,217			144,159

**WEAPONS PROCUREMENT, NAVY  
FY 1998/99 OSD/OMB BUDGET  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

Missile Nomenclature & Popular [TOMAHAWK \(J2EL\)\(PEO\(CU\)\) \(BLI: 210100\)](#)

Date: February 1997

Cost Elements	FY 2000			FY 2001			FY 2002			FY 2003		
	Quantity	Unit Cost	Total Cost									
<u>Missile Hardware</u>												
All-Up-Round	0	0	0	0	0	0	0	0	0	0	0	0
Total Hardware	0	0	0	0	0	0	0	0	0	0	0	0
<u>Procurement Support</u>												
Product Improvement			10,227			8,944			7,589			7,761
Systems Engineering Integration			3,625			3,561			3,266			3,634
Production Engineering			17,242			13,792			13,356			13,402
Total Procurement Support			31,094			26,297			24,211			24,797
Total Flyaway Cost			31,094			26,297			24,211			24,797
Remanufacture (Block III)	32	338	10,800	32	344	11,000	32	350	11,200	27	359	9,700
Remanufacture (Block IV/1)	136	679	92,300	136	679	92,320	88	689	60,600	198	697	138,081
<u>Fleet Support</u>												
Theater Mission Planning Center			3,762			6,636			6,939			9,073
Support Equipment			2,537			4,699			4,987			6,525
Documentation			758			1,337			1,398			1,828
Total Fleet Support			7,057			12,672			13,324			17,426
Gross Weapons System			141,251			142,289			109,335			190,004
Less GFE Credit			(0)			(0)			(0)			(0)
Total Procurement Cost			141,251			142,289			109,335			190,004
Modifications			0			0			0			0
Initial Spares			950			1,148			1,313			1,388
Total Program Cost			142,201			143,437			110,648			191,392

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)								A. DATE		
B. APPROPRIATION/BUDGET ACTIVITY				C. P-1 ITEM NOMENCLATURE			SUBHEAD			
Weapons Procurement, Navy BA2/Other Missiles				Tomahawk (PEO(CU)) (BLI: 210100)			J2EL			
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
<u>All-Up-Round</u> 01000/FY96	Hughes Missiles System C Tucson, AZ	SS/Option	NAVAIR	Jan 96	Oct 97	107	667	Yes	No	
01000/FY97		SS/Option	NAVAIR	Jan 97	Oct 98	120	569	Yes	No	
01000/FY97		SS/Option	NAVAIR	Jan 98	Oct 99	35	506	Yes	No	
01000/FY98		SS/Option	NAVAIR	Jan 98	Oct 99	65	506	Yes	No	
D. REMARKS										
155 missiles will be procured with FY97 dollars: 120 will be procured with the FY97 contract option and 35 will be procured with the FY98 contract option.										

**UNCLASSIFIED**



FY 1998/99 BUDGET PRODUCTION SCHEDULE													P-1 ITEM NOMENCLATURE													DATE													
													TOMAHAWK (J2EL)(PEO(CU)) (BLI: 210100)													February 1997													
ITEM/MANUFACTURER/ PROCUREMENT YEAR	FISCAL YEAR 1999												FISCAL YEAR 2000												FISCAL YEAR 2001												L A T E R		
	CALENDAR YEAR 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	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			
R/UGM-109C (Land Attack Conventional)/FY97 (FY97 funded units of FY97 proc.) (FY97 funded units of FY98 proc.)	10	10	10	10	10	10	10	10	10	10	10	10	3	3	3	3	3	3	3	3	3	3	3	2														0	0
R/UGM-109C (Land Attack Conventional)/FY98													6	6	6	6	6	5	5	5	5	5	5	5														0	
TOTAL	10	10	10	10	10	10	10	10	10	10	10	10	9	9	9	9	9	8	8	8	8	8	8	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	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			
REMARKS																																							

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET										DATE:																																														
P-40										February 1997																																														
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE																																																		
<b>Weapons Procurement, Navy</b>						<b>AMRAAM</b>																																																		
<b>BA 2 - Other Missiles</b>																																																								
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program																																													
QUANTITY	948	115	100	100	100	100	100	100	100	656	2,419																																													
COST (\$M)	\$788.8	\$68.8	\$56.4	\$57.1	\$66.0	\$66.9	\$67.7	\$68.3	\$71.5	\$553.5	\$1,865.0																																													
Initial Spares (\$M)	\$20.7	\$1.2	\$2.3	\$0.4	\$0.7	\$1.0	\$0.8	\$1.3	\$1.6	\$12.4	\$42.4																																													
Total (\$M)	\$809.5	\$70.0	\$58.7	\$57.5	\$66.7	\$67.9	\$68.5	\$69.6	\$73.1	\$565.9	\$1,907.4																																													
Unit Cost (\$M)	\$0.854	\$0.609	\$0.587	\$0.575	\$0.667	\$0.679	\$0.685	\$0.696	\$0.731	\$0.863	\$0.788																																													
<p><b>MISSION AND DESCRIPTION:</b></p> <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> <p><b>FY1998-1999 PROGRAM JUSTIFICATION:</b></p> <p>100 missiles will be procured in both FY 1998 and FY 1999 along with non-recurring support costs such as; government field activity technical, test, and logistics support, procurement of test articles, containers, handling equipment, special tooling and test equipment to support the AIM-120C configuration, and procurement of peculiar support equipment in support of the all-up-round and component depot.</p>																																																								
<p>Qty Summary:</p> <table border="1"> <thead> <tr> <th></th> <th>FY 1996</th> <th>FY 1997</th> <th>FY 1998</th> <th>FY 1999</th> <th>FY 2000</th> <th>FY 2001</th> <th>FY 2002</th> <th>FY 2003</th> </tr> </thead> <tbody> <tr> <td>Navy</td> <td>115</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> </tr> <tr> <td>Air Force</td> <td>291</td> <td>133</td> <td>173</td> <td>196</td> <td>267</td> <td>293</td> <td>254</td> <td>316</td> </tr> <tr> <td>FMS/Other</td> <td>891</td> <td>585</td> <td>700</td> <td>600</td> <td>600</td> <td>600</td> <td>600</td> <td>600</td> </tr> <tr> <td>Total</td> <td>1297</td> <td>818</td> <td>973</td> <td>896</td> <td>967</td> <td>993</td> <td>954</td> <td>1016</td> </tr> </tbody> </table>													FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	Navy	115	100	100	100	100	100	100	100	Air Force	291	133	173	196	267	293	254	316	FMS/Other	891	585	700	600	600	600	600	600	Total	1297	818	973	896	967	993	954	1016
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003																																																
Navy	115	100	100	100	100	100	100	100																																																
Air Force	291	133	173	196	267	293	254	316																																																
FMS/Other	891	585	700	600	600	600	600	600																																																
Total	1297	818	973	896	967	993	954	1016																																																

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

**WEAPONS PROCUREMENT, NAVY  
FY 1998/99 PRESIDENT'S BUDGET  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

Missile Nomenclature & Popular Name: AMRAAM

Date: February 1997

Cost Elements	FY 1996	Quantity	115	FY 1997	Quantity	100	FY 1998	Quantity	100	FY 1999	Quantity	100
	Quantity	Unit Cost	Total Cost									
<u>Missile Hardware</u>												
Guidance & Control	115	0.256	29.456	100	0.329	32.926	100	0.285	28.530	100	0.301	30.127
Propulsion	115	0.023	2.618	100	0.029	2.927	100	0.025	2.536	100	0.027	2.678
Warhead	115	0.006	0.655	100	0.007	0.732	100	0.006	0.634	100	0.007	0.669
ECO			2.293			0.747			1.558			1.647
Total Hardware	115	0.305	35.021	100	0.373	37.331	100	0.333	33.258	100	0.351	35.121
<u>Procurement Support</u>												
Production Tech Support			17.289			12.446			9.248			15.420
ST&TE			0.000			0.000			0.700			0.600
Containers			0.000			0.116			0.000			0.000
Production Test			7.634			2.972			5.400			7.183
Total Procurement Support			24.923			15.534			15.348			23.203
Total Flyaway Cost	115	0.521	59.944	100	0.529	52.865	100	0.486	48.606	100	0.583	58.324
<u>Fleet Support</u>												
Test Equipment			3.914			0.328			2.810			2.180
Handling Equipment			0.160			0.190			0.100			0.120
Training Equipment			0.000			0.155			1.300			1.200
ILS			4.592			2.708			4.100			4.000
Data & Pubs			0.146			0.180			0.150			0.200
Total Fleet Support			8.813			3.560			8.460			7.700
Weapon System Cost	115	0.598	68.757	100	0.564	56.425	100	0.571	57.066	100	0.660	66.024
Modifications												
Initial Spares			1.165			2.305			0.378			0.696
Total Program Cost	115	0.608	69.922	100	0.587	58.730	100	0.574	57.444	100	0.667	66.720

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

Missile Nomenclature & Popular Name: AMRAAM

Date: February 1997

Cost Elements	FY 2000	Quantity	100	FY 2001	Quantity	100	FY 2002	Quantity	100	FY 2003	Quantity	100
	Quantity	Unit Cost	Total Cost									
<b>Missile Hardware</b>												
Guidance & Control	100	0.299	29.923	100	0.301	30.091	100	0.309	30.930	100	0.308	30.846
Propulsion	100	0.027	2.660	100	0.027	2.675	100	0.027	2.749	100	0.027	2.742
Warhead	100	0.007	0.665	100	0.007	0.669	100	0.007	0.687	100	0.007	0.685
ECO			1.632			1.650			1.712			1.708
Total Hardware	100	0.349	34.880	100	0.351	35.084	100	0.361	36.079	100	0.360	35.981
<b>Procurement Support</b>												
Production Tech Support			17.247			17.493			15.385			17.185
ST&TE			0.100			0.200			3.200			0.600
Containers			0.300			0.000			0.000			0.000
Production Test			7.214			8.121			7.521			11.030
Total Procurement Support			24.861			25.814			26.106			28.815
Total Flyaway Cost	100	0.597	59.741	100	0.609	60.898	100	0.622	62.185	100	0.648	64.795
<b>Fleet Support</b>												
Test Equipment			1.500			1.400			0.900			0.899
Handling Equipment			0.100			0.100			0.100			0.101
Training Equipment			1.200			1.400			1.400			1.600
ILS			4.200			3.700			3.600			3.800
Data & Pubs			0.200			0.200			0.100			0.300
Total Fleet Support			7.200			6.800			6.100			6.700
Weapon System Cost	100	0.669	66.941	100	0.677	67.698	100	0.683	68.285	100	0.715	71.495
Modifications												
Initial Spares			0.976			0.784			1.333			1.623
Total Program Cost	100	0.679	67.917	100	0.685	68.482	100	0.696	69.618	100	0.731	73.118

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE February 1997	
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles				C. P-1 ITEM NOMENCLATURE AMRAAM				SUBHEAD Y2GB		
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (\$000)	SPECS AVAILABLE NOW	SPEC REV REQD	IF YES WHEN AVAILABLE
FY 1996	Lot X Hughes, Tucson AZ Raytheon, Lowell MA	C/FP	ASC/AFMC	1/29/96	12/97	60	268	YES	NO	
		C/FP	ASC/AFMC	1/29/96	12/97	55	275	YES	NO	
FY 1997	Lot XI TBD	C/FP	ASC/AFMC	1/31/97	12/98	100	373	YES	NO	
FY 1998	Lot XII TBD	C/FP	ASC/AFMC	1/31/98	10/99	100	333	YES	NO	
FY 1999	Lot XIII TBD	C/FP	ASC/AFMC	1/31/99	8/00	100	351	YES	NO	
D. REMARKS										









CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 1997	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA2 - Other Missiles						P-1 ITEM NOMENCLATURE HARPOON (J2EH) (PEO(CU) (2224)					
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	3,986	75	0	0	0	0	0	0	0	0	4,061
COST (\$M)	\$3,520.8	\$83.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,604.3
Initial Spares (\$M)	\$180.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$180.4
Total (\$M)	\$3,701.2	\$83.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,784.7
Unit Cost (\$M)	\$0.929	\$1.113	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.932
<p>HARPOON provides a ship, air and submarine-launched all weather anti-ship cruise missile capability effective against enemy destroyers, light cruisers, surfaced submarines, patrol craft, and other (e.g., merchant, surveillance, etc.) enemy shipping. The Standoff Land Attack Missile (SLAM) variant is effective against fixed targets and ships in harbor.</p> <p>HARPOON uses attitude reference mid-course guidance with an active or passive seeker for target acquisition and terminal guidance. The missile may be launched from the following platforms:</p> <p>Ship-Launch Platforms: FTTT (formerly FF-1052), DDG and DD963, CG, CGN, and FFG-7 Class Ships            Air-Launch Platforms: P-3, A-6, F/A-18, B-52G/H, S-3B            Sub-Launch Platforms: 594, 637, 688 Classes</p> <p>Funding in 1996 of 83.5 million will procure 75 SLAM ER All-Up-Round missiles for the U.S. Navy. The SLAM ER is an upgrade to the SLAM. This missile is a day-night, adverse-weather capable weapon which can be deployed aboard aircraft carriers and launched from existing AGM (Air-to-Ground) equipped/Walleye data link equipped A-6E SWIP (Systems Weapon Integration Program) and F/A-18 aircraft. Simultaneous production of FMS Harpoon and USN SLAM is synergistic for maintaining reasonable unit pricing. FY 1996 represents the final procurement of All-Up-Round missiles for the U.S. Navy. This production profile will allow for a smooth transition to SLAM-ER modification in FY 1997.</p>											

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: [HARPOON / SLAM](#)

Date: [Feb 1997](#)

Cost Elements	FY 1996			FY 1997			FY 1998			FY 1999		
	Quantity	Unit Cost	Total Cost									
<u>Missile Hardware</u>												
HMB/SYS ENGR/DATA	75	0.475	35.656									
ECO	75	0.027	2.012									
SLAM UNIQUE	75	0.339	25.395									
ENGINE	75	0.089	6.699									
WARHEAD	75	0.038	2.823									
WINGS & FINS	75	0.022	1.637									
Total Hardware	75	0.990	74.222									
<u>Procurement Support</u>												
GOVT IN-HOUSE			4.473									
Total Procurement Support			4.473									
Total Flyaway Cost	75	1.049	78.695									
<u>Fleet Support</u>												
TRAINING			0.250									
ILS SERVICES			4.552									
Total Fleet Support			4.802									
Weapon System Cost	75	1.113	83.497									
Modifications			2.606			42.101			21.694			36.314
Initial Spares			0.000			0.000			0.000			0.000
Total Program Cost	75	1.148	86.103			42.101			21.694			36.314

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY				C. P-1 ITEM NOMENCLATURE/SUBHEAD								
Weapons Procurement, Navy/BA2 - Other Missiles				AGM-RGM-UGM-8 HARPOON							J2EH	
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE		
ALL-UP-ROUND												
FY1995	MCDONNELL DOUGLAS CORPORATION ST. LOUIS, MO	SS/FFP	NAVAIR	Aug 95	Jan 97	58	0.981	YES	NO			
FY1996	MCDONNELL DOUGLAS CORPORATION ST. LOUIS, MO	SS/FFP	NAVAIR	Aug 96	Jan 98	75	0.990	YES	NO			
D. REMARKS												



ITEM/MANUFACTURER/ PROCUREMENT YEAR	CALENDAR YEAR 1999												FISCAL YEAR 2000												FISCAL YEAR 2001												L A T E R														
	CALENDAR YEAR 1999												CALENDAR YEAR 2000												CALENDAR YEAR 2001																										
	1998																																																		
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S			
	C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E			
	T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P			
FY1996 USN	5	5	4																																																
*FMS	4	5	5																																																
TOTAL	9	10	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S			
	C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	A	P	A	U	U	U	E			
	T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P			

REMARKS

\* Estimated delivery schedule. No signed LOAs beyond FY-96.

CLASSIFICATION:

# UNCLASSIFIED

<b>BUDGET ITEM JUSTIFICATION SHEET</b> <b>P-40</b>	<b>DATE:</b> <b>Feb-97</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>Weapons Procurement, Navy</b> <b>BA-2 Other Missiles</b>	<b>P-1 ITEM NOMENCLATURE</b> <b>Joint Standoff Weapon (JSOW) #223000</b>
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	Prior Years	FY 1996	FY 1997	FY 1998 *	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	0	0	100	113	324	748	866	1,026	1,075	13,548	17,800
COST (\$M)	\$0.0	\$25.5	\$78.2	\$58.7	\$130.2	\$222.3	\$321.8	\$368.6	\$380.1	5092.7	\$6,678.1
Initial Spares (\$M)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$0.6	\$1.2	\$1.0	\$0.0	156.5	\$159.6
Total (\$M)	\$0.0	\$25.5	\$78.2	\$58.7	\$130.6	\$222.9	\$323.0	\$369.6	\$380.1	5249.2	\$6,837.7
Unit Cost (\$M)	N/A	N/A	.782	.589	.403	.298	.373	.360	.354	.387	.384

JSOW is a joint USN/USAF program with the USN as the lead service. The Joint Standoff Weapon System (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 JSOW Baseline variant (AGM-154A) will be integrated on USN and USAF aircraft, with a 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-16 C/D and B-1B aircraft. JSOW Baseline (AGM 154A) Limited Rate Initial Procurement (LRIP) commences in the USN FY 97 program. The BLU-108 variant and the Unitary variant commence production in FY 00 and FY 01 respectively.

The FY98 budget request provides for the procurement of 113 Baseline variants for the Navy. The FY99 budget request provides for 324 Baseline variants.

\*FY 97 Congressional plus-up of \$15.6M will be executed with the FY 98 procurement.

QUANTITIES	<u>FY-97</u>	<u>FY-98</u>	<u>FY-99</u>	<u>FY-00</u>	<u>FY-01</u>	<u>FY-02</u>	<u>FY-03</u>
USN (Baseline)	100	113	324	560	497	524	584
USN (BLU-108)	0	0	0	188	251	335	282
USN (Unitary)	0	0	0	0	118	167	209
USAF (Baseline)	0	0	78	121	171	65	53
USAF (BLU-108)	<u>0</u>	<u>0</u>	<u>61</u>	<u>144</u>	<u>206</u>	<u>227</u>	<u>314</u>
TOTAL FY Qty	100	113	463	1,013	1,243	1,318	1,442

P-1 SHOPPING LIST

CLASSIFICATION:

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

Missile Nomenclature & Popular Name:

JSOW

Date: Feb-97

Cost Elements	FY 1996			FY 1997			FY 1998			FY 1999		
	Quantity	Unit Cost	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)	0.000		0.000	100		46.910	113 *		51.037	324		85.317
Contractor (Warranty/ECO/Data)			0.000			1.586			2.018			5.119
Total Hardware	0.000	0.000	0.000	100	0.485	48.496	113	0.470	53.055	324	0.279	90.436
<u>Procurement Support</u>												
LC GEU/Control			0.000			7.084			3.181			0.000
Gov't In-house/Prod Supt			0.000			2.182			5.543			5.004
Special Tools and Test Equip			25.458			0.000			5.556			27.011
Containers			0.000			1.462			1.589			3.739
Telemetry			0.000			1.989			2.028			1.949
Command & Launch/ST&E/Mission/SW			0.000			0.000			0.000			0.000
Total Procurement Support			25.458			12.717			17.897			37.703
Total Flyaway Cost			25.458			61.213			70.952			128.139
<u>Fleet Support</u>												
ILS/Support			0.000			1.445			3.287			2.075
Total Fleet Support			0.000			1.445			3.287			2.075
Weapon System Cost			25.458			62.658			74.239			130.214
<b>FY 97 Congressional Add Adjustment</b>						<b>15.574</b>			<b>-15.574</b>			
<b>Net P-1 Cost</b>						<b>78.232</b>			<b>58.665</b>			
Modifications			0.000			0.000			0.000			0.000
Initial Spares			0.000			0.000			0.000			0.351
Total Program Cost			25.458			78.232			58.665			130.565

\*FY 97 Congressional plus-up of \$15.6M will be executed with the FY 98 procurement.

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

Missile Nomenclature & Popular Name: JSOW

Date: Feb-97

Cost Elements	FY 2000			FY 2001			FY 2002			FY 2003		
	Quantity	Unit Cost	Total Cost									
<u>Missile Hardware</u>												
All Up Round (AUR)	748		183.880	866		277.537	1,026		317.543	1,075		303.916
Contractor (Warranty/ECO/Data)			11.033			15.268			17.582			18.234
Total Hardware	748	0.261	194.913	866	0.338	292.805	1,026	0.327	335.125	1,075	0.300	322.150
<u>Procurement Support</u>												
Gov't In-house/Prod Supt			3.930			6.280			7.001			6.436
Special Tools and Test Equip			9.534			4.619			4.596			25.077
Containers			7.708			8.435			9.811			10.188
Telemetry			3.742			5.427			5.361			5.370
Command & Launch/ST&E/Mission/SW			0.000			0.331			0.000			0.000
Total Procurement Support			24.914			25.092			26.769			47.071
Total Flyaway Cost			219.827			317.897			361.894			369.221
<u>Fleet Support</u>												
ILS/Support			2.436			3.871			6.699			10.922
Total Fleet Support			2.436			3.871			6.699			10.922
Weapon System Cost			222.263			321.768			368.593			380.143
Modifications			0.000			0.000			0.000			0.000
Initial Spares			0.645			1.195			1.020			0.000
Total Program Cost			222.908			322.963			369.613			380.143

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE	
B. APPROPRIATION/BUDGET ACTIVITY				C. P-1 ITEM NOMENCLATURE				SUBHEAD		
Weapons Procurement, Navy B.A. 2- Other Missiles				#223000 Joint Standoff Weapons				Y2JS		
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
Special Tools/ Test Equipment FY - 96	TEXAS INSTRUMEN (Lewisville, TX)	CPIF (option on E&MD)	NAVAIR	Mar 96	Dec 96	Lot	N/A	N/A	No	
LRIP FY - 97	TEXAS INSTRUMEN (Lewisville, TX)	CPIF (option on E&MD)	NAVAIR	Feb 97	Jun 98	100	0.485	N/A	No	
FY - 98	TEXAS INSTRUMEN (Lewisville, TX)	FPIF	NAVAIR	Dec 97	Feb 99	113*	0.470	N/A	No	
FY - 99	TEXAS INSTRUMEN (Lewisville, TX)	FPIF	NAVAIR	Nov 98	Jan 00	324	0.279	N/A	No	
D. REMARKS										
*FY 97 Congressional plus-up of \$15.6M will be executed with the FY 98 procurement.										







CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: FEBRUARY 1997		
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY BA-2 OTHER MISSILES										P-1 ITEM NOMENCLATURE STANDARD MISSILE (SM-2 MR/ER) 12FE BLI: 223400		
	PRIOR YEARS	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TO COMPLETE	TOTAL PROGRAM	
QUANTITY	10,033	22	139	127	109	135	184	241	267	1,901	13,158	
COST (In Millions)	\$6,109.6	\$128.	\$215.0	\$196.5	\$278.	\$338.5	\$386.	\$462.2	\$486.2	\$2,693.3	\$11,293.3	
Initial Spares (in Millions)	\$136.1	\$7.8	\$4.5	\$4.	\$14.1	\$6.2	\$6.	\$6.3	\$6.	\$99.8	\$290.8	
Total (in Millions)	\$6,245.7	\$135.8	\$219.5	\$200.5	\$292.1	\$344.7	\$392.	\$468.5	\$492.2	\$2,793.1	\$11,584.1	
Unit Cost (in Millions)	\$.6	\$6.2	\$1.6	\$1.6	\$2.7	\$2.6	\$2.1	\$1.9	\$1.8	\$1.5	\$.9	

**PROGRAM OVERVIEW:**  
 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 IIIA and earlier variants currently deployed.

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 of Block IIIA. The SM-2 Block IVA is a product improvement to the Block IV missile to provide a near term capability against TBMs with an objective of maintaining the current Block IV AAW capability.

Note: Procurement funding for the SM-2 Block IVA was moved into this line from the Defense Wide Procurement Appropriation (Ballistic Missile Defense Organization Navy Area Theater Ballistic Missile Defense Program) as follows: FY98,\$14.5M;FY99, \$44.3M;FY00,\$129.2M FY01,\$160.0M;FY02,\$234.8M; and FY03,\$224.5M.

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

**MISSILE SYSTEM COST ANALYSIS**

**Classification: UNCLASSIFIED**

Date: FEBRUARY 1997

Missile: STANDARD SM-2 (12FE)	FY 1996			FY 1997			FY 1998			FY 1999		
	QTY	UNITS	22	QTY	UNITS	139	QTY	UNITS	127	QTY	UNITS	109
FLYAWAY COSTS	QTY	COST	TOT COST	QTY	COST	TOT COST	QTY	COST	TOT COST	QTY	COST	TOT COST
<b>FLIGHT HARDWARE</b>	<b>22</b>	<b>\$2,265.5</b>	<b>\$49,841</b>	<b>139</b>	<b>\$974.</b>	<b>\$135,382</b>	<b>127</b>	<b>\$1,017.5</b>	<b>\$129,226</b>	<b>109</b>	<b>\$1,774.1</b>	<b>\$193,373</b>
G,C&A/MK72 BOOSTER(FE001)												
AEGIS BLK IIIA												
AEGIS BLK IIIB				80	\$527.5	\$42,197	83	\$536.1	\$44,496	75	\$569.7	\$42,724
AEGIS BLK IV	22	\$2,004.7	\$44,103	59	\$1,296.3	\$76,482	44	\$1,234.7	\$54,325			
AEGIS BLK IVA										34	\$2,687.5	\$91,374
SM AEGIS IMPROV									\$15,431			\$44,346
Request for Equitable Adjustment (REA)			\$3,048									
<b>PROPULSION</b>												
MK 104 DTRM (FE009)	22	\$48.2	\$1,060	139	\$48.7	\$6,764	127	\$49.6	\$6,294	109	\$58.6	\$6,383
Request for Equitable Adjustment (REA)			\$172									
<b>ORDNANCE</b>												
MK 54 S&A DEVICE (FE003)	22	\$7.0	\$154	139	\$8.3	\$1,158	127	\$8.2	\$1,044	109	\$8.3	\$910
MK 45 TDD MOD 9/10 (FE005)	22	\$44.2	\$972	139	\$44.1	\$6,134	127	\$41.3	\$5,250	109	\$51.	\$5,557
<b>WARHEAD</b>												
MK 125 (FE006)	22	\$15.1	\$332	139	\$19.	\$2,647	127	\$18.8	\$2,387	109	\$19.1	\$2,080
<b>PROCUREMENT SUPPORT</b>			<b>\$44,598</b>			<b>\$42,283</b>			<b>\$42,389</b>			<b>\$49,956</b>
CONTRACTOR ENGINEERING (FE830)			\$15,961			\$10,044			\$11,049			\$17,603
GOVERNMENT IN-HOUSE ENGINEERING (FE830)			\$4,363			\$4,748			\$4,783			\$5,531
QUALITY ASSURANCE (FE840)			\$2,094			\$2,459			\$2,383			\$2,509
DOCUMENTATION (FE954)			\$1,451			\$1,078			\$1,028			\$1,628
PRODUCTION PROOF (FE955)			\$5,431			\$5,588			\$5,648			\$5,890
EVAL SERV & MATL (FE860)			\$15,298			\$18,366			\$17,498			\$16,795
<b>TOTAL RECURRING FLYAWAY</b>	<b>22</b>	<b>\$4,292.7</b>	<b>\$94,439</b>	<b>139</b>	<b>\$1,278.2</b>	<b>\$177,665</b>	<b>127</b>	<b>\$1,351.3</b>	<b>\$171,615</b>	<b>109</b>	<b>\$2,232.4</b>	<b>\$243,329</b>
CONTAINERS (FE957)			\$1,136			\$1,106			\$992			\$1,024
TOOLS AND TEST EQUIP (FE950)			\$16,276			\$6,826			\$4,925			\$10,345
COMPONENT IMPROVEMENTS (FE850)			\$5,971			\$5,198			\$3,898			\$5,623
<b>TOTAL NONRECUR FLYAWAY COSTS</b>			<b>\$23,383</b>			<b>\$13,130</b>			<b>\$9,815</b>			<b>\$16,992</b>
<b>TOTAL FLYAWAY COSTS</b>	<b>22</b>	<b>\$5,355.6</b>	<b>\$117,822</b>	<b>139</b>	<b>\$1,372.6</b>	<b>\$190,795</b>	<b>127</b>	<b>\$1,428.6</b>	<b>\$181,430</b>	<b>109</b>	<b>\$2,388.3</b>	<b>\$260,321</b>
<b>GROUND EQUIP/FLEET SUPT</b>			<b>\$9,994</b>			<b>\$24,239</b>			<b>\$15,062</b>			<b>\$17,609</b>
INSTAL & CHECKOUT EQUIP (FE970)			\$5,283			\$11,732			\$6,983			\$6,471
SPECIAL HANDLING EQUIP (FE971)			\$502			\$502			\$502			\$550
TRNG MTLEXP & NON-EXP (FE972)			\$1,909			\$9,460			\$4,982			\$7,993
FLEET DOCUMENTATION (FE973)			\$800			\$1,368			\$1,468			\$1,468
ILS (FE980)			\$1,500			\$1,177			\$1,127			\$1,127
<b>TOTAL MISSILE COSTS</b>	<b>22</b>	<b>\$5,809.8</b>	<b>\$127,816</b>	<b>139</b>	<b>\$1,547.</b>	<b>\$215,034</b>	<b>127</b>	<b>\$1,547.2</b>	<b>\$196,492</b>	<b>109</b>	<b>\$2,549.8</b>	<b>\$277,930</b>
<b>INITIAL SPARES</b>			<b>\$7,768</b>			<b>\$4,516</b>			<b>\$3,441</b>			<b>\$14,137</b>
<b>MODIFICATION</b>			<b>\$33,356</b>			<b>\$18,153</b>			<b>\$35,601</b>			<b>\$46,433</b>
<b>TOTAL PROGRAM COST</b>	<b>22</b>	<b>\$7,679.1</b>	<b>\$168,940</b>	<b>139</b>	<b>\$1,710.1</b>	<b>\$237,703</b>	<b>127</b>	<b>\$1,854.6</b>	<b>\$235,534</b>	<b>109</b>	<b>\$3,105.5</b>	<b>\$338,500</b>

**MISSILE SYSTEM COST ANALYSIS**

**Classification: UNCLASSIFIED**

Date: FEBRUARY 1997

Missile: STANDARD SM-2 (12FE)	FY 2000			FY 2001			FY 2002			FY 2003		
		UNITS	135		UNITS	184		UNITS	241		UNITS	267
FLYAWAY COSTS	QTY	COST	TOT COST									
<b>FLIGHT HARDWARE</b>	<b>135</b>	<b>\$1,936.5</b>	<b>\$261,432</b>	<b>184</b>	<b>\$1,744.3</b>	<b>\$320,955</b>	<b>241</b>	<b>\$1,668.6</b>	<b>\$402,130</b>	<b>267</b>	<b>\$1,593.5</b>	<b>\$425,473</b>
G,C&A/MK72 BOOSTER(FE001)												
AEGIS BLK IIIA												
AEGIS BLK IIIB	77	\$544.5	\$41,928	91	\$502.2	\$45,699	91	\$476.3	\$43,343	92	\$471.8	\$43,409
AEGIS BLK IV												
AEGIS BLK IVA	58	\$2,294.6	\$133,084	93	\$1,783.3	\$165,845	150	\$1,645.4	\$246,806	175	\$1,569.2	\$274,612
SM AEGIS IMPROV			\$68,6650			\$86,7480			\$83,492			\$76,275
Request for Equitable Adjustment (REA)												
<b>PROPULSION</b>												
MK 104 DTRM (FE009)	135	\$56.	\$7,564	184	\$53.	\$9,748	241	\$50.7	\$12,228	267	\$50.4	\$13,454
Request for Equitable Adjustment (REA)												
<b>ORDNANCE</b>												
MK 54 S&A DEVICE (FE003)	135	\$8.2	\$1,109	184	\$8.	\$1,481	241	\$8.	\$1,920	267	\$8.	\$2,123
MK 45 TDD MOD 9/10 (FE005)	135	\$48.5	\$6,542	184	\$43.7	\$8,047	241	\$41.3	\$9,951	267	\$40.2	\$10,745
<b>WARHEAD</b>												
MK 125 (FE006)	135	\$18.8	\$2,537	184	\$18.4	\$3,386	241	\$18.2	\$4,390	267	\$18.2	\$4,855
<b>PROCUREMENT SUPPORT</b>			<b>\$47,116</b>			<b>\$45,007</b>			<b>\$42,379</b>			<b>\$42,488</b>
CONTRACTOR ENGINEERING (FE830)			\$17,045			\$14,790			\$14,438			\$14,359
GOVERNMENT IN-HOUSE ENGINEERING (FE830)			\$7,346			\$6,649			\$5,830			\$5,840
QUALITY ASSURANCE (FE840)			\$2,209			\$2,250			\$2,094			\$2,328
DOCUMENTATION (FE954)			\$920			\$851			\$714			\$726
PRODUCTION PROOF (FE955)			\$5,273			\$5,288			\$4,965			\$4,834
EVAL SERV & MATL (FE860)			\$14,323			\$15,179			\$14,338			\$14,401
<b>TOTAL RECURRING FLYAWAY</b>	<b>135</b>	<b>\$2,285.5</b>	<b>\$308,548</b>	<b>184</b>	<b>\$1,988.9</b>	<b>\$365,962</b>	<b>241</b>	<b>\$1,844.4</b>	<b>\$444,509</b>	<b>267</b>	<b>\$1,752.7</b>	<b>\$467,961</b>
CONTAINERS (FE957)			\$986			\$591			\$363			\$282
TOOLS AND TEST EQUIP (FE950)			\$7,582			\$2,741			\$2,685			\$2,342
COMPONENT IMPROVEMENTS (FE850)			\$5,101			\$4,911			\$4,028			\$3,914
<b>TOTAL NONRECUR FLYAWAY COSTS</b>			<b>\$13,669</b>			<b>\$8,243</b>			<b>\$7,076</b>			<b>\$6,538</b>
<b>TOTAL FLYAWAY COSTS</b>	<b>135</b>	<b>\$2,386.8</b>	<b>\$322,217</b>	<b>184</b>	<b>\$2,033.7</b>	<b>\$374,205</b>	<b>241</b>	<b>\$1,873.8</b>	<b>\$451,585</b>	<b>267</b>	<b>\$1,777.1</b>	<b>\$474,499</b>
<b>GROUND EQUIP/FLEET SUPT</b>			<b>\$16,302</b>			<b>\$11,705</b>			<b>\$10,594</b>			<b>\$11,742</b>
INSTAL & CHECKOUT EQUIP (FE970)			\$8,475			\$4,854			\$4,815			\$4,835
SPECIAL HANDLING EQUIP (FE971)			\$200.			\$200.			\$150			\$1,500
TRNG MTLEXP & NON-EXP (FE972)			\$5,497			\$4,668			\$4,382			\$4,140
FLEET DOCUMENTATION (FE973)			\$1,168			\$1,050			\$464			\$472
ILS (FE980)			\$962			\$933			\$783			\$795
<b>TOTAL MISSILE COSTS</b>	<b>135</b>	<b>\$2,507.5</b>	<b>\$338,519</b>	<b>184</b>	<b>\$2,097.3</b>	<b>\$385,910</b>	<b>241</b>	<b>\$1,917.8</b>	<b>\$462,179</b>	<b>267</b>	<b>\$1,821.1</b>	<b>\$486,241</b>
<b>INITIAL SPARES</b>			<b>\$5,841</b>			<b>\$5,983</b>			<b>\$6,300</b>			<b>\$5,655</b>
<b>MODIFICATION</b>			<b>\$45,209</b>			<b>\$53,969</b>			<b>\$51,107</b>			<b>\$53,026</b>
<b>TOTAL PROGRAM COST</b>	<b>135</b>	<b>\$2,885.7</b>	<b>\$389,569</b>	<b>184</b>	<b>\$2,423.2</b>	<b>\$445,862</b>	<b>241</b>	<b>\$2,156.</b>	<b>\$519,586</b>	<b>267</b>	<b>\$2,040.9</b>	<b>\$544,922</b>

**Classification:UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING  
P-5A

DATE:  
FEBRUARY 1997

APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY OTHER MISSILES			P-1 ITEM NOMENCLATURE STANDARD MISSILE (SM-2 MR/ER)						SUBHEAD 12FE		
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QTY	UNIT COST	SPECS AVAIL NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
<b>UNIQUE SM-2 MR/ER HARDWARE</b>											
<b>FE001 GUIDANCE &amp; CONTROL &amp; AUTOPILOT/ MK72 BOOSTER</b>											
	FY-96-BLK IV AEGIS	SMCo- McClean, VA.	CPI/AF	NAVSEA	03/96	03/98	22	\$2004.7	YES	NO	
	FY-97-BLK IIIB AEGIS	SMCo- McClean, VA.	FFP/AF	NAVSEA	02/97	02/99	80	\$527.5	YES	NO	
	FY-97-BLK IV AEGIS	SMCo- McClean, VA.	FPI/AF	NAVSEA	02/97	02/99	59	\$1,296.3	YES	NO	
	FY-98 BLK IIIB AEGIS	SMCo- McClean, VA.	FFP/AF	NAVSEA	01/98	01/00	83	\$536.1	YES	NO	
	FY-98 BLK IV AEGIS	SMCo- McClean, VA.	FFP/AF	NAVSEA	01/98	01/00	44	\$1,234.7	YES	NO	
	FY-99 BLK IIIB AEGIS	SMCo- McClean, VA.	FFP/AF	NAVSEA	01/99	01/01	75	\$569.7	YES	NO	
	FY-99 BLK IVA AEGIS	SMCo- McClean, VA.	CPAF	NAVSEA	04/99	04/01	35	\$2,610.7	NO	YES	POST-CDR 2/97
<b>COMMON HARDWARE</b>											
<b>FE009 DTRM MK 104</b>											
	FY 96 MOD 3	ARC-Camden, AR.	SS/FFP/PI	NAVSEA	03/96	10/97	22	\$48.2			
	FY 97 MOD 2/3	ARC-Camden, AR.	SS/FFP/PI	NAVSEA	03/97	10/98	139	\$48.7	YES	NO	
	FY 98 MOD 2/3	ARC-Camden, AR.	SS/FFP/PI	NAVSEA	03/98	10/99	127	\$49.6	YES	NO	
	FY 99 MOD 2/3	ARC-Camden, AR.	SS/FFP/PI	NAVSEA	03/99	10/00	110	\$58.	YES	NO	
<b>FE003 SAFETY AND ARMING DEVICE</b>											
	FY 96 MK 54	KAMAN - Middletown, CT.	SS/FFP	NAVSEA	03/96	10/97	22	\$7.0	YES	NO	
	FY 97 MK 54	KAMAN - Middletown, CT.	SS/FFP	NAVSEA	03/97	10/98	139	\$8.3	YES	NO	
	FY 98 MK 54	KAMAN - Middletown, CT.	SS/FFP	NAVSEA	03/98	10/99	127	\$8.2	YES	NO	
	FY 99 MK 54	KAMAN - Middletown, CT.	SS/FFP	NAVSEA	03/99	10/00	110	\$8.3	YES	NO	
<b>FE005 ORDNANCE MK 45 TDD</b>											
	FY 96 MOD 9/10	MOTOROLA - Scottsdale, AZ.	SS/FFP/PI	NAVSEA	06/96	10/97	22	\$44.2	YES	NO	
	FY 97 MOD 9/10	MOTOROLA - Scottsdale, AZ.	SS/FFP/PI	NAVSEA	06/97	10/98	139	\$44.1	YES	NO	
	FY 98 MOD 9/10	MOTOROLA - Scottsdale, AZ.	SS/FFP/PI	NAVSEA	06/98	10/99	127	\$41.3	YES	NO	
	FY 99 MOD 9/10	MOTOROLA - Scottsdale, AZ.	SS/FFP/PI	NAVSEA	06/99	10/00	110	\$50.5	YES	NO	
<b>FE006 WARHEAD</b>											
	FY 96 MK 125	HERCULES - Magna, UT.	SS/FFP	NAVSEA	03/96	10/97	22	\$15.1	YES	NO	
	FY 97 MK 125	HERCULES - Magna, UT.	SS/FFP	NAVSEA	04/97	11/98	139	\$19.	YES	NO	
	FY 98 MK 125	HERCULES - Magna, UT.	SS/FFP	NAVSEA	04/98	11/99	127	\$18.8	YES	NO	
	FY 99 MK 125	HERCULES - Magna, UT.	SS/FFP	NAVSEA	04/99	11/00	110	\$18.90	YES	NO	
REMARKS											









DATE: February 1997

**APPROPRIATION/BUDGET ACTIVITY  
WEAPONS PROCUREMENT, NAVY / 2-OTHER MISSILES**

**P-1 ITEM NOMENCLATURE  
RIM 116A - ROLLING AIRFRAME MISSILE (RAM)-12EF  
BLI: 224200**

	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
<b>QUANTITY</b>	<b>210</b>	<b>135</b>	<b>100</b>	<b>145</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>COST ( In Millions)</b>	<b>\$61.3</b>	<b>\$47.6</b>	<b>\$44.1</b>	<b>\$57.0</b>	<b>\$33.8</b>	<b>\$34.6</b>	<b>\$35.5</b>	<b>\$36.4</b>
<b>Initial Spares ( In Millions)</b>	<b>\$0.5</b>	<b>\$1.2</b>	<b>\$1.1</b>	<b>\$2.2</b>	<b>\$2.4</b>	<b>\$1.6</b>	<b>\$1.5</b>	<b>\$1.1</b>
<b>Total ( In Millions)</b>	<b>\$61.8</b>	<b>\$48.8</b>	<b>\$45.2</b>	<b>\$59.2</b>	<b>\$36.2</b>	<b>\$36.2</b>	<b>\$37.0</b>	<b>\$37.5</b>
<b>Unit Cost ( In Millions)</b>	<b>\$0.3</b>	<b>\$0.4</b>	<b>\$0.5</b>	<b>\$0.4</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

**ITEM DESCRIPTION/JUSTIFICATION:**

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.

- FY96 funds will procure 200 Block 0 and 10 Block I Missiles.
- FY97 funds will procure 135 Block 0 Missiles.
- FY98 funds will procure 60 Block 0 and 40 Block 1 Missiles.
- FY99 funds will procure 145 Block 1 Missiles.

**COOPERATIVE AGREEMENTS:**

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 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 General Dynamics by Hughes Aircraft Company was approved, making Hughes Missile Systems Co. the US prime contractor.

**P-1 SHOPPING LIST**

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**ITEM NO. 10**

# UNCLASSIFIED

WEAPONS PROCUREMENT, NAVY  
WEAPON SYSTEM COST ANALYSIS DATE: February 1997

MISSILE: ROLLING AIRFRAME MISSILE (RAM)		TOTAL COST IN THOUSANDS OF DOLLARS											
		FY 1996 (QTY 210)			FY 1997 (QTY 135)			FY 1998 (QTY 100)			FY 1999 (QTY 145)		
		QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
<b>MODEL: RIM 116A FLIGHT HARDWARE</b>				<b>57,744</b>			<b>41,222</b>			<b>40,301</b>			<b>53,090</b>
G&CA (INCLUDING I & A)	EF001	200	235.6	47,126	135	266.7	36,000	60	307.8	18,466			
BLOCK 1	EF001	10	432.6	4,326				40	414.3	16,573	145	316.8	45,936
BLOCK 1	EF001												
BLOCK 1 RETROFIT KITS	EF001												
COMPONENT IMPROVEME	EF850			432			736			597			479
PROPULSION	EF002	210	8.0	1,684	135	7.4	1,001	100	8.1	810	145	8.3	1,200
ORDNANCE PACK (TD)	EF005	210	11.3	2,383	135	22.3	3,010	100	33.5	3,350	145	25.5	3,700
WARHEAD	EF006	170	2.4	411	135	2.4	325	100	2.6	255	115	2.8	317
SAFE & ARM DEVICE	EF004				82	1.8	150	100	2.5	250	115	2.6	302
TELEMETER for BLOCK 0	EF010	30	36.1	1,083							30	38.5	1,156
TELEMETER for BLOCK 1	EF010	10	29.9	299									
<b>PROCUREMENT SUPPORT</b>				<b>2,586</b>			<b>3,421</b>			<b>3,651</b>			<b>3,728</b>
CONTRACTOR ENGINEER	EF830						336			626			639
GOVT IN-HOUSE ENGINEE	EF830			1,988			2,500			2,500			2,553
PRODUCTION ACCEPTANC	EF860			598			585			525			536
<b>TOTAL RECURRING FLYWAY</b>		<b>210</b>	<b>287.3</b>	<b>60,330</b>	<b>135</b>	<b>330.7</b>	<b>44,643</b>	<b>100</b>	<b>439.5</b>	<b>43,952</b>	<b>145</b>	<b>391.8</b>	<b>56,818</b>
<b>NON-RECURRING PROC SUPT</b>				<b>252</b>			<b>2,882</b>						
TOOLS & TEST EQUIPMENT	EF950			252			2,882						
<b>TOTAL FLYAWAY COSTS</b>		<b>210</b>	<b>288.5</b>	<b>60,582</b>	<b>135</b>	<b>352.0</b>	<b>47,525</b>	<b>100</b>	<b>439.5</b>	<b>43,952</b>	<b>145</b>	<b>391.8</b>	<b>56,818</b>
<b>FLEET SUPPORT COSTS</b>				<b>761</b>			<b>120</b>			<b>130</b>			<b>132</b>
ILS	EF974						120			130			132
CONTAINERS	EF957	300	2.5	761									
<b>TOTAL MISSILE COSTS</b>		<b>210</b>	<b>292.1</b>	<b>61,343</b>	<b>135</b>	<b>352.9</b>	<b>47,645</b>	<b>100</b>	<b>440.8</b>	<b>44,082</b>	<b>145</b>	<b>392.8</b>	<b>56,950</b>
CURRENT CONTROL				61,343			47,645			44,082			56,950
INITIAL SPARES				460			1,180			1,100			2,230
<b>TOTAL PROGRAM</b>				<b>61,803</b>			<b>48,825</b>			<b>45,182</b>			<b>59,180</b>

P-1 SHOPPING LIST

CLASSIFICATION

ITEM NO. 10 PAGE 2

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# UNCLASSIFIED

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## BUDGET PROCUREMENT HISTORY AND PLANNING

DATE: February 1997

P-5A

APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE				SUBHEAD		
<b>WEAPONS PROCUREMENT, NAVY</b>					<b>RAM MISSILE</b>				<b>12EF</b>		
<b>BA-2 OTHER MISSILES</b>											
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
EF001	<b>GUIDANCE &amp; CONTROL ASSEMBLY</b>										
	FY 1996										
	BLOCK 0 MISSILES	HMSC, TUCSON, AZ	SS/FP	NAVSEA	2/96	10/97	200	235.6	YES	NO	
	BLOCK 1 MISSILES	HMSC, TUCSON, AZ	SS/CPIF	NAVSEA	3/97	4/98	10	432.6	YES	NO	
	FY 1997										
	BLOCK 0 MISSILES	HMSC, TUCSON, AZ	OPTION	NAVSEA	10/96	10/98	135	266.7	YES	NO	
	FY 1998										
BLOCK 0 MISSILES	HMSC, TUCSON, AZ	SS/FP	NAVSEA	1/98	10/99	60	307.8	YES	NO		
BLOCK 1 MISSILES	HMSC, TUCSON, AZ	SS/FP	NAVSEA	1/98	10/99	40	414.3				
FY 1999											
BLOCK 1 MISSILES	HMSC, TUCSON, AZ	OPTION	NAVSEA	1/99	10/00	145	316.8	YES	NO		
EF002	<b>PROPULSION ROCKET MOTOR MK112/1 W/ ARMING &amp; FIRING DEVICE MK 298/1</b>										
	FY 1996	ATLANTIC RESEARCH	C/FP	NAVAIR	2/96	8/97	210	8.0	YES	NO	
	FY 1997	ATLANTIC RESEARCH	C/FP	NAVAIR	3/97	9/98	135	7.4	YES	NO	
	FY 1998	COMPETITIVE	C/FP	NAVAIR	2/98	10/99	100	8.1	YES	NO	
	FY 1999	COMPETITIVE	C/FP	NAVAIR	2/99	10/00	145	8.3	YES	NO	
EF005	<b>ORDNANCE PACKAGE TARGET DETECTOR MK 20/0</b>										
	FY 1996	HMSC, TUCSON, AZ	SS/CPIF	NAVSEA	12/96	2/98	210	11.3	YES	NO	
	FY 1997	HMSC, TUCSON, AZ	SS/CPIF	NAVSEA	12/96	10/98	135	22.3	YES	NO	
	FY 1998	COMPETITIVE	C/FP	NAVSEA	2/98	10/99	100	33.5	YES	NO	
	FY 1999	OPTION	C/FP	NAVSEA	2/99	10/00	145	25.5	YES	NO	

REMARKS

# UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING									DATE: February 1997		
P-5A											
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE				SUBHEAD		
WEAPONS PROCUREMENT, NAVY					RAM MISSILE				12EF		
BA-2 OTHER MISSILES											
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
EF004	SAFE & ARM MK 13/2										
	FY 1995	PIQUA	C/FP	NAVAIR	7/95	8/96	240	2.2	YES	NO	
	FY 1997	RAYMOND ENGIN	C/FP	NAVAIR	1/97	7/97	82	1.8	YES	NO	
	FY 1998	COMPETITIVE	C/FP	NAVAIR	3/98	9/99	100	2.5	YES	NO	
	FY 1999	COMPETITIVE	C/FP	NAVAIR	3/99	9/00	115	2.6	YES	NO	
EF006	WARHEAD WDU 17/8										
	FY 1996	ENSIGN BICKFORD	C/FP	NAVAIR	1/96	1/97	170	2.4	YES	NO	
	FY 1997	COMPETITIVE	C/FP	NAVAIR	8/97	2/99	135	2.4	YES	NO	
	FY 1998	COMPETITIVE	C/FP	NAVAIR	2/98	7/99	100	2.6	YES	NO	
	FY 1999	COMPETITIVE	C/FP	NAVAIR	2/99	7/00	115	2.8	YES	NO	
EF010	TELEMETER										
	FY 1996										
	BLOCK 0 TELEMETER	RAMSYS	C/FP	NAVSEA	09/96	1/98	30	36.1	YES	NO	
	BLOCK 1 TELEMETER	SOLE SOURCE	P.O.	NAWC/CL	10/95	10/96	10	29.9	YES	NO	
	FY 1999										
	BLOCK 0 TELEMETER	COMPETITIVE	C/FP	NAVSEA	2/99	10/00	30	38.5	YES	NO	
EF957	CONTAINERS										
	FY 1996	COMPETITIVE	C/FP	NAVSEA	9/96	8/97	300	2.5	YES	NO	
REMARKS											





CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 1997	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA2 - Other Missiles						P-1 ITEM NOMENCLATURE PENGUIN (J2GS) (PEO(CU))					
	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	101	0	0	0	0	0	0	0	0	0	101
COST (\$M)	\$158.2	\$0.0	\$6.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$165.1
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)	\$164.6	\$0.0	\$6.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$171.5
Unit Cost (\$M)	\$1.630	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.932
<p>The Penguin missile system is an Anti-Ship Missile, manufactured in Norway by Kongsberg 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 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 weapon system to meet customer requirements and to support fleet operations. To date, the program requirement is for 193 All-Up-Round (AUR) missiles and the Navy has procured a total of 101 AUR missiles. The planned number of Penguin capable helos and ships is 188 and 64, respectively. The last Penguin AUR missile buy for the Navy was FY 1992.</p> <p>Funding provided in FY 1997 will allow for the procurement of six Penguin training missiles through Kongsberg Aerospace, with a contract award date of April 1997. These units will allow pilots to maintain proficiency in the use of this weapon. No Navy procurement is planned in FY 1998 and out.</p>											

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

Missile Nomenclature & Popular: PENGUIN

Date: Feb 1997

Cost Elements	FY 1996			FY 1997			FY 1998			FY 1999		
	Quantity	Unit Cost	Total Cost									
<u>Missile Hardware</u>												
HMB/SYS ENGR/DATA												
ECO												
SLAM UNIQUE												
ENGINE												
WARHEAD												
WINGS & FINS												
Total Hardware					0.000	0.000						
<u>Procurement Support</u>												
GOVT IN-HOUSE						0.000						
Total Procurement Support						0.000						
Total Flyaway Cost					0.000	0.000						
<u>Fleet Support</u>												
TRAINING EQUIPMENT						6.513						
FIELD ACTIVITY SUPPORT						0.342						
ILS SERVICES						0.000						
Total Fleet Support						6.855						
Weapon System Cost					0.000	6.855						
Modifications						0.000						
Initial Spares			0.000			0.000			0.000			0.000
Total Program Cost			0.000		0.000	6.855			0.000			0.000

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: FEBRUARY 1997	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles					P-1 ITEM NOMENCLATURE AERIAL TARGETS			
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (In Millions)	\$70.0	\$71.3	\$72.9	\$82.0	\$86.7	\$99.3	\$104.6	\$116.5
PROGRAM COVERAGE:  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.								
JUSTIFICATION OF BUDGET YEAR REQUIREMENTS:  In Fiscal Years 1998 and 1999, major efforts include the procurement of the AQM-37C/D high altitude supersonic subscale targets, the BQM-74E subsonic subscale targets, the MA-31 supersonic sea skimming targets, the MQM-8G(EER) Vandal targets (converted TALOS missiles), and Foreign Non-Developmental Item (NDI) supersonic and subsonic targets. 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.								

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CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS								B. DATE		
P-5								FEBRUARY 1997		
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE/SUBHEAD					
WEAPONS PROCUREMENT, NAVY/BA-2 OTHER MISSILES					AERIAL TARGETS/J2EM					
COST CODE	ELEMENT OF COST	IDENT CODE	FY 1996		FY 1997		FY 1998		FY 1999	
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
EM010	BQM-34S	A	0	\$4,111	0	\$2,386	0	\$0	0	\$0
EM020	AQM-37C/D	A	70	\$15,226	110	\$20,802	35	\$11,500	35	\$10,320
EM030	BQM SUBSONIC SUBSCALE	A	120	\$31,192	120	\$34,337	133	\$36,378	165	\$41,849
EM200	OTHER TARGETS	B (1)	6	\$4,266		\$0	12	\$11,808	11	\$11,303
EM300	TA/AS	A		\$15,187		\$13,810		\$13,237		\$18,503
<b>TOTAL</b>			<b>196</b>	<b>\$69,982</b>	<b>230</b>	<b>\$71,335</b>	<b>180</b>	<b>\$72,923</b>	<b>211</b>	<b>\$81,975</b>
SPARES (2)										
	BQM-34S			\$7,601		\$859		\$0		\$0
	AQM-37C/D			\$0		\$0		\$0		\$210
	BQM SUBSONIC SUBSCALE			\$154		\$0		\$0		\$260
	OTHER TARGETS			\$0		\$0		\$0		\$0
	TA/AS			\$250		\$0		\$300		\$108
	TOTAL SPARES			\$8,005		\$859		\$300		\$578
<b>TOTAL PROGRAM</b>			<b>196</b>	<b>\$77,987</b>	<b>230</b>	<b>\$72,194</b>	<b>180</b>	<b>\$73,223</b>	<b>211</b>	<b>\$82,553</b>

P-1 SHOPPING LIST  
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CLASSIFICATION:

**UNCLASSIFIED**

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

(2) 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 1997

TARGET SYSTEM <b>BQM-34S</b>	FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
MANUFACTURER: TELEDYNE RYAN, SAN DIEGO, CA	UNIT	TOTAL	QTY	UNIT	TOTAL	QTY	UNIT	TOTAL	QTY	UNIT	TOTAL	
COST CODE: EM010 FLYAWAY COST (\$000)	COST	COST		COST	COST		COST	COST		COST	COST	
<b>HARDWARE:</b>												
TARGET	0	\$0	0		\$0	0		\$0	0		\$0	
GFM (1)		\$0			\$400			\$0			\$0	
TECHNICAL DATA PACKAGE		\$0			\$0			\$0			\$0	
INSTALL/MISSION KITS		\$1,208			\$0			\$0			\$0	
<b>TOTAL HARDWARE</b>	<b>0</b>	<b>\$1,208</b>	<b>0</b>		<b>\$400</b>	<b>0</b>		<b>\$0</b>	<b>0</b>		<b>\$0</b>	
<b>PROCUREMENT SUPPORT (RECURRING):</b>												
CONTRACTOR ENGINEERING		\$0			\$0			\$0			\$0	
GOVERNMENT IN-HOUSE		\$1,752			\$665			\$0			\$0	
DOCUMENTATION		\$198			\$150			\$0			\$0	
GOVERNMENT TEST		\$125			\$440			\$0			\$0	
OTHER		\$0			\$0			\$0			\$0	
<b>TOTAL RECURRING</b>		<b>\$2,075</b>			<b>\$1,255</b>			<b>\$0</b>			<b>\$0</b>	
<b>PROCUREMENT SUPPORT (NONRECURRING):</b>												
PRODUCT IMPROVEMENT		\$0			\$0			\$0			\$0	
SPECIAL TOOLING AND TEST EQUIPMENT		\$0			\$0			\$0			\$0	
<b>TOTAL NONRECURRING</b>		<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>	
<b>TOTAL FLYAWAY</b>	<b>0</b>	<b>\$0</b>	<b>\$3,283</b>	<b>0</b>	<b>\$0</b>	<b>\$1,655</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	
<b>GROUND EQUIPMENT/FLEET SUPPORT COST:</b>												
GROUND EQUIPMENT		\$225			\$300			\$0			\$0	
INSTALL & CHECKOUT		\$0			\$0			\$0			\$0	
SPECIAL HANDLING EQUIPMENT		\$0			\$0			\$0			\$0	
FLEET TEST EQUIPMENT		\$0			\$0			\$0			\$0	
TRAINING DEVICES		\$75			\$20			\$0			\$0	
DOCUMENTATION		\$0			\$0			\$0			\$0	
ILS		\$528			\$411			\$0			\$0	
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>		<b>\$828</b>			<b>\$731</b>			<b>\$0</b>			<b>\$0</b>	
<b>WEAPONS SYSTEM COST</b>	<b>0</b>	<b>\$0</b>	<b>\$4,111</b>	<b>0</b>	<b>\$0</b>	<b>\$2,386</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	
TARGETS INITIAL SPARES		\$7,601			\$859			\$0			\$0	
<b>TOTAL PROGRAM COST</b>	<b>0</b>	<b>\$0</b>	<b>\$11,712</b>	<b>0</b>	<b>\$0</b>	<b>\$3,245</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	

P-1 SHOPPING LIST

(1) HERO safe cartridge activating devices.

UNCLASSIFIED

**WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)**

FEBRUARY 1997

TARGET SYSTEM	FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
MANUFACTURER: RAYTHEON AIRCRAFT, WICHITA, K	UNIT	TOTAL										
COST CODE: EM020 FLYAWAY CO:	QTY	COST										
HARDWARE:												
TARGET	70	\$124	\$8,708	110	\$124	\$13,659	35	\$154	\$5,387	35	\$156	\$5,453
GFM-BATTERIES			\$182			\$293			\$92			\$94
* GFM-IRFNA			\$273			\$439			\$143			\$146
INSTALL/MISSION KITS			\$715			\$1,691			\$550			\$562
** EXTENDED PERFORMANCE KITS			\$0			\$1,111			\$1,167			\$1,179
<b>TOTAL HARDWARE</b>	<b>70</b>	<b>\$141</b>	<b>\$9,878</b>	<b>110</b>	<b>\$156</b>	<b>\$17,193</b>	<b>35</b>	<b>\$210</b>	<b>\$7,339</b>	<b>35</b>	<b>\$212</b>	<b>\$7,434</b>
PROCUREMENT SUPPORT (RECURRING):												
GOVERNMENT IN-HOUSE			\$2,021			\$1,435			\$1,309			\$1,466
DOCUMENTATION			\$424			\$275			\$251			\$281
GOVERNMENT TEST			\$206			\$475			\$117			\$131
<b>TOTAL RECURRING</b>			<b>\$2,651</b>			<b>\$2,185</b>			<b>\$1,677</b>			<b>\$1,878</b>
PROCUREMENT SUPPORT (NONRECURRING):												
PRODUCT IMPROVEMENT		***	\$2,363		****	\$425		*****	\$1,932			\$0
SPECIAL TOOLING AND TEST EQUIPMENT			\$0			\$0			\$0			\$0
<b>TOTAL NONRECURRING</b>			<b>\$2,363</b>			<b>\$425</b>			<b>\$1,932</b>			<b>\$0</b>
<b>TOTAL FLYAWAY</b>	<b>70</b>	<b>\$213</b>	<b>\$14,892</b>	<b>110</b>	<b>\$180</b>	<b>\$19,803</b>	<b>35</b>	<b>\$313</b>	<b>\$10,948</b>	<b>35</b>	<b>\$266</b>	<b>\$9,312</b>
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			\$0			\$0			\$0			\$0
TRAINING DEVICES			\$29			\$29			\$30			\$31
DOCUMENTATION			\$0			\$400			\$0			\$395
ILS			\$305			\$570			\$522			\$582
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>			<b>\$334</b>			<b>\$999</b>			<b>\$552</b>			<b>\$1,008</b>
<b>WEAPONS SYSTEM COST</b>	<b>70</b>	<b>\$218</b>	<b>\$15,226</b>	<b>110</b>	<b>\$189</b>	<b>\$20,802</b>	<b>35</b>	<b>\$329</b>	<b>\$11,500</b>	<b>35</b>	<b>\$295</b>	<b>\$10,320</b>
TARGETS INITIAL SPARES			\$0			\$0			\$0			\$210
<b>TOTAL PROGRAM COST</b>	<b>70</b>	<b>\$218</b>	<b>\$15,226</b>	<b>110</b>	<b>\$189</b>	<b>\$20,802</b>	<b>35</b>	<b>\$329</b>	<b>\$11,500</b>	<b>35</b>	<b>\$301</b>	<b>\$10,530</b>

P-1 SHOPPING LIST

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\* Inhibited Red Fuming Nitric Acid.

\*\* 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. Approximately 30 kits will be procured each year.

\*\*\* FY 96 - non-recurring engineering associated with an avionics upgrade (obsolete components no longer commercially available).

\*\*\*\* FY 97 - software changes/power supply.

\*\*\*\*\* FY 98 - avionics upgrade ECP.

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**WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)**

FEBRUARY 1997

TARGET SYSTEM <b>BQM SUBSONIC SUBSCALE</b> MANUF: NORTHROP-GRUMMAN COST CODE: EM030 FLYAWAY COST (\$	FISCAL YEAF 1996			FISCAL YEAF 1997			FISCAL YEAF 1998			FISCAL YEAF 1999		
	QTY	UNIT COST	TOTAL COST									
<b>HARDWARE:</b>												
TARGET	120	\$218	\$26,190	120	\$228	\$27,408	133	\$231	\$30,670	165	\$212	\$34,997
INSTALL/MISSION KITS			\$2,610			\$3,806			\$3,679			\$4,575
<b>TOTAL HARDWARE</b>	<b>120</b>	<b>\$240</b>	<b>\$28,800</b>	<b>120</b>	<b>\$260</b>	<b>\$31,214</b>	<b>133</b>	<b>\$258</b>	<b>\$34,349</b>	<b>165</b>	<b>\$240</b>	<b>\$39,572</b>
<b>PROCUREMENT SUPPORT (RECURRING):</b>												
GOVERNMENT IN-HOUSE			\$1,766			\$1,350			\$1,230			\$1,392
DOCUMENTATION			\$114			\$164			\$152			\$171
GOVERNMENT TEST			\$0			\$204			\$49			\$55
<b>TOTAL RECURRING</b>			<b>\$1,880</b>			<b>\$1,718</b>			<b>\$1,431</b>			<b>\$1,618</b>
<b>PROCUREMENT SUPPORT (NONRECURRING):</b>												
PRODUCT IMPROVEMENT (1)			\$0			\$750			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT			\$0			\$0			\$0			\$0
<b>TOTAL NONRECURRING</b>			<b>\$0</b>			<b>\$750</b>			<b>\$0</b>			<b>\$0</b>
<b>TOTAL FLYAWAY</b>	<b>120</b>	<b>\$256</b>	<b>\$30,680</b>	<b>120</b>	<b>\$281</b>	<b>\$33,682</b>	<b>133</b>	<b>\$269</b>	<b>\$35,780</b>	<b>165</b>	<b>\$250</b>	<b>\$41,190</b>
<b>GROUND EQUIPMENT/FLEET SUPPORT COST:</b>												
GROUND EQUIPMENT			\$125			\$0			\$0			\$0
INSTALL & CHECKOUT			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT			\$0			\$0			\$0			\$0
TRAINING DEVICES			\$33			\$34			\$35			\$36
DOCUMENTATION			\$0			\$0			\$0			\$0
ILS			\$354			\$621			\$563			\$623
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>			<b>\$512</b>			<b>\$655</b>			<b>\$598</b>			<b>\$659</b>
<b>WEAPONS SYSTEM COST</b>	<b>120</b>	<b>\$260</b>	<b>\$31,192</b>	<b>120</b>	<b>\$286</b>	<b>\$34,337</b>	<b>133</b>	<b>\$274</b>	<b>\$36,378</b>	<b>165</b>	<b>\$254</b>	<b>\$41,849</b>
TARGETS INITIAL SPARES			\$154			\$0			\$0			\$260
<b>TOTAL PROGRAM COST</b>	<b>120</b>	<b>\$261</b>	<b>\$31,346</b>	<b>120</b>	<b>\$286</b>	<b>\$34,337</b>	<b>133</b>	<b>\$274</b>	<b>\$36,378</b>	<b>165</b>	<b>\$255</b>	<b>\$42,109</b>

P-1 SHOPPING LIST

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(1) FY-97 non-recurring engineering associated with ECP-182 (payload restructure).

UNCLASSIFIED

**WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)**

FEBRUARY 1997

TARGET SYSTEM: OTHER TARGETS	FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
MANUF: VARIOUS	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
COST CODE: EM200 FLYAWAY COST (\$0												
<b>HARDWARE:</b>												
MQM-8G(EER) VANDAL	6	\$434	\$2,604	0		\$0	6	\$457	\$2,741	0		\$0
MA-31 (1)	0		\$0	0		\$0	0		\$0	6	\$397	\$2,382
HARPOON TARGET	0		\$0	0		\$0	0		\$0	0		\$0
FOREIGN NDI - SUPERSONIC	0		\$0	0		\$0	3	\$1,491	\$4,473	2	\$1,491	\$2,982
FOREIGN NDI - SUBSONIC	0		\$0	0		\$0	3	\$1,491	\$4,473	3	\$1,491	\$4,473
ANCILLARY EQUIP			\$396			\$0			\$0			\$0
<b>TOTAL HARDWARE</b>	<b>6</b>	<b>\$500</b>	<b>\$3,000</b>			<b>\$0</b>	<b>12</b>		<b>\$11,687</b>	<b>11</b>		<b>\$9,837</b>
<b>PROCUREMENT SUPPORT (RECURRING):</b>												
GOVERNMENT IN-HOUSE			\$649			\$0			\$121			\$915
DOCUMENTATION			\$0			\$0			\$0			\$39
GOVERNMENT TEST			\$300			\$0			\$0			\$0
<b>TOTAL RECURRING</b>			<b>\$949</b>			<b>\$0</b>			<b>\$121</b>			<b>\$954</b>
<b>PROCUREMENT SUPPORT (NONRECURRING):</b>												
PRODUCT IMPROVEMENT			\$0			\$0			\$0			\$0
CONTRACTOR ENGINEERING			\$0			\$0			\$0			\$0
TOOLING			\$0			\$0			\$0			\$0
TEST EQUIPMENT			\$0			\$0			\$0			\$0
<b>TOTAL NONRECURRING</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>
<b>TOTAL FLYAWAY</b>	<b>6</b>	<b>\$658</b>	<b>\$3,949</b>			<b>\$0</b>	<b>12</b>		<b>\$11,808</b>	<b>11</b>		<b>\$10,791</b>
<b>GROUND EQUIPMENT/FLEET SUPPORT COST:</b>												
GROUND EQUIPMENT			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT			\$0			\$0			\$0			\$0
TOOLING			\$0			\$0			\$0			\$0
TEST EQUIPMENT			\$0			\$0			\$0			\$512
TRAINING DEVICES			\$64			\$0			\$0			\$0
DOCUMENTATION			\$0			\$0			\$0			\$0
ILS			\$253			\$0			\$0			\$0
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>			<b>\$317</b>			<b>\$0</b>			<b>\$0</b>			<b>\$512</b>
<b>WEAPONS SYSTEM COST</b>	<b>6</b>	<b>\$711</b>	<b>\$4,266</b>			<b>\$0</b>	<b>12</b>		<b>\$11,808</b>	<b>11</b>		<b>\$11,303</b>
TARGETS INITIAL SPARES			\$0			\$0			\$0			\$0
<b>TOTAL PROGRAM COST</b>	<b>6</b>	<b>\$711</b>	<b>\$4,266</b>			<b>\$0</b>	<b>12</b>		<b>\$11,808</b>	<b>11</b>		<b>\$11,303</b>

P-1 SHOPPING LIST

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(1) MA-31 RDT&E PE 0604258N and FCT PE 0605130D

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**WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)**

FEBRUARY 1997

TARGET SYSTEM TA/AS MANUFACTURER: VARIOUS COST CODE: EM300 FLYAWAY COST (\$)	FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
	QTY	UNIT COST	TOTAL COST									
<b>HARDWARE:</b>												
CDM/CONTROL EQUIPMENT			\$1,632			\$510			\$0			\$4,768
SCORING EQUIPMENT			\$2,500			\$2,000			\$2,322			\$2,084
LOCATION/ID EQUIP			\$298			\$48			\$1,604			\$1,760
ECM/EMITTER EQUIP			\$4,693			\$4,921			\$4,282			\$4,703
AUGMENT/NAVIGAT EQUIP			\$305			\$853			\$868			\$407
INSTALL/MISSION EQUIP			\$495			\$508			\$519			\$535
MOBILE SEA RANGE			\$270			\$0			\$0			\$0
<b>TOTAL HARDWARE</b>			<b>\$10,193</b>			<b>\$8,840</b>			<b>\$9,595</b>			<b>\$14,257</b>
<b>PROCUREMENT SUPPORT (RECURRING):</b>												
GOVERNMENT IN-HOUSE			\$3,034			\$3,078			\$2,558			\$2,988
DOCUMENTATION			\$12			\$0			\$0			\$0
GOVERNMENT TEST			\$164			\$0			\$0			\$0
<b>TOTAL RECURRING</b>			<b>\$3,210</b>			<b>\$3,078</b>			<b>\$2,558</b>			<b>\$2,988</b>
<b>PROCUREMENT SUPPORT (NONRECURRING):</b>												
* PRODUCT IMPROVEMENT			\$0			\$860			\$0			\$0
TOOLING			\$0			\$0			\$0			\$0
TEST EQUIPMENT			\$0			\$0			\$0			\$0
<b>TOTAL NONRECURRING</b>			<b>\$0</b>			<b>\$860</b>			<b>\$0</b>			<b>\$0</b>
<b>TOTAL FLYAWAY</b>			<b>\$13,403</b>			<b>\$12,778</b>			<b>\$12,153</b>			<b>\$17,245</b>
<b>GROUND EQUIPMENT/FLEET SUPPORT COST:</b>												
GROUND EQUIPMENT			\$345			\$0			\$0			\$0
INSTALL & CHECKOUT			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT			\$0			\$0			\$0			\$0
TOOLING			\$0			\$0			\$0			\$0
TEST EQUIPMENT			\$445			\$0			\$0			\$0
TRAINING DEVICES			\$68			\$25			\$25			\$25
DOCUMENTATION			\$0			\$0			\$0			\$0
ILS			\$926			\$1,007			\$1,059			\$1,233
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>			<b>\$1,784</b>			<b>\$1,032</b>			<b>\$1,084</b>			<b>\$1,258</b>
<b>WEAPONS SYSTEM COST</b>			<b>\$15,187</b>			<b>\$13,810</b>			<b>\$13,237</b>			<b>\$18,503</b>
TARGETS INITIAL SPARES			\$250			\$0			\$300			\$108
<b>TOTAL PROGRAM COST</b>			<b>\$15,437</b>			<b>\$13,810</b>			<b>\$13,537</b>			<b>\$18,611</b>

P-1 SHOPPING LIST

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\* FY-97 non-recurring engineering for GSQ-228 ground stations (replacing obsolete components).

UNCLASSIFIED

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE <b>FEB 1997</b>	
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/ 2; Other Missiles</b>				C. P-1 ITEM NOMENCLATURE <b>AERIAL TARGETS</b>				SUBHEAD <b>J2EM</b>		
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (\$000)	SPECS AVAILABLE NOW	SPEC REV/ REQ'D	IF YES WHEN AVAILABLE
AQM-37C/FY-96	Raytheon A/C, Wichita, KS (1)	C/Option	NAVAIR	FEB 96	JUN 97	70	124			
AQM-37C/FY-97	Raytheon A/C, Wichita, KS (1)	C/Option	NAVAIR	FEB 97	JUN 98	110	124			
AQM-37C/FY-98	Raytheon A/C, Wichita, KS (1)	C/Option	NAVAIR	FEB 98	JUN 99	35	154	Yes	No	
AQM-37D/FY-99 (2)	Raytheon A/C, Wichita, KS (1)	SS/FP	NAVAIR	FEB 99	JUN 00	35	156	Yes	Yes	May 98
BQM-74E/FY-96	Northrop-Grumman, Hawthorne, C	C/FP	NAVAIR	APR 96	JUL 97	120	218			
BQM-74E/FY-97	Northrop-Grumman, Hawthorne, C	C/Option	NAVAIR	FEB 97	MAY 98	120	228			
BQM-74E/FY-98	Northrop-Grumman, Hawthorne, C	C/Option	NAVAIR	FEB 98	APR 99	133	231	Yes	No	
BQM-74E/FY-99	Northrop-Grumman, Hawthorne, C	C/Option	NAVAIR	FEB 99	APR 00	165	212	Yes	No	
MQM-8G(EER)/FY-95	Allied-Signal, Mishawaka, IN	SS/FP	NAWC, Point Mugu	APR 95	MAR 96	24	434(3)			
MQM-8G(EER)/FY-96	Allied-Signal, Mishawaka, IN	SS/Option(3)	NAWC, Point Mugu	JUL 96	OCT 97	6	434(3)			
MQM-8G(EER)/FY-98	Allied-Signal, Mishawaka, IN	SS/FP	NAWC, Point Mugu	FEB 98	MAR 99	6	457	Yes	No	
MA-31/FY-99	McDonnell Douglas, St. Louis, MO	SS/Option(4)	NAVAIR	DEC 98	JUL 99	6	397	No	Yes	JUL 97
Foreign NDI-Supersonic/FY-98	CLASSIFIED	FP	NSMA	FEB 98	NOV98	3	1,491	N/A		
Foreign NDI-Supersonic/FY-99	CLASSIFIED	Option	NSMA	FEB 99	NOV99	2	1,491	N/A		
Foreign NDI-Subsonic/FY-98	CLASSIFIED	FP	NSMA	FEB 98	NOV98	3	1,491	N/A		
Foreign NDI-Subsonic/FY-99	CLASSIFIED	Option	NSMA	FEB 99	NOV99	3	1,491	N/A		
D. REMARKS										
(1) Formally known as Beech Aircraft Corporation. (2) The FY-99 AQM-37D version will include the updated avionics system (old system will be replaced due to obsolete components). (3) The MQM-8G(EER) unit price includes the incorporation of the Inertia Measurement Unit (a reliability improvement). (4) Option modification to FY 1996 R&D procurement (A0610). (5) Option on development contract.										





CLASSIFICATION:

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Exhibit P-20, Requirements Study			APPROPRIATION/BUDGET ACTIVITY				DATE:	
P-1 ITEM NOMENCLATURE			Admin Leadtime (after Oct1):				Prod Leadtime :	
<b>AQM-37C/D (Aerial Targets)</b>			<b>4 Months</b>				<b>16 Months</b>	
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Buy Summary	70	110	35	35	35	45	65	85
Unit Cost (Vehicle)	.12	.12	.15	.16	.16	.16	.15	.15
Total Cost	\$8.7	####	\$5.4	\$5.5	\$5.6	\$7.0	\$9.7	####
<b>Asset Dynamics</b>								
Beginning Asset Position	97	118	122	136	157	127	97	68
Deliveries from all prior year funding	114	94	48					
Deliveries from FY 1997 funding			36	74				
Deliveries from FY 1998 funding				12	23			
Deliveries from FY 1999 funding					12	23		
Deliveries from subsequent years' funding						12	36	52
Other Gains								
Combat Losses/Usage								
Training/Test/Other Losses/Usage	93	90	70	65	65	65	65	65
Disposals/Retirements/Attritions/etc.								
<b>End of Year Asset Position</b>	118	122	136	157	127	97	68	55
Inventory Objective:								
Combatant Shipfill								
Expenditures								
Training & Testing Rqmt								
Depot Maint. Pipeline								
Other-WSPD of DEC 95	140	140	140	140	140	140	140	140
Peacetime Pipeline								
TOTAL Inventory Objective:								
Approved Acquisition Objective	140	140	140	140	140	140	140	140
Remarks:								
Other than Training Usage	Actual Training Expenditures							
FY 1997 thru 12/31/96 0	FY 1997 thru 12/31/96: 13							
FY 1996: 35	FY 1996: 58							
FY 1995: 27	FY 1995: 69							
FY 1994: 22	FY 1994: 92							
FY 1993: 34	FY 1993: 67							

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CLASSIFICATION:

**UNCLASSIFIED**

Exhibit P-20, Requirements Study		APPROPRIATION/BUDGET ACTIVITY WPN/BA-2					DATE: <b>FEBRUARY 1997</b>		
P-1 ITEM NOMENCLATURE <b>BQM-74E (Aerial Targets)</b>		Admin Leadtime (after Oct1): <b>4 Months</b>			Prod Leadtime : <b>14 Months</b>				
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	
Buy Summary	120	120	133	165	160	180	180	180	
Unit Cost (Vehicle)	.22	.23	.23	.21	.22	.22	.22	.23	
Total Cost	\$26.2	####	####	\$35.0	####	####	\$40.4	####	
<b>Asset Dynamics</b>									
Beginning Asset Position	247	247	211	194	171	206	225	248	
Deliveries from all prior year funding	157	119	84						
Deliveries from FY 1997 funding			54	66					
Deliveries from FY 1998 funding				66	67				
Deliveries from FY 1999 funding					123	42			
Deliveries from subsequent years' funding						132	178	150	
Other Gains									
Combat Losses/Usage									
Training/Test/Other Losses/Usage	157	155	155	155	155	155	155	155	
Disposals/Retirements/Attritions/etc.									
<b>End of Year Asset Position</b>	247	211	194	171	206	225	248	243	
Inventory Objective:									
Combatant Shipfill									
Expenditures									
Training & Testing Rqmt									
Depot Maint. Pipeline									
Other-WSPD of DEC 95	240	240	240	240	240	240	240	240	
Peacetime Pipeline									
TOTAL Inventory Objective:									
Approved Acquisition Objective	240	240	240	240	240	240	240	240	
Remarks:									
Other than Training Usage	Actual Training Expenditures								
FY 1997 thru 12/31/96 6	FY 1997 thru 12/31/96 17								
FY 1996:36	FY 1996:121								
FY 1995:31	FY 1995:124								
FY 1994:23	FY 1994:130								
FY 1993:34	FY 1993:127								

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CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET							DATE:	
P-40							FEBRUARY 1997	
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE			
Weapons Procurement, Navy					DRONES AND DECOYS			
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (In Millions)	\$0.0	\$17.1	\$0.3	\$0.3	\$0.0	\$0.0	\$0.0	\$0.0
<p>PROGRAM COVERAGE:</p> <p>All funding for Drones and Decoys from FY 1986 through 1990 has been used for continued procurement 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 launch 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 A-6, 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>Procurement of an Improved TALD, (ITALD), ADM-141C, using FY 1994/95 funds was awarded in September 1996 for a total quantity of 98 ITALDs. A follow-on procurement is planned for approximately 110 ITALDS using FY 1997 funds. The major improvement to this decoy is an engine that will give the decoy a much longer stand-off range.</p> <p>The FY 1998 and FY 1999 budget requests provide funding for production support efforts necessary to support final ITALD deliveries to Navy inventory.</p>								

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

FEBRUARY 1997

SYSTEM: ITALD MANUFACTURER: IMI LTD, RAMAT HASHARON, IS COST CODE: DJ010 FLYAWAY COST (\$000)	FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
	QTY	UNIT COST	TOTAL COST									
HARDWARE:												
ITALD	0		\$0	110	\$140	\$15,400	0		\$0	0		\$0
CONTAINERS			\$0		\$5	\$275	0		\$0	0		\$0
TOTAL HARDWARE	0	\$0	\$0	110	\$143	\$15,675	0		\$0	0		\$0
PROCUREMENT SUPPORT (RECURRING):												
CONTRACTOR ENGINEERING			\$0			\$0			\$0			\$0
GOVERNMENT IN-HOUSE			\$0			\$960			\$298			\$298
DOCUMENTATION			\$0			\$0			\$0			\$0
GOVERNMENT TESTING			\$0			\$500			\$0			\$0
OTHER			\$0			\$0			\$0			\$0
TOTAL RECURRING			\$0			\$1,460			\$298			\$298
PROCUREMENT SUPPORT (NONRECURRING):												
PRODUCT IMPROVEMENT			\$0			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT			\$0			\$0			\$0			\$0
TOTAL NONRECURRING			\$0			\$0			\$0			\$0
TOTAL FLYAWAY	0	\$0	\$0	110	\$156	\$17,135	0		\$298	0		\$298
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			\$0			\$0			\$0			\$0
TRAINING DEVICES			\$0			\$0			\$0			\$0
DOCUMENTATION			\$0			\$0			\$0			\$0
ILS			\$0			\$0			\$0			\$0
TOTAL GRD EQUIP/FLEET SUP COST			\$0			\$0			\$0			\$0
WEAPONS SYSTEM COST	0	\$0	\$0	110	\$156	\$17,135	0		\$298	0		\$298
INITIAL SPARES			\$0			\$0			\$0			\$0
TOTAL PROGRAM COST	0	\$0	\$0	110	\$156	\$17,135	0		\$298	0		\$298

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE <b>3 FEB 1997</b>	
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/2; Other Missiles</b>				C. P-1 ITEM NOMENCLATURE <b>Drones and Decoys</b>				SUBHEAD <b>J2DJ</b>		
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
ADM-141/CFY-94	Israeli Military Industries, Ramat Hasharon, IS	SS/FP	NAVAIR	SEP 96	JUL 98	81	195 (1)	Yes	No	N/A
ADM-141C/FY-95	Israeli Military Industries, Ramat Hasharon, IS	SS/FP	NAVAIR	SEP 96	MAR 98	17	318 (1)	Yes	No	N/A
ADM-141C/FY-97	Israeli Military Industries, Ramat Hasharon, IS	SS/FP	NAVAIR	OCT 97	APR 99	110	140	Yes	No	N/A
D. REMARKS <p style="text-align: center;">(1) FY-94 and FY-95 contracts were awarded concurrently. FY-95 funding was used for first article test units.</p>										



**FY 1998/99 BUDGET PRODUCTION SCHEDULE**

P-1 ITEM NOMENCLATURE

**DRONES AND DECOYS**

DATE

**FEBRUARY 1997**

ITEM/MANUFACTURER/ PROCUREMENT YEAR	FISCAL YEAR 1999											FISCAL YEAR 2000											FISCAL YEAR 2001											L A T E R						
	1998			CALENDAR YEAR 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	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			
ADM-141C/IMI/FY-94			15	20	20	25																																	0	
ADM-141C/IMI/FY-97							25	25	25	25	10																												0	
<b>TOTAL</b>	0	0	15	20	20	25	25	25	25	25	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	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				

REMARKS

CLASSIFICATION: **UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b> <b>P-40</b>	<b>DATE:</b> <b>February 1997</b>
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<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>WEAPONS PROCUREMENT, NAVY</b> <b>BA: 2 OTHER MISSILES</b>	<b>P-1 ITEM NOMENCLATURE</b>  <b>OTHER MISSILE SUPPORT (12FD) - 2290</b>
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	1996	1997	1998	1999	2000	2001	2002	2003
<b>QUANTITY</b>								
<b>COST (In Millions)</b>	\$12.3	\$17.7	\$18.3	\$18.8	\$17.6	\$21.4	\$22.7	\$23.3

The Vertical Launching System (VLS) is a missile launching system for surface combatants, designed to launch Standard Missile, TOMAHAWK 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 weapons 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. The major portion of the WPN funds is for the procurement of VLS canisters. A small amount of funds is required to provide VLS unique equipment to the weapons stations and to provide ILS for canisters procured with WPN funds. Prior to FY-96, canisters were also funded by SCN and OPN Appropriations.

P-1 SHOPPING LIST

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<b>WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)</b>	DATE: February 1997
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<b>Weapon System Cost Elements</b>	P-1 ITEM NOMENCLATURE/SUBHEAD  OTHER MISSILE SUPPORT (12FD) - 2290
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COST CODE	ELEMENT OF COST	IDENT CODE	TOTAL COST IN THOUSANDS OF DOLLARS										
			FY 1996		FY 1997		FY 1998		FY 1999				
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST			
	<u>VERTICAL LAUNCH SYSTEM</u>												
FD005	TYPE I CANISTERS SM-2 MR BLK III/IIIA/IIIB (MK-13)				80	3,339	91	5,214	79	4,787			
FD006	TYPE II CANISTERS TOMAHAWK (MK-14) SM-2 BLK IV (MK-21)		50	3,227 0	66	7,084	49	6,462	36	5,764			
FD009	CANISTER EQUIPMENT			700		570		638		1,200			
FD970	ILS SUPPORT			6,884		5,684		5,478		6,182			
FD980	INITIAL TRAINING SUPPORT			1,514		991		502		906			
	<b>TOTAL</b>			<b>12,325</b>		<b>17,668</b>		<b>18,294</b>		<b>18,839</b>			

CLASSIFICATION:

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BUDGET PROCUREMENT HISTORY AND PLANNING (P-5A)										DATE February 1997	
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY BA-2 OTHER MISSILES					P-1 ITEM NOMENCLATURE OTHER MISSILE SUPPORT				SUBHEAD 12FD		
COST CODE	LINE ITEM/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
FD005	<b>TYPE I CANISTERS</b> SM-2 MR BLK III/IIIA/IIIB (MK-13)										
	FY 95	United Defense FMC/BMY Minneapolis	C/FP OPT	NAVSEA	07/95	06/97	70	\$42.7	YES	NO	
	FY 97	United Defense FMC/BMY Minneapolis	C/FP OPT	NAVSEA	12/96	10/98	80	\$41.7	YES	NO	
	FY 98	United Defense FMC/BMY Minneapolis	SS	NAVSEA	01/98	10/99	91	\$57.3	YES	NO	
FY 99	United Defense FMC/BMY Minneapolis	C/FP OPT	NAVSEA	01/99	10/00	79	\$60.6	YES	NO		
FD006	<b>TYPE II CANISTERS</b> TOMAHAWK (MK-14)										
	FY 95	United Defense FMC/BMY Minneapolis	C/FP OPT	NAVSEA	07/95	06/97	12	57.4	YES	NO	
	FY 96	United Defense FMC/BMY Minneapolis	C/FP OPT	NAVSEA	07/96	01/98	50	\$64.5	YES	NO	
	FY 97	SM-2 BLK IV (MK-21) United Defense FMC/BMY Minneapolis	C/FP OPT	NAVSEA	12/96	10/98	66	\$107.3	YES	NO	
	FY 98	United Defense FMC/BMY Minneapolis	SS	NAVSEA	01/98	10/99	49	\$131.9	YES	NO	
FY 99	SM-2 BLK IVA (MK-21 MOD 1) United Defense FMC/BMY Minneapolis	C/FP OPT	NAVSEA	01/99	10/00	36	\$160.1	YES	NO		
REMARKS											

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P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO.-14

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**UNCLASSIFIED**





CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET							DATE:	
P-40							February 1997	
APPROPRIATION/BUDGET ACTIVITY				P-1 ITEM NOMENCLATURE				
<b>Weapons Procurement, Navy</b> <b>BA2/Other Missiles</b>				<b>TOMAHAWK MODS (J2DN)(PEO(CU)) (BLI: 230100)</b>				
	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003
QUANTITY	-	-	-	-	-	-	-	-
COST (\$M)	\$48.1	\$8.1	\$0.0	\$3.2	\$0.0	\$0.0	\$0.0	\$0.0
<p>Funds are required to procure modifications for the Tomahawk Cruise Missiles. The modifications will be installed on a "turnkey" basis during the normal recertification cycle of each missile at contractor depot facilities. As a result, installation costs are not priced separately from the hardware costs in this line. A detailed funding profile for these modification programs is provided below:</p>								
	<u>FY 1996</u>	<u>FY 1997</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>
BLU-97 Insensitive Munitions	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0
Tomahawk Remanufacture (1)	48.1	8.1	0.0	0.0	0.0	0.0	0.0	0.0
<p>(1) Funding in FY99 and beyond is in the WPN P-1 #5.</p>								

CLASSIFICATION: UNCLASSIFIED

P3A **INDIVIDUAL MODIFICATION**  
 MODIFICATION TITLE: **BLU-97 Insensitive Munitions**  
 MODELS OF SYSTEM AFFECTED: **R/UGM-109D**  
 DESCRIPTION/JUSTIFICATION:  
**Insensitive replacement for current BLU-97 bomblets of the Land Attack Submunitions Dispenser variant.**

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<b>FINANCIAL PLAN (IN MILLIONS)</b>																					
<i>RDT&amp;E</i>																				0	0.0
<b>PROCUREMENT</b>																					
INSTALLATION KITS	0	0.0	0	0.0	0	0.0	23904	3.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	23904	3.2	
INSTALLATION KITS (UNIT COST)	0.000		0.000		0.000		0.000*		0.000		0.000		0.000		0.000		0.000				
INSTALLATION KITS NONRECURRING EQUIPMENT																					0.0
EQUIPMENT NONRECURRING																					0.0
ENGINEERING CHANGE ORDERS																					0.0
DATA																					0.0
TRAINING DQUIPMENT																					0.0
SUPPORT EQUIPMENT																					0.0
OTHER																					0.0
INTERIM CONTRACTOR SUPPORT																					0.0
<b>INSTALLATION OF HARDWARE</b>																					
FY 1996 EQUIPMENT & PRIOR																				0	0.0
FY 1997 EQUIPMENT																				0	0.0
FY 1998 EQUIPMENT																				0	0.0
FY 1999 EQUIPMENT																				0	0.0
FY 2000 EQUIPMENT																				0	0.0
FY 2001 EQUIPMENT																				0	0.0
FY 2002 EQUIPMENT																				0	0.0
FY 2003 EQUIPMENT																				0	0.0
TO COMPLETE																				0	0.0
TOTAL INSTALLATION COST	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
TOTAL PROCUREMENT COST	0	0.0	0	0.0	0	0.0	23904	3.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	23904	3.2	
TOTAL COST	0.0		0.0		0.0		3.2		0.0		0.0		0.0		0.0		0.0		3.2		
METHOD OF IMPLEMENTATION:	Contractor Facilities (Depot)					ADMINISTRATIVE LEADTIME:					4	RODUCTION LEADTIME: 12									
CONTRACT DATE:	FY 199' N/A					FY 1998: N/A					FY 1999: Jan 99										
PRODUCTION DELIVER DATE:	FY 199' N/A					FY 1998: N/A					FY 1999: Jan 00										

\* Actual Unit Cost is \$134 dollars.

P-3A

CLASSIFICATION: UNCLASSIFIED

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

MODIFICATION TITLE: BLU-97 Insensitive Munitions

INSTALLATION SCHEDULE:

INPUT ==>	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								
FY 1996 & Prior	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5976	5976	5976	5976	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23904
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TO COMPLETE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TOTA 23904

OUTPUT ==>	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									
FY 1996 & Prior	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5976	5976	5976	5976	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23904
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TO COMPLETE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TOTA 23904

P-3A



CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODIFICATION TITLE: Tomahawk Remanufacture

INSTALLATION SCHEDULE:

INPUT ==>	FY 1996	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				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		
FY 1996 & Pri	0	0	0	0	26	26	26	26	26	0	12	12	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	165
FY 1997	0	0	0	0	0	0	0	0	0	0	7	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TO COMPLETE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Input covers a 23-month period from September 1997 through July 1999

TOTA 185

OUTPUT ==>	FY 1996	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				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		
FY 1996 & Pri	0	0	0	0	0	0	26	26	26	26	26	12	12	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	165
FY 1997	0	0	0	0	0	0	0	0	0	0	0	7	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TO COMPLETE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Output covers a 23-month period from March 1998 through January 2000

TOTA 185

P-3A

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET					DATE February 1997																																							
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE																																							
WEAPONS PROCUREMENT NAVY/BA-2 OTHER MISSILES					SPARROW MODIFICATIONS #230400 (12EN)																																							
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003																																				
QUANTITY																																												
COST (In Millions)	\$ 1.3	\$ 2.5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -																																				
<p>The FY95-FY01 Sparrow modification program provides the U.S. Navy with upgraded air-to-air (AIM-7) and surface-to-air (RIM-7) missiles capable of intercepting extremely low flying antiship missiles. Hardware buys provide configuration upgrades to the 7M missiles and are performed during retrofit.</p> <p>The Evolved Seasparrow Missile (ESSM) Program is introduced in FY 1997. 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" in the MK41 Vertical Launching System and to be compatible with MK29 trainable launchers for employment in AEGIS, NSSMS and SSDS configured ships.</p> <p>RDT&amp;E program elements for MHIP are 0603609N, Project Unit U1821 and 0604366N, Project U0439. RDT&amp;E program element for ESSM is 0604755N, Project Unit U0173.</p> <table border="1"> <thead> <tr> <th></th> <th><u>FY 1996</u></th> <th><u>FY 1997</u></th> <th><u>FY 1998</u></th> <th><u>FY 1999</u></th> <th><u>FY 2000</u></th> <th><u>FY 2001</u></th> <th><u>FY 2002</u></th> <th><u>FY 2003</u></th> </tr> </thead> <tbody> <tr> <td>7P</td> <td>994</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>MHIP</td> <td>325</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>ESSM 1]</td> <td>0</td> <td>2,478</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>1] Funding for ESSM for FY98 and out is reflected in Line Item 230700, WPN - P-1 line 4.</p>										<u>FY 1996</u>	<u>FY 1997</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>	7P	994	0	0	0	0	0	0	0	MHIP	325	0	0	0	0	0	0	0	ESSM 1]	0	2,478	0	0	0	0	0	0
	<u>FY 1996</u>	<u>FY 1997</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>																																				
7P	994	0	0	0	0	0	0	0																																				
MHIP	325	0	0	0	0	0	0	0																																				
ESSM 1]	0	2,478	0	0	0	0	0	0																																				

EXHIBIT P-40



MODIFICATION TITLE: **AIM/RIM-7R Missile Homing Improvement Program**

MODELS OF SYSTEM AFFECTED: **AIM/RIM-7M/P**

DESCRIPTION/JUSTIFICATION: Retrofit provides U.S. forces with an upgraded air-to-air and surface-to-air missile capable of intercepting low flying antiship missiles in the presence of enhanced ECCM. The MHIP provides a significant improvement to RIM-7M seeker capabilities. The low altitude fuze (7P) capability is inherent in the MHIP 7R upgrade. This is an evolutionary program which utilizes the 7P as an interim change.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

**FINANCIAL PLAN: (\$ 000)**

	FY96/Prior		FY97		FY98		FY99		FY00		FY01		FY02		FY03		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E																					
PROCUREMENT																					
Installation Kits	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Installation Kit Nonrecurring		8,602		0		0		0		0		0		0		0		0		0	8,602
Gov't Sys Engr		0		0		0		0		0		0		0		0		0		0	0
ILS Support		0		0		0		0		0		0		0		0		0		0	0
Training Equipment		0		0		0		0		0		0		0		0		0		0	0
Installation of Hardware																					
TOTAL INSTALLATION COST	0	0	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
TOTAL PROCUREMENT COST	0	8,602	0	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8,602
TOTAL COST		8,602		0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	8,602

METHOD OF IMPLEMENTATION: ADMINISTRATIVE LEADTIME: PRODUCTION LEADTIME:

CONTRACT DATE: FY1997: N/A FY1998: N/A

PRODUCTION DELIVER DATE: FY1997: N/A FY1998: N/A

INSTALLATION SCHEDULE

	FY97				FY98				FY99				FY00				TOTAL			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

MODIFICATION TITLE: **RIM-7P Low Altitude Fuse Retrofit**  
 MODELS OF SYSTEM AFFECTED: **RIM-7M**  
 DESCRIPTION/JUSTIFICATION: Retrofit provides U.S. forces with an upgraded surface-to-air missile capable of intercepting extremely low flying antiship missiles.  
 DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

**FINANCIAL PLAN: (\$ 000)**

	FY95/Prior		FY96		FY97		FY98		FY99		FY00		FY01		FY02		TC		TOTAL		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PROCUREMENT																					
Installation Kits	2,128	69,685	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,128	69,685	
Installation Kits Nonrecurring		2,000		0		0		0		0		0		0		0		0		2,000	
Gov't In-House Sys Engr/Test		54,709		0		0		0		0		0		0		0		0		54,709	
Training Equipment		6,521		0		0		0		0		0		0		0		0		6,521	
ILS/Support Equipment		23,870		0		0		0		0		0		0		0		0		23,870	
Installation of Hardware FY95 & Prior (896 Kits)		6,662																	0	6,662	
TOTAL INSTALLATION COST	0	6,662	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,662	
TOTAL PROCUREMENT COST	2,128	156,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,128	156,785	
TOTAL COST		163,447		0		0		0		0		0		0		0		0		163,447	

METHOD OF IMPLEMENTATION: Contractor Facilities ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 23 Months

CONTRACT DATE: FY1996: N/A FY1997: N/A

PRODUCTION DELIVER DATE: FY1996: N/A FY1997: N/A

INSTALLATION SCHEDULE	FY95				FY96				FY97				FY98				TOTAL				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
INPUT FY95 & Prior *	132	163	183	186	73												205	163	0	183	186
OUTPUT FY95 & Prior **	90	132	163	183	186	73											276	205	0	163	183

\* INPUT: Induction to Contractor

\*\* OUTPUT: Delivery of Modified GCS from Contractor. Installation costs for FY95 & Prior procurements funded in Fy94 and prior years.

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40					DATE: February 1997																		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles					P-1 ITEM NOMENCLATURE AIM-9 SIDEWINDER MODS																		
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003															
QUANTITY					75	125	300	300															
COST (In Millions)	\$16.1	\$1.3	\$0.3	\$0.0	\$36.2	\$42.7	\$70.1	\$70.8															
<p>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.</p> <p>The FY 1996 program procures AIM-9M modifications that provide the technology for an upgrade to the AIM-9M inventory. The Guidance and Control section of the AIM-9M missile will be modified at a government depot and/or contractor facilities. The AIM-9M-8/9 modification program improves the robustness of CCM without changing any basic AIM-9M characteristics. FY 1997 and FY 1998 funding installs previously procured AIM-9M modifications.</p> <p>Funds in FY 2000 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, fuze, and kinematics which 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.</p> <p>AIM-9X PE 0207161N, E0457</p> <p>AIM -9X Quantities:</p> <table border="0"> <thead> <tr> <th></th> <th><u>FY 2000</u></th> <th><u>FY 2001</u></th> <th><u>FY 2002</u></th> <th><u>FY 2003</u></th> </tr> </thead> <tbody> <tr> <td>Air Force</td> <td>75</td> <td>125</td> <td>300</td> <td>300</td> </tr> <tr> <td>Navy</td> <td>75</td> <td>125</td> <td>300</td> <td>300</td> </tr> </tbody> </table>										<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	Air Force	75	125	300	300	Navy	75	125	300	300
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>																			
Air Force	75	125	300	300																			
Navy	75	125	300	300																			

CLASSIFICATION: **UNCLASSIFIED**

MODIFICATION INSTALLATION SUMMARY (EXHIBIT P-3N) (TOA, Dollars in Millions)						DATE Feb-97			
APPROPRIATION/BUDGET ACTIVITY: <b>Weapons Procurement, Navy</b> <b>BA 2 - Other Missiles</b>					P-1 ITEM NOMENCLATURE <b>AIM-9 Sidewinder Mods</b>				
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
Sidewinder Mods	0.6	1.3	0.3						2.2
<b>TOTAL</b>	<b>0.6</b>	<b>1.3</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.2</b>

P-1 SHOPPING LIST  
ITEM NO. 17      AGE NO. 2

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

P3A		INDIVIDUAL MODIFICATION																							
MODIFICATION TITLE: <b>AIM-9M PRODUCT IMPROVEMENT PROGRAM</b>																									
MODELS OF SYSTEM AFFECTED: <b>AIM-9M</b>																									
DESCRIPTION/JUSTIFICATION:																									
The current AIM-9M Sidewinder does not meet the IRCM threat environment. This modification program provides the technology for an upgrade to the AIM-9M inventory. The Guidance and Control section of the AIM-9M missile will be modified at a government depot and/or contractor facility. The AIM-9M -8/9 modification program improves the robustness of CCM without changing any basic AIM-9M characteristics.																									
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																									
		FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL					
		QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$				
FINANCIAL PLAN (\$000)																									
<i>RDT&amp;E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS	4207	25061																4207	25061						
INSTALLATION KITS NONRECURRING																					498				
ENGINEERING CHANGES																					100				
GOV'T IN-HOUSE SYS ENGR/TEST																					9486				
TRAINING EQUIPMENT																					1365				
ILS/SUPPORT EQUIPMENT																					2941				
<i>INSTALLATION OF HARDWARE</i>																									
FY93 (1009 Kits)	1009	1530																		1009	1530				
FY 94 (1520 Kits)	1520	4570																		1520	4570				
FY 96 (1678 Kits)	439	571	981	1274	258	333														1678	2178				
TOTAL INSTALLATION COST		6671		1274		333														4207	8278				
TOTAL PROCUREMENT COST	4207	39451		0		0														4207	39451				
TOTAL COST		46122		1274		333															47729				
METHOD OF IMPLEMENTATION: Contractor, Depot and Weapon Station																ADMINISTRATIVE LEADTIME:						PRODUCTION LEADTIME:			
CONTRACT DATE:		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A					
PRODUCTION DELIVER DATE:		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A		FY 199 N/A					
The 1,678 modified GCS's procured in FY96 will be installed by the contractor (Raytheon Option III for 1,200 units and 478 units on the new contract). Quantity/price structure reflects consideration of USAF buys in FY94/95/96 and results in lowest unit price over program duration.																									

P-3A

CLASSIFICATION: UNCLASSIFIED

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

MODIFICATION TITLE: AIM-9M PRODUCT IMPROVEMENT PROGRAM

INSTALLATION SCHEDULE:

INPUT ==>	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	1	2	3	4					
FY 1993	725	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	725
FY 1994	1804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1804
FY 1996	1678	0	##	##	##	##	119	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3356

TOTAL INPUT 5885

OUTPUT ==>	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	1	2	3	4					
FY 1993	725	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	725
FY 1994	1804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1804
FY 1996	1678	0	0	##	##	##	181	##	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1678

TOTAL OUTPU 4207

Input: Induction to Contractor

Output: Delivery of modified GCS from contractor

P-3A

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET							DATE:	
P-40							February 1997	
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE			
<b>Weapons Procurement, Navy</b> <b>BA2 - Other Missiles</b>					<b>HARPOON/SLAM MODIFICATION (J2EW) (PEO-CU)</b>			
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
COST (In Millions)	\$2.6	\$42.1	\$21.7	\$36.3	\$36.5	\$28.9	\$29.6	\$30.5
MISSION AND DESCRIPTION:								
<p>The HARPOON/SLAM missile modification program provides funds for Engineering Change Proposals (ECP's) and other improvements to its weapons components which are already in the inventory and require retrofit activity. This budget contains the following modification projects which will provide improvements to the guidance, warhead, exercise, sustainer and control sections of the HARPOON/SLAM missile.</p>								
MODIFICATION	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
CAPSULE	1.865	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENCAPSULATED EX	0.741	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SURFACE LAUNCH EX	0.000	0.091	0.000	0.000	0.000	0.000	0.000	0.000
AIR LAUNCH EX	0.000	0.129	0.000	0.000	0.000	0.000	0.000	0.000
SLAM-ER	0.000	41.881	21.694	36.314	36.535	28.907	29.550	30.500
TOTALS	2.606	42.101	21.694	36.314	36.535	28.907	29.550	30.500

CLASSIFICATION: **UNCLASSIFIED**

MODIFICATION INSTALLATION SUMMARY (EXHIBIT P-3N) (TOA, Dollars in Millions)								DATE February 1997	
APPROPRIATION/BUDGET ACTIVITY: Weapons Procurement, Navy BA2 - Other Missiles					P-1 ITEM NOMENCLATURE HARPOON/SLAM Modification (J2EW) (PEO-CU)				
System/Modification	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TOTAL
Harpoon/SLAM Mods									
Encapsulated Exercise	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Surface Launch Exercise	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Air Launch Exercise	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Harpoon/SLAM Mods <b>TOTAL</b>	<b>0.0</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>

P-1 SHOPPING LIST  
ITEM NO. 18 PAGE NO. 2

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

P3A		INDIVIDUAL MODIFICATION																					
MODIFICATION TITLE:		CAPSULE																					
MODELS OF SYSTEM AFFECTED:		UGM-84C/D																					
DESCRIPTION/JUSTIFICATION:		CAPSULE FOR SUBMARINE LAUNCHED HARPOON-CORROSION CORRECTIVE ACTION CHANGE-REPLACE NON-RFI OR EXPENSE																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:		PRODUCTION																					
		FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		IC		TOTAL			
		QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$		
FINANCIAL PLAN (IN MILLIONS)																							
<i>RDT&amp;E</i>																				0	0.0		
<i>PROCUREMENT</i>																							
INSTALLATION KITS		14	4.2																			14	4.2
INSTALLATION KITS - UNIT COST			0.300																				
INSTALLATION KITS NONRECURRING																					0.0		
EQUIPMENT																					0.0		
EQUIPMENT NONRECURRING																					0.0		
ENGINEERING CHANGE ORDERS																					0.0		
DATA																					0.0		
TRAINING EQUIPMENT			0.8																				0.8
SUPPORT EQUIPMENT																					0.0		
OTHER																					0.0		
INTERIM CONTRACTOR SUPPORT																					0.0		
INSTALLATION OF HARDWARE																							
FY 1996 EQUIPMENT & PRIOR (14 Kits)		5	0.0	2	0.0	7	0.0															14	0.0
FY 1997 EQUIPMENT																				0	0.0		
FY 1998 EQUIPMENT																				0	0.0		
FY 1999 EQUIPMENT																				0	0.0		
FY 2000 EQUIPMENT																				0	0.0		
FY 2001 EQUIPMENT																				0	0.0		
FY 2002 EQUIPMENT																				0	0.0		
FY 2003 EQUIPMENT																				0	0.0		
TO COMPLETE																				0	0.0		
TOTAL INSTALLATION COST		5	0.0	2	0.0	7	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	0.0		
TOTAL PROCUREMENT COST		14	5.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	5.0		
TOTAL COST			5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14	5.0		
METHOD OF IMPLEMENTATION:																ADMINISTRATIVE LEADT	7	PRODUCTION LEADTIME	24				
CONTRACT DATE:		FY 1997	N/A					FY 1998:	N/A					FY 1999:	N/A								
PRODUCTION DELIVER DATE:		FY 1997	N/A					FY 1998:	N/A					FY 1999:	N/A								
<p>* NOTE: INSTALLATIONS ARE INCIDENTAL TO REGULARLY SCHEDULED MISSILE BUILD-UP AT I-LEVEL. THEREFORE NO INSTALLATION FUNDING REQUIRED.</p>																							

P-3A

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODIFICATION TITLE: CAPSULE

INSTALLATION SCHEDULE:

INPUT ==>	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		
FY 1996 & Prior	5	0	0	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL INPUT 14

OUTPUT ==>	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		
FY 1996 & Prior	5	0	0	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TOTAL OUTPUT 14

P-3A

CLASSIFICATION: UNCLASSIFIED

P3A		INDIVIDUAL MODIFICATION													
MODIFICATION TITLE:		ENCAPSULATED HARPOON EXERCISE ROUND CONVERSION KITS													
MODELS OF SYSTEM AFFECTED:		UGM-84C/D													
DESCRIPTION/JUSTIFICATION:		CONVERT SUB-LAUNCH TACTICAL MISSILES TO FLEET EXERCISE/TELEMETRY MISSILES													
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:		PROCUREMENT/INSTALLATION EXERCISE; NO MILESTONES REQUIRED													
		FY 1996 & Prior	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	IC	TOTAL				
		QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)															
<i>RDT&amp;E</i>														0	0.0
<i>PROCUREMENT</i>															
INSTALLATION KITS		16	2.8											16	2.8
INSTALLATION KITS - UNIT COST			0.176												
INSTALLATION KITS NONRECURRING															0.0
EQUIPMENT															0.0
EQUIPMENT NONRECURRING															0.0
ENGINEERING CHANGE ORDERS															0.0
DATA															0.0
TRAINING EQUIPMENT															0.0
SUPPORT EQUIPMENT															0.0
OTHER															0.0
INTERIM CONTRACTOR SUPPORT															0.0
<u>INSTALLATION OF HARDWARE</u>															
FY 1996 EQUIPMENT & PRIOR (16 Kits)		6	0.1											10	0.2
FY 1997 EQUIPMENT														0	0.0
FY 1998 EQUIPMENT														0	0.0
FY 1999 EQUIPMENT														0	0.0
FY 2000 EQUIPMENT														0	0.0
FY 2001 EQUIPMENT														0	0.0
FY 2002 EQUIPMENT														0	0.0
FY 2003 EQUIPMENT														0	0.0
TO COMPLETE														0	0.0
TOTAL INSTALLATION COST		6	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	10	0.2
TOTAL PROCUREMENT COST		16	2.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.2
TOTAL COST			2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.1
METHOD OF IMPLEMENTATION:															
ADMINISTRATIVE LEADT 7 PRODUCTION LEADTIME 24															
CONTRACT DATE:		FY 1997	N/A			FY 1998:	N/A			FY 1999:	N/A				
PRODUCTION DELIVER DATE:		FY 1997	N/A			FY 1998:	N/A			FY 1999:	N/A				

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)		INDIVIDUAL MODIFICATION (Continued)																																					
MODIFICATION TITLE: <b>ENCAPSULATED HARPOON EXERCISE ROUND CONVERSION KITS</b>																																							
INSTALLATION SCHEDULE:																																							
INPUT ==>	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	1	2	3	4	1	2	3	4		
FY 1996 & Prior	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	16
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		TOTAL INPUT																														16							
OUTPUT ==>	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	1	2	3	4						
FY 1996 & Prior	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	16				
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		TOTAL OUTPUT																														16							

P-3A

CLASSIFICATION: UNCLASSIFIED

P3A		INDIVIDUAL MODIFICATION															
MODIFICATION TITLE:		SURFACE LAUNCH HARPOON EXERCISE ROUND CONVERSION KITS															
MODELS OF SYSTEM AFFECTED:		RGM-84C/D															
DESCRIPTION/JUSTIFICATION:		CONVERT SURFACE LAUNCH TACTICAL MISSILES (LESS SALVO TRAY MODIFICATION) TO FLEET EXERCISE/TELEMETRY MISSILE															
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:		PROCUREMENT/INSTALLATION EXERCISE; NO MILESTONES REQUIRED															
		FY 1996 & Prior	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	IC	TOTAL						
		QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																	
<i>RDT&amp;E</i>																0	0.0
<i>PROCUREMENT</i>																	
INSTALLATION KITS	37	11.0										15	5.3	52	16.3		
INSTALLATION KITS - UNIT COST		0.297															
INSTALLATION KITS NONRECURRING																	0.0
EQUIPMENT																	0.0
EQUIPMENT NONRECURRING																	0.0
ENGINEERING CHANGE ORDERS																	0.0
DATA																	0.0
TRAINING EQUIPMENT																	0.0
SUPPORT EQUIPMENT																	0.0
OTHER																	0.0
INTERIM CONTRACTOR SUPPORT																	0.0
<u>INSTALLATION OF HARDWARE</u>																	
FY 1996 EQUIPMENT & PRIOR (37 Kits)	30	0.7	7	0.1										15	0.4	52	1.2
FY 1997 EQUIPMENT																0	0.0
FY 1998 EQUIPMENT																0	0.0
FY 1999 EQUIPMENT																0	0.0
FY 2000 EQUIPMENT																0	0.0
FY 2001 EQUIPMENT																0	0.0
FY 2002 EQUIPMENT																0	0.0
FY 2003 EQUIPMENT																0	0.0
TO COMPLETE																0	0.0
TOTAL INSTALLATION COST	30	0.7	7	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	15 0.4 52 1.2
TOTAL PROCUREMENT COST	37	11.7	0	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	15 5.7 52 17.5
TOTAL COST		11.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	17.5
METHOD OF IMPLEMENTATION:		ADMINISTRATIVE LEADT 7 PRODUCTION LEADTIME 24															
CONTRACT DATE:	FY 1997	N/A			FY 1998:	N/A			FY 1999:	N/A							
PRODUCTION DELIVER DATE:	FY 1997	N/A			FY 1998:	N/A			FY 1999:	N/A							

P-3A

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)		INDIVIDUAL MODIFICATION (Continued)																																	
MODIFICATION TITLE: SURFACE LAUNCH HARPOON EXERCISE ROUND CONVERSION KITS		INSTALLATION SCHEDULE:																																	
INPUT ==>	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	1	2	3	4		
FY 1996 & Prior	30	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15				
TOTAL INPUT																52																			
OUTPUT ==>	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	1	2	3	4		
FY 1996 & Prior	30	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15				
TOTAL OUTPUT																52																			

P-3A



CLASSIFICATION: UNCLASSIFIED

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**  
 MODIFICATION TITLE: **AIR LAUNCH HARPOON EXERCISE ROUND MOD KITS**

INSTALLATION SCHEDULE:

INPUT ==>	FY 1996	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				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		
FY 1996 & Pr	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL INPUT																									6						

  

OUTPUT ==>	FY 1996	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				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		
FY 1996 & Pr	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
FY 1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1998	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OUTPUT																									6						

P-3A

CLASSIFICATION: UNCLASSIFIED

P3A		INDIVIDUAL MODIFICATION																			
MODIFICATION TITLE:		SLAM EXPANDED RESPONSE (ER)																			
MODELS OF SYSTEM AFFECTED:		AGM - 84E																			
DESCRIPTION/JUSTIFICATION:		CONVERTS SLAM TO SLAM ER CONFIGURATION, INCREASING RANGE, ACCURACY, LETHALITY, AND ENHANCES INTER-SERVICE COMPATIBILITY																			
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:		PRODUCTION																			
		FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
		QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																					
RDT&E		127.8		31.0		28.9		5.2												0 192.9	
PROCUREMENT																					
INSTALLATION KITS (1) (2) (3)		60 32.9		22 16.5		54 28.8		58 30.7		38 24.1		38 24.9		38 25.7		317 178.3		625 361.9			
INSTALLATION KITS - UNIT COST		0.548		0.750		0.533		0.529		0.634		0.655		0.676		0.562					
INSTALLATION KITS NONRECURRING EQUIPMENT		0.6		0.5		1.3														0.0 2.4	
EQUIPMENT NONRECURRING																				0.0 4.4	
ENGINEERING CHANGE ORDERS		0.4		0.2		0.4		0.4		0.3		0.3		0.3		2.2				1.9 9.3	
DATA		1.2		0.3		0.5														6.3 42.5	
TRAINING EQUIPMENT (Exercise Sections)		13 2.2		2 0.2		3 0.5		4 0.7		0.0		0.0		0.0		30 5.7		50 9.3			
SUPPORT EQUIPMENT (Containers)		60 0.6		22 0.2		54 0.5		58 0.6		38 0.4		38 0.4		38 0.4		317 3.2		625 6.3			
OTHER (Field Activity Support)		4.0		3.7		4.1		4.1		4.1		4.0		4.1		14.4				42.5 0.4	
INTERIM CONTRACTOR SUPPORT				0.2		0.2															
INSTALLATION OF HARDWARE (2)																					
FY 1996 EQUIPMENT & PRIOR																				0 0.0	
FY 1997 EQUIPMENT (60 Kits)																				0 0.0	
FY 1998 EQUIPMENT (22 Kits)																				0 0.0	
FY 1999 EQUIPMENT (54 Kits)																				0 0.0	
FY 2000 EQUIPMENT (58 Kits)																				0 0.0	
FY 2001 EQUIPMENT (38 Kits)																				0 0.0	
FY 2002 EQUIPMENT (38 Kits)																				0 0.0	
FY 2003 EQUIPMENT (38 Kits)																				0 0.0	
TO COMPLETE (317 Kits)																				0 0.0	
TOTAL INSTALLATION COST		0 0.0		0 0.0		0 0.0		0 0.0		0 0.0		0 0.0		0 0.0		0 0.0		0 0.0		0 0.0	
TOTAL PROCUREMENT COST		0 0.0		60 41.9		22 21.7		54 36.3		58 36.5		38 28.9		38 29.6		38 30.5		317 203.8		625 429.1	
TOTAL COST		127.8		72.9		50.6		41.5		36.5		28.9		29.6		30.5		203.8		622.1	
METHOD OF IMPLEMENTATION:		DEPOT COMMERCIAL																			
CONTRACT DATE:		FY 1997 Apr-97						FY 1998: Apr-98						FY 1999: Apr-99							
PRODUCTION DELIVER DATE:		FY 1997 Apr-98						FY 1998: Apr-99						FY 1999: Apr-00							
ADMINISTRATIVE LEADTIME:		7																			
PRODUCTION LEADTIME:		12																			
NOTE(S):																					
1) KIT CONSISTS OF GFE SLAM AUR AND CFE COMPONENTS																					
2) INSTALLATION COSTS ARE INCLUDED IN THE INSTALLATION KITS LINE SINCE KIT COST AND INSTALLATION ARE NON-SEVERABLE																					
3) ESTIMATED COSTS FOR INSTALLATION KITS / INSTALLATION OF HARDWARE IS EFFECTED BY CONCURRENT FMS PRODUCTION (HARPOON AND/OR SLAM)																					
FMS ASSUMPTIONS INCLUDE 50 UNITS IN FY97, AND 100 UNITS IN FY98 - FY07																					

P-3A

CLASSIFICATION: UNCLASSIFIED

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

MODIFICATION TITLE: **SLAM EXPANDED RESPONSE (ER)**

INSTALLATION SCHEDULE:

INPUT ==>	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			1	2	3	4
FY 1996 & Pr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1997	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
FY 1998	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
FY 1999	0	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	38
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	38
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	317	317

TOTAL INPUT 625

OUTPUT ==>	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			1	2	3	4
FY 1996 & Pr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FY 1997	0	0	0	0	0	0	0	15	15	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
FY 1998	0	0	0	0	0	0	0	0	0	0	0	6	6	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
FY 1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
FY 2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	15	15	0	0	0	0	0	0	0	0	0	0	0	58
FY 2001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	9	9	0	0	0	0	0	0	0	38
FY 2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	18	38				
FY 2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	38				
To Complete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	317	317				

TOTAL OUTPUT 625

4/ 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: <b>February 1997</b>			
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA 2 - Other Missiles</b>					P-1 ITEM NOMENCLATURE <b>Other Missile Mods</b>			
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (In Millions)	<b>\$0.4</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
<p>FY 1996 funding provided for incorporation of a capstan sealant ECP into 4,600 Navy TOW 2A missiles. The ECP was required to correct a cold weather reliability problem, and allow for final acceptance of TOW 2A missiles into the Navy inventory.</p>								

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

**UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>						<b>Date: February 1997</b>			
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>WEAPONS PROCUREMENT, NAVY</b> <b>BA-2 OTHER MISSILES</b>			<b>P-1 ITEM NOMENCLATURE</b> <b>STANDARD MISSILES MODIFICATION (12FK)</b>						<b>BLI: 235600</b>
	<b>FY 96</b>	<b>FY 97</b>	<b>FY 98</b>	<b>FY 99</b>	<b>FY 00</b>	<b>FY 01</b>	<b>FY 02</b>	<b>FY 03</b>	
<b>QUANTITY</b>									
<b>COST</b> (In Millions)	<b>\$33.2</b>	<b>\$18.2</b>	<b>\$35.6</b>	<b>\$46.4</b>	<b>\$45.2</b>	<b>\$54.0</b>	<b>\$51.1</b>	<b>\$53.0</b>	

**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. All of these modifications are "turn-key" and do not involve separate install funding. The following modification projects included in this budget are:

	<b>FY96</b>	<b>FY97</b>	<b>FY98</b>	<b>FY99</b>	<b>FY00</b>	<b>FY01</b>	<b>FY02</b>	<b>FY03</b>	<b>To Complete</b>
<b>SM-1</b>	7,297	7,427	0	0	0	0	0	0	0
<b>Missile Homing Improvement Program</b> (WP,N) (RDT&E)*	25,900 9,500	10,726	35,601	46,433	45,209	53,969	51,107	53,026	117,483

\*NON ADD

**UNCLASSIFIED**

**UNCLASSIFIED**  
**INDIVIDUAL MODIFICATION**  
**P-3A**

February 1997

**Modification Title:** Low Altitude Improvement

**Models of Systems Affected:** STANDARD Missile RIM-66E (SM-1 BLOCK VI)

**Description/Justification:**

The STANDARD Missile Low Altitude Improvement consists of improvements which were approved by SECNAV in PMP 85-02 on 22 May 1986. In SM-1, the modifications are only to the missile with no interface change with the ship. Therefore, the common nomenclature is a letter change to the block number. Specifically, SM-1 Block VIB. Backfit of the initial changes into SM-1 Block VI is by replacement of the electronics assembly in the TDDs by an ORDALT to the guidance section.

**Financial Plan:**

	FY96 & Prior	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	TOTAL
RDT&E: N/A									
WPN: (\$K)									
KIT Quantity	280	30	0	0	0	0	0	0	310
Installation Kits	44,235	6,897	0	0	0	0	0	0	51,132
Installed Equipment Nonrecurring	0	0	0	0	0	0	0	0	0
Engineering Change Orders	90	30	0	0	0	0	0	0	120
Data	540	0	0	0	0	0	0	0	540
Training Equipment	1,435	0	0	0	0	0	0	0	1,435
Support Equipment	400	0	0	0	0	0	0	0	400
Total Procurement Cost	46,700	6,927	0	0	0	0	0	0	53,627
Installation Cost	582	0	0	0	0	0	0	0	582
Other	8,004	500	0	0	0	0	0	0	8,504
Total Cost	54,704	7,427	0	0	0	0	0	0	62,131

**Method of Implementation:** TDDs and guidance sections will be refurbished at the depots and will be modified into Block VIB configuration on the production line at a rate which will provide a constant workload. The modified sections will then be returned to the AUR Facility for integration into the round.

# UNCLASSIFIED

P-3A

**Low Altitude Improvement (Continued)**

**Date: February 1997**

(U) Contract Date:                      Prior Year: 07/96                      Current Year: 01/97                      Budget Year: 00                      Budget Year +1: 00

(U) Production Delivery Date:                      Prior Year: 11/97                      Current Year: 11/98                      Budget Year: 00                      Budget Year +1: 00

(U) Installation Schedule:

	<u>FY 96</u>				<u>FY 97</u>				<u>FY 98</u>				<u>FY 99</u>				<u>FY 00</u>				<u>FY 01</u>				<u>FY 02</u>				<u>FY 03</u>				<b>TOTAL</b>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>																													
<b>INPUT</b>																																	
FY 95					11	20	20	14																									65
FY 96									10	14	14	14																					52
FY 97													7	8	8	7																	30
FY 98																																	
FY 99																																	

(U) Installation Schedule:

	<u>FY 96</u>				<u>FY 97</u>				<u>FY 98</u>				<u>FY 99</u>				<u>FY 00</u>				<u>FY 01</u>				<u>FY 02</u>				<u>FY 03</u>				<b>TOTAL</b>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>																													
<b>OUTPUT</b>																																	
FY 95					9	18	20	18																									65
FY 96									8	14	14	16																					52
FY 97													8	8	8	6																	30
FY 98																																	

Modification Title: Missiles Homing Improvement Program (MHIP)  
 Models of Systems Affected: STANDARD Missile (MR) RIM-66G/H

## Description/Justification:

The STANDARD Missile SM-2 is an Integral element of the AEGIS weapon system and provides area defense against air threats. The SM-2 Block IIIB MHIP provides Homing Improvements to SM-2 Blk II/III missiles for operations in a hostile ECM environment.

## Development Status/Major Development Milestones:

The SM-2 Block IIIB successfully completed DT TECHEVAL at White Sands Missile Range (WSMR) and was approved for Low Rate Initial Production (LRIP) via modification by paper NPDM; the ADM was signed on 20 Nov 95. The SM-2 Block IIIB capability to detect the designated threat B at-sea OPEVAL was completed in April 1996. An SM-2 Block IIIB Milestone III full rate production decision was granted in July 1996. The ADM was approved 19 Sept 1996 following congressional notification, beyond LRIP Report dated 23 Aug 1996.

Financial Plan	FY96 & Prior	FY97	FY98	FY99	FY00	FY01	FY02	FY03	To Comp	Total
RDT&E: NA	304,071									
WPN: (\$K)										
IIIB KIT Quantity	135	40	80	102	102	126	122	126	267	1,100
IIIB Installation Kit	48,598	10,726	20,891	28,130	26,595	30,728	28,279	29,051	65,481	288,479
SLEP Kit Quantity	0	0	80	102	102	126	122	126	267	925
SLEP Kit Installation Kits	0	0	14,710	18,303	18,614	23,241	22,828	23,975	52,002	173,673
Installation Kit Non-recurring	0	0	0	0	0	0	0	0	0	0
Installed Equipment	0	0	0	0	0	0	0	0	0	0
Installed Kit Non-recurring	0	0	0	0	0	0	0	0	0	0
Engineering Change Orders	0	0	0	0	0	0	0	0	0	0
Data	0	0	0	0	0	0	0	0	0	0
Training Equipment										
Support Equipment	*7704									
Total Procurement Cost	48,598	10,726	35,601	46,433	45,209	53,969	51,107	53,026	117,483	462,152
Installation Cost	0	0	0	0	0	0	0	0	0	0
Total Cost	48,598	10,726	35,601	46,433	45,209	53,969	51,107	53,026	117,483	462,152

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Missile Homing Improvement Program (MHIP) (Continued)

Date: February 1997

Method of Implementation: Guidance sections will be reworked at the depots and modified into SM-2 Block IIIB configuration at a rate which will provide a constant workload. The modified sections will then be sent to the contractor All-Up-Round (AUR) facility for integration into the round. SLEP Mods (starting in FY98) will be incorporated concurrently.

<u>Contract Date :</u>	<u>Prior Year</u>	<u>Current Year</u>	<u>Budget Year</u>	<u>Budget Year +1</u>	<u>Budget Year +2</u>	<u>Budget Year +3</u>	<u>Budget Year +4</u>	<u>Budget Year +5</u>
SEEKER	6/96	1/97	1/98	1/99	1/00	1/01	1/02	1/03
Target Detecting Device (TDD)	6/96	6/97	6/98	6/99	6/00	6/01	6/02	6/03
SLEP/GC&A	6/96	1/97	1/98	1/99	1/00	1/01	1/02	1/03
MK125 Warhead	7/96	4/97	4/98	4/99	4/00	4/01	4/02	4/03
MK54 Safe and Arm	6/96	3/97	3/98	3/99	3/00	3/01	3/02	3/03
SLEP MK104	N/A	N/A	3/98	3/99	3/00	3/01	3/02	3/03

  

<u>Production Delivery Date :</u>	<u>Prior Year</u>	<u>Current Year</u>	<u>Budget Year</u>	<u>Budget Year +1</u>	<u>Budget Year +2</u>	<u>Budget Year +3</u>	<u>Budget Year +4</u>	<u>Budget Year +5</u>
SEEKER	11/98	7/99	1/00	12/00	12/01	12/02	12/03	12/04
Target Detecting Device (TDD)	8/98	4/99	10/99	9/00	9/01	9/02	9/03	9/04
SLEP/GC&A	11/98	7/99	1/00	12/00	12/01	12/02	12/03	12/04
MK125 Warhead	8/98	4/99	10/99	9/00	9/01	9/02	9/03	9/04
MK54 Safe and Arm	8/98	4/99	10/99	9/00	9/01	9/02	9/03	9/04
SLEP MK104			10/99	10/00	10/01	10/02	10/03	10/04

Installation Schedule :

	<u>FY 97</u>				<u>FY 98</u>				<u>FY 99</u>				<u>FY 00</u>				<u>FY 01</u>				<u>FY 02</u>				<u>FY 03</u>				BEYOND	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						
INPUT																																		
FY 95					8	25	26		9																						68			
FY 96									17	25	25																		67					
FY 97											19	#																		40				
FY 98													21	21	23														80					
FY 99																	8	27	26	26	15										102			
FY 00																					9	#	24	24	20						102			
FY 01																									15	37	37	37		126				
FY 02																													122	122				
FY 03																													126	126				
OUTPUT																																		
FY 95					25	26			17																						68			
FY 96									8	26	25	8																		67				
FY 97													13	#	7														40					
FY 98													14	22	23					21										80				
FY 99																	26	27	26					23										102
FY 00																					#	27	26					23						102
FY 01																									26	31	34					35	126	
FY 02																													122	122				
FY 03																													126	126				

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BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 1997	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles					P-1 ITEM NOMENCLATURE Weapons Industrial Facilities			
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (In Millions)	\$41.8	\$33.5	\$34.9	\$10.7	\$10.9	\$11.1	\$10.9	\$11.7
<p>This line item provides for the 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>- 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>								

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CLASSIFICATION **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS								DATE:		
P-5				Feb-97						
APPROPRIATION/BUDGET ACTIVITY				P-1 ITEM NOMENCLATURE/SUBHEAD						
<b>Weapons Procurement, Navy</b>				<b>Weapons Industrial Facilities</b>						
<b>BA 2 - Other Missiles</b>										
COST CODE	ELEMENT OF COST	IDENT CODE	TOTAL COST IN THOUSANDS OF DOLLARS							
			FY 1996		FY 1997		FY 1998		FY 1999	
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
FU002	Capital Type Rehabilitation									
	Environmental		3,678	1,057	5,521	6,280				
		(SEA)	1,000	0	3,901	4,003				
		(AIR)	2,678	1,057	1,620	2,277				
	Safety		1,751	557	1,418	1,359				
		(SEA)	450	0	1,200	1,250				
		(AIR)	1,301	557	218	109				
	Major Repairs		3,368	1,931	2,143	2,507				
		(SEA)	812	856	391	737				
		(AIR)	2,556	1,075	1,752	1,770				
	Energy Conservation		2,315	0	850	590				
		(SEA)								
	Closure Costs NWIRP, McGregor		723	0	0	0				
		(AIR)								
FU005	Facilities Restoration (ABL)		30,000	30,000	25,000	0				
		(SEA)								
	TOTAL Weapons Industrial Facilities		34,577	30,856	31,342	6,580				
		(SEA)	7,258	2,689	3,590	4,156				
		(AIR)								
<b>TOTAL</b>			<b>41,835</b>	<b>33,545</b>	<b>34,932</b>	<b>10,736</b>				

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CLASSIFICATION **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS								DATE:		
P-5										
APPROPRIATION/BUDGET ACTIVITY				P-1 ITEM NOMENCLATURE/SUBHEAD						
<b>Weapons Procurement, Navy</b>				<b>Weapons Industrial Facilities</b>						
<b>BA 2 - Other Missiles</b>										
COST CODE	ELEMENT OF COST	IDENT CODE	TOTAL COST IN THOUSANDS OF DOLLARS							
			FY 2000		FY 2001		FY 2002		FY 2003	
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
FU002	Capital Type Rehabilitation									
	Environmental			<u>6,044</u>		<u>7,201</u>		<u>6,321</u>		<u>4,582</u>
		(SEA)		2,841		2,853		2,888		2,843
		(AIR)		3,203		4,348		3,433		1,739
	Safety			<u>1,786</u>		<u>1,841</u>		<u>1,800</u>		<u>1,622</u>
		(SEA)		1,350		1,350		1,350		1,350
		(AIR)		436		491		450		272
	Major Repairs			<u>2,271</u>		<u>1,267</u>		<u>2,416</u>		<u>4,609</u>
		(SEA)		311		384		472		649
		(AIR)		1,960		883		1,944		3,960
	Energy Conservation			900		900		900		900
		(SEA)								
FU005	TOTAL Weapons Industrial Facilities									
		(SEA)		5,402		5,487		5,610		5,742
		(AIR)		5,599		5,722		5,827		5,971
<b>TOTAL</b>				<b>11,001</b>		<b>11,209</b>		<b>11,437</b>		<b>11,713</b>

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BUDGET ITEM JUSTIFICATION SHEET				February 1997				
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY/BA-2 Other Missiles				P-1 ITEM NOMENCLATURE FLEET SATELLITE COMMUNICATIONS (A) Q2EU				
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (in millions)	\$87.9	\$110.6						
<p>The Fleet Satellite Communications (FLTSATCOM) System satisfies Department of Defense (DOD) worldwide Ultra High Frequency (UHF) mobile user communication requirements. This includes protected fleet broadcast to all Navy ships plus command control for Anti-Submarine Warfare platforms, Fleet Ballistic Missile submarines, aircraft carriers, cruisers and other selected aircraft, ships and submarines. The system satisfies the Air Force equatorial satellite ecommunications requirements including Presidential airborne command post, Strategic Air Command and emergency mission support. Existing Fleet Satellite (FLTSAT) and Lease Satellite (LEASAT) assets will continue to be used as long as their performance is operationally acceptable. UHF/FO satellites are being deployed to replace the aging FLTSAT/LEASAT constellation.</p> <p>FY 1996 and FY 1997 funded launch service payments for satellites #7 through #9 and provide technical support for satellite production . FY 96 and FY 97 also funded the Global Broadcast System (GBS) ECP to F8, F9 and F10.</p> <p>The sixth satellite was launched in October 1995 and the seventh satellite was successfully launched in July 1996.</p>								

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WEAPON SYSTEM COST ANALYSIS							DATE: February 1997			
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE					
WEAPONS PROCUREMENT, NAVY/BA-2 - Other Missiles					FLEET SATELLITE COMMUNICATIONS (A)			Q2EU		
COST CODE	ELEMENT OF COST	IDENT CODE (2)	TOTAL COST IN THOUSANDS OF DOLLARS							
			FY 96		FY 97		FY 98		FY 99	
			QTY (3)	TOTAL COST (4)	QTY (5)	TOTAL COST (6)	QTY (7)	TOTAL COST (8)	QTY (9)	TOTAL COST (10)
02000	UHF FOLLOW-ON SPACECRAFT AND LAUNCH	N/A		26,467		22,272				
	Global Broadcast Services (GBS)			57,721		86,737				
	ENGINEERING SUPPORT	N/A		3,663		1,603				
	SUBTOTAL			87,851		110,612				
	<b>TOTAL PROGRAM</b>			<b>87,851</b>		<b>110,612</b>				



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								A. DATE	
								February 1997	
B. APPROPRIATION/BUDGET ACTIVITY				C. P-1 ITEM NOMENCLATURE					
OP,N - BA2 COMMUNICATIONS & ELECTRONIC EQUIPMENT				FLEET SATELLITE COMMUNICATIONS (A) Q2EU					
ITEM	TOTAL I/O REQUIREMENT	QUANTITY ON HAND & NOT IN USE	QUANTITY IN USE	QUANTITY DUE IN WITH FY 96 AND PRIOR FUNDS	PLANNED BUDGET YEAR (FY97) PROCUREMENT	PLANNED BUDGET YEAR (FY98) PROCUREMENT	PLANNED BUDGET YEAR (FY99) PROCUREMENT	BALANCE	PHASING RATIONALE
2000 UHF FOLLOW-ON S/C	9		6	3				None	COMPLETE
3000 LEASAT SPACECRAFT	3		3					None	COMPLETE
<b>MEMO ENTERED</b>									
<b>ITEM #1 2000 UHF FOLLOW-ON</b>									
<p>THE UHF-FOLLOW-ON (UHF/FO) SPACECRAFT CONSTELLATION WILL CONSIST OF EIGHT ON-ORBIT SATELLITES PLUS ONE ON-ORBIT SPARE. THE FIRST UFO SPACECRAFT, F1 , WAS LAUNCHED IN MARCH 1993, BUT WAS DECLARED A TOTAL LOSS DUE TO THE INABILITY TO REACH OPERATIONAL ORBIT BECAUSE OF LESS THAN EXPECTED PERFORMANCE OF THE LAUNCH VEHICLE. THE SECOND SPACECRAFT WAS SUCCESFULLY LAUNCHED IN SEPTEMBER 1993. THE THIRD SPACECRAFT WAS SUCCESSFULLY LAUNCHED IN JUNE 1994. THE FOURTH SPACECRAFT WAS SUCCESSFULLY LAUNCHED IN JANUARY 1995. THE FIFTH SPACECRAFT WAS SUCCESSFULLY LAUNCHED IN MAY 1995. F6 LAUNCHED IN OCTOBER 1995. IN JULY 1996, F7 WAS SUCCESSFULLY LAUNCHED. IN THE FY94 APPROPRIATION ACT, CONGRESS APPROVED FUNDING A REPLACEMENT FOR F1 WITH CONTRACT REMEDIES FUNDS AND CREDITS FROM THE F1 LOSS. THE SIXTH SATELLITE WAS SUCCESSFULLY LAUNCHED IN OCTOBER 1995. THE SEVENTH SATELLITE WAS SUCCESSFULLY LAUNCHED IN JULY 1996.</p>									
								<b>TOTAL I/O</b>	<u>9</u>
<b>ITEM #2 3000 LEASAT SPACECRAFT</b>			<b>ITEM #3</b> cost code item hull/location qty			<b>ITEM #4</b> cost code item hull/location qty			
<b>TOTAL I/O</b>						<b>TOTAL I/O</b>			<u>3</u>
									<u>3</u>

CLASSIFICATION **UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40					DATE: January 1997			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles					P-1 ITEM NOMENCLATURE Ordnance Support Equipment			
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
QUANTITY								
COST (In Millions)	\$9.7	\$14.2	\$5.3	\$8.7	\$3.0	\$3.4	\$4.5	\$5.8
<p>No justification materials are submitted in this backup book due to security considerations.</p>								