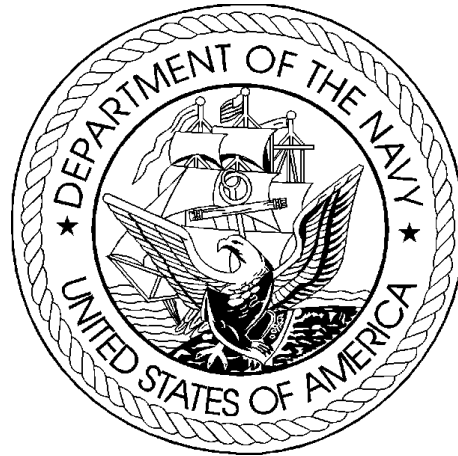


DEPARTMENT OF THE NAVY  
FISCAL YEAR (FY) 2005  
BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES  
FEBRUARY 2004

WEAPONS PROCUREMENT, NAVY

UNCLASSIFIED  
 Department of the Navy  
 FY 2005 Procurement Program  
 SUMMARY  
 (\$ IN MILLIONS)

Exhibit P-1  
 DATE: February 2004

Appropriation: Weapons Procurement, Navy ACTIVITY -----	FY 03 -----	FY 04 -----	FY 05 -----
1. Ballistic Missiles	574.3	646.7	770.0
2. Other Missiles	1,207.5	1,085.0	937.5
3. Torpedoes and Related Equipment	152.9	172.7	189.0
4. Other Weapons	92.9	127.4	137.1
6. Spares and Repair Parts	53.1	48.4	68.0
	-----	-----	-----
	2,080.7	2,080.2	2,101.5

UNCLASSIFIED

Department of the Navy

FY 2005 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: February 2004

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS) FY 2005 UNIT COST	TOA, \$ IN MILLIONS						S E C
				-----FY 2003-----		-----FY 2004-----		-----FY 2005-----		
				QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
BUDGET ACTIVITY 01: Ballistic Missiles										
-----										
Ballistic Missiles										
1	1150 Trident II	A	22,752,200	12	171.0	12	186.2	5	113.8	U
	Less: Advance Procurement (PY)				-12.8		-49.8		-40.7	
					-----		-----		-----	
					158.2		136.4		73.1	
Modification Of Missiles										
2	1250 TRIDENT II Mods	A			414.8		509.0		695.6	U
Support Equipment And Facilities										
3	1350 Missile Industrial Facilities	A			1.3		1.3		1.3	U
					-----		-----		-----	
TOTAL	Ballistic Missiles				574.3		646.7		770.0	

UNCLASSIFIED

Department of the Navy

FY 2005 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: February 2004

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS) FY 2005 UNIT COST	TOA, \$ IN MILLIONS						S E C
				-----FY 2003----- QUANTITY	COST	-----FY 2004----- QUANTITY	COST	-----FY 2005----- QUANTITY	COST	
BUDGET ACTIVITY 02: Other Missiles										
-----										
Strategic Missiles										
4	2101 Tomahawk	A	874,389	350	437.1	350	352.6	293	256.2	U
5	2307 ESSM		1,131,169	23	42.0	82	102.0	71	80.3	U
Tactical Missiles										
6	2206 AMRAAM	A	737,261	76	50.5	42	37.4	46	33.9	U
7	2209 Sidewinder	A	224,057	284	52.0	102	25.6	157	35.2	U
8	2230 JSOW	B	358,373	532	159.6	328	117.6	389	139.4	U
9	2231 SLAM-ER			120	82.6	77	50.8			- U
10	2234 Standard Missile	A	2,001,307	93	151.4	75	147.2	75	150.1	U
11	2242 RAM	A	526,800	106	59.2	90	48.0	90	47.4	U
12	2280 Aerial Targets	A			66.6		77.7		72.7	U
13	2285 Drones and Decoys	A			13.7		16.9			- U
14	2290 Other Missile Support	A			11.6		10.9		10.4	U
Modification Of Missiles										
15	2315 Sidewinder Mods	A			.6		-			- U
16	2327 HARM Mods	A			3.9		-			- U
17	2356 Standard Missiles Mods	A			54.2		50.5		51.8	U
Support Equipment And Facilities										
18	2420 Weapons Industrial Facilities	A			17.1		32.7		4.0	U
Ordnance Support Equipment										
19	2500 Ordnance Support Equipment	A			5.3		15.2		56.1	U

\* ITEMS UNDER \$50,000

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Department of the Navy

FY 2005 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: February 2004

		TOA, \$ IN MILLIONS								
LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS)	-----FY 2003----		-----FY 2004----		-----FY 2005----		S E C
			FY 2005 UNIT COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
TOTAL	Other Missiles			1,207.5		1,085.0		937.5		

UNCLASSIFIED

Department of the Navy

FY 2005 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: February 2004

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS) FY 2005 UNIT COST	TOA, \$ IN MILLIONS						S E C
				-----FY 2003-----		-----FY 2004-----		-----FY 2005-----		
				QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
BUDGET ACTIVITY 03: Torpedoes and Related Equipment										
-----										
Torpedoes And Related Equipment										
20	3141 ASW Targets	A			9.4		25.3		24.0	U
Mod Of Torpedoes And Related Equip										
21	3215 MK-46 Torpedo Mods	A			37.8		42.3		61.4	U
22	3225 MK-48 Torpedo ADCAP Mods	A			60.6		59.9		61.2	U
23	3231 Quickstrike Mine	B			2.0		3.2		3.0	U
Support Equipment										
24	3301 Torpedo Support Equipment	A			24.5		24.8		23.4	U
25	3302 ASW Range Support	A			15.9		14.5		12.9	U
Destination Transportation										
26	2410 First Destination Transportation	A			2.7		2.8		3.1	U
TOTAL Torpedoes and Related Equipment					152.9		172.7		189.0	

\* ITEMS UNDER \$50,000

UNCLASSIFIED

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UNCLASSIFIED

Department of the Navy

FY 2005 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: February 2004

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS) FY 2005 UNIT COST	TOA, \$ IN MILLIONS						
				-----FY 2003-----		-----FY 2004-----		-----FY 2005-----		S E C
				QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
BUDGET ACTIVITY 04: Other Weapons										
-----										
Guns And Gun Mounts										
27	4129 Small Arms and Weapons	A			9.7		4.2		2.2	U
28	4206 COAST GUARD WEAPONS	A			-		-		5.3	U
29	4225 Airborne Mine Neutralization Systems				.7		-		-	U
Modification Of Guns And Gun Mounts										
30	4205 CIWS Mods	A			57.5		49.1		86.1	U
31	4210 5/54 Gun Mount Mods	A			11.4		-		-	U
32	4217 Gun Mount Mods				-		48.9		25.9	U
Other										
33	4222 Pioneer	A			8.8		10.1		8.8	U
34	4223 Cruiser Modernization Weapons	A			-		15.2		8.8	U
35	4500 Cancelled Account Adjustments	A			4.7		-		-	U
TOTAL Other Weapons					92.9		127.4		137.1	

\* ITEMS UNDER \$50,000

UNCLASSIFIED

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UNCLASSIFIED

Department of the Navy

FY 2005 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: February 2004

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS) FY 2005 UNIT COST	TOA, \$ IN MILLIONS						S E C
				-----FY 2003----		-----FY 2004----		-----FY 2005----		
				QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
BUDGET ACTIVITY 06: Spares and Repair Parts										
-----										
Spares and Repair Parts										
36	6120 Spares and Repair Parts	A			53.1		48.4		68.0	U
	TOTAL Spares and Repair Parts				53.1		48.4		68.0	

UNCLASSIFIED

Department of the Navy

FY 2005 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: February 2004

		TOA, \$ IN MILLIONS								
LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS)	-----FY 2003----		-----FY 2004----		-----FY 2005----		S E C
			FY 2005 UNIT COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
TOTAL	Weapons Procurement, Navy			2,080.7		2,080.2		2,101.5		

**Fiscal Year 2005 Budget Estimates  
Budget Appendix Extract Language**

**WEAPONS PROCUREMENT, NAVY (WPN)**

For construction, procurement, production, modification, and modernization of missiles, torpedoes, other weapons, and related support equipment including spare parts, and accessories therefor; expansion of public and private plants, including the land necessary therefor, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, [\$2,095,784,000] \$2,101,529,000, to remain available for obligation until September 30, [2006] 2007. (10 U.S.C. 5013, 5062; Department of Defense Appropriations Act, 2004.)

BUDGET ITEM JUSTIFICATION SHEET									DATE	
									February 2004	
APPROPRIATION/BUDGET ACTIVITY				P-1 ITEM NOMENCLATURE						
WEAPONS PROCUREMENT, NAVY / BUDGET ACTIVITY 1 BALLISTIC MISSILES				TRIDENT II MISSILE UGM-133A (D-5)						
\$ in Millions	Prior Years	FY 03	FY 04	FY 05	FY06	FY07	FY08	FY09	To Complete	Total Program
QUANTITY	396	12	12	5						425
End Cost	\$14,663.7	\$285.5	\$289.7	\$122.9	\$0.0	\$0.0	\$0.0	\$0.0	\$479.1	\$15,840.9
Less: Prior Year Adv. Proc.	(\$1,680.8)	(\$127.3)	(\$153.3)	(\$49.8)	\$0.0	\$0.0	\$0.0	\$0.0	(\$479.1)	(\$2,490.3)
Full Funding TRIDENT II	\$12,982.9	\$158.2	\$136.4	\$73.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$13,350.6
Plus: Current Year Adv. Proc.	\$2,490.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,490.3
Plus: Initial Spares	\$35.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$35.4
Total New Obligational Authority	\$15,508.6	\$158.2	\$136.4	\$73.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,876.3
Missile Flyaway Unit Cost	\$15.4	\$23.8	\$24.2	\$24.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$16.0

**NOTE: P-1 data for TRIDENT II End Cost and Advance Procurement in FY2003 through FY2005 are incorrect, but were not discovered until after P-1 printing. The correct information is provided above. P-1 Full Funding data are correct and match the data above.**

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

Funding in this line is required to support the procurement of TRIDENT II missiles, initial production of which commenced in FY 1987 and supported a TRIDENT II missile Initial Operational Capability (IOC) in March 1990. Beginning in FY 2001, funds were included for D-5 life extension to ensure that Strategic Weapons System life matches the extended Ohio-class hull life. In FY 2003 Congress transferred the funding for D-5 life extension and missile support costs to a separate P-1 line item (TRIDENT II Modifications).

The FY 2004 request includes \$136.4 million to complete production of 12 FY2004-authorized missiles for a 14 SSBN TRIDENT II program, which assumes the backfit of four C-4 boats to the D-5 configuration.

The FY 2005 request includes \$73.1 million to complete production of 5 FY2005-authorized missiles.

The Navy requests the addition of specific language in the FY 2005 DoD Appropriations Bill as follows: "The Weapons Procurement, Navy appropriation includes \$8.854 million of cash payments to be deposited in the UK Trust Fund under the terms of the 28 July 1998 Secretary of Defense Memorandum of Understanding (MOU) with the United Kingdom." The financial addendum to the MOU specifies annual payments totaling \$50.3 million for FY 2001 - FY 2005 subject to Congressional authorization and appropriation. These funds purchase D-5 missile components required for the U.S. program and are included within the full funding request for airframe and motor flyaway costs.

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WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)		A. WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 1		B. UGM-133A TRIDENT II (D-5) MISSILE (3IDL)		C. LOCKHEED MARTIN MISSILES AND SPACE CO. SUNNYVALE, CA		D. February 2004					
WEAPON SYSTEM COST ELEMENTS	Ident. Code	Unit cost	Qty	TOTAL COST	FY 03 Unit cost	Qty	TOTAL COST	FY04 Unit cost	Qty	TOTAL COST	FY05 Unit cost	Qty	TOTAL COST
<b>MISSILE END COST</b>							<u>1/</u>			<u>1/</u>			<u>1/</u>
1 AIRFRAME & MOTOR FLYAWAY COST					<b>23,799</b>	<b>12</b>	285,586	<b>24,140</b>	<b>12</b>	289,678	<b>24,572</b>	<b>5</b>	122,862
2 GUIDANCE FLYAWAY COST							0			0			0
3 SUBTOTAL MISSILE AND GUIDANCE FLYAWAY COST							285,586			289,678			122,862
LESS: PRIOR YEAR ADVANCE PROCUREMENT							(127,337)			(153,268)			(49,795)
4 SUBTOTAL MISSILE AND GUIDANCE END COST NEW OBLIGATIONAL AUTHORITY (NOA)							158,249			136,410			73,067
<i>1/ Includes payments for FY 2003 through FY 2005 of \$17,067, \$9776 and \$8854 to the UK Trust Fund.</i>													
<b>TRIDENT II MODIFICATIONS</b>													
A. <u>SUPPORT COSTS</u>													
5 WARHEAD COMPONENTS													
6 SPECIAL PURPOSE INSTRUMENTATION													
7 SPECIAL PURPOSE TOOLING & TEST EQUIPMENT													
8 ARMS CONTROL													
9 CONTAINERS													
10 SYSTEM INTEGRATION & PLANNING													
11 SWFLANT PRODUCTION SUPPORT													
12 SUPPORTABILITY MODS													
13 GUIDANCE PARTS PROCUREMENT													
14 SWFPAC PRODUCTION SUPPORT													
15 EOP MISSILE AND GUIDANCE COSTS													
16 PIGA													
B. <u>D5 LIFE EXTENSION</u>													
17 MISSILE HARDWARE													
18 REDESIGN													
19 PRODUCTION SUPPORT													
SUBTOTAL MODIFICATIONS													
<b>CURRENT YEAR FULL FUNDING</b>							<b>158,249</b>			<b>136,410</b>			<b>73,067</b>
<b>PLUS: CURRENT YEAR ADVANCE PROCUREMENT</b>							<b>0</b>			<b>0</b>			<b>0</b>
<b>TOTAL NEW OBLIGATIONAL AUTHORITY</b>							<b>158,249</b>			<b>136,410</b>			<b>73,067</b>

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)								DATE: February 2004		
B. WEAPONS PROCUREMENT NAVY BUDGET ACTIVITY 1							P-1 ITEM NOMENCLATURE: TRIDENT II MISSILE UGM-133A (D-5)			
COST ELEMENT/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES, WHEN AVAILABLE
1. TRIDENT II MSL. FY 2003	LOCKHEED MARTIN MISSILES AND SPACE CO. (LMMS) SUNNYVALE, CA	SS/CPIF	STRATEGIC SYSTEMS PROGRAMS (SSP)	01/03	10/04	12	23,799	YES	NO	
FY 2004	LMMS	SS/CPIF	SSP	01/04	10/05	12	24,140	YES	NO	
FY 2005	LMMS	SS/CPIF	SSP	10/04	10/06	5	24,572	YES	NO	
D. REMARKS										



UNCLASSIFIED

FY 01 BUDGET PRODUCTION SCHEDULE										P-1 ITEM NOMENCLATURE: TRIDENT II MISSILE UGM - 133A (D-5)										DATE: February 2004																			
ITEM/MANUFACTURER PROCUREMENT YEAR	FISCAL YEAR 2007												FISCAL YEAR 2007												FISCAL YEAR 2008												L A T E R		
	CALENDAR YEAR 2007												CALENDAR YEAR 2007												CALENDAR YEAR 2008														
	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
TRIDENT II MISSILE FY 2005	1	1	1	1	1																																		0
TOTAL	1	1	1	1	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	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																																							

<b>BUDGET ITEM JUSTIFICATION SHEET</b>	DATE February 2004
--	-----------------------

<b>APPROPRIATION/BUDGET ACTIVITY</b> WEAPONS PROCUREMENT, NAVY / BUDGET ACTIVITY 1 BALLISTIC MISSILES	<b>P-1 ITEM NOMENCLATURE</b> TRIDENT II MODIFICATIONS
--	--

\$ in Millions	Prior Years	FY 03	FY 04	FY 05	FY06	FY07	FY08	FY09	To Complete	Total Program
QUANTITY	0						12	24	79	115
End Cost	\$0.0	\$414.8	\$509.0	\$695.6	\$926.6	\$926.7	\$1,045.0	\$1,135.6	\$5,888.1	\$11,541.4
Less: Prior Year Adv. Proc.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Full Funding TRIDENT II	\$0.0	\$414.8	\$509.0	\$695.6	\$926.6	\$926.7	\$1,045.0	\$1,135.6	\$5,888.1	\$11,541.4
Plus: Current Year Adv. Proc.	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Plus: Initial Spares	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total New Obligational Authority	\$0.0	\$414.8	\$509.0	\$695.6	\$926.6	\$926.7	\$1,045.0	\$1,135.6	\$5,888.1	\$11,541.4
Missile Flyaway Unit Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$32.5	\$28.5	\$27.7	\$28.4

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

Funding in this line is required to support the procurement of TRIDENT II missiles, initial production of which commenced in FY 1987 and supported a TRIDENT II missile Initial Operational Capability (IOC) in March 1990. Prior to FY 2003, funds for the D-5 missile production and associated support efforts were in another P-1 line item. In FY 2003 Congress transferred the funding for D-5 life extension and associated support costs to this P-1 line item.

The FY 2004 request of \$509.0 million includes \$279.6 million for D-5 life extension to sustain production of D-5 missile motors and other critical components, and \$229.4 million for program and production support costs, including flight test instrumentation, additional reentry systems hardware, continued support required to maintain SWFLANT's TRIDENT II missile processing capability, and equipment procurements associated with establishing full TRIDENT II capability at the Strategic Weapons Facility, Pacific (SWFPAC) at Bangor, WA. The D-5 life extension funding request procures D-5 missile motors and other critical components required to support the extended 45-year SSBN hull life (for a 14 SSBN TRIDENT II program, which assumes the backfit of four C-4 boats to the D-5 configuration) and sustains the redesign of the guidance system and missile electronics, which must be replaced to support the extended service life.

The FY 2005 request of \$695.6 million includes \$431.4 million for D-5 life extension to sustain production of D-5 missile motors and other critical components, and \$264.2 million for program and production support costs, including flight test instrumentation, additional reentry systems hardware, continued support required to maintain SWFLANT's TRIDENT II missile processing capability, and equipment procurements associated with establishing a TRIDENT II capability at the Strategic Weapons Facility, Pacific (SWFPAC) at Bangor, WA. The D-5 life extension funding request procures D-5 missile motors and other critical components required to support the extended 45-year SSBN hull life (for a 14 SSBN TRIDENT II program, which assumes the backfit of four C-4 boats to the D-5 configuration) and sustains the redesign of the guidance system and missile electronics, which must be replaced to support the extended service life.

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WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)		A. WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 1		B. UGM-133A TRIDENT II MODIFICATIONS (31DM)		C. LOCKHEED MARTIN MISSILES AND SPACE CO. SUNNYVALE, CA		D. February 2004					
WEAPON SYSTEM COST ELEMENTS	Ident. Code	Unit cost	Qty	TOTAL COST	FY 03 Unit cost	Qty	TOTAL COST	FY04 Unit cost	Qty	TOTAL COST	FY05 Unit cost	Qty	TOTAL COST
<b>MISSILE END COST</b>													
1													
AIRFRAME & MOTOR FLYAWAY COST													
2													
GUIDANCE FLYAWAY COST													
3													
SUBTOTAL MISSILE AND GUIDANCE FLYAWAY COST													
LESS: PRIOR YEAR PROCUREMENT													
4													
SUBTOTAL MISSILE AND GUIDANCE END COST NEW OBLIGATIONAL AUTHORITY (NOA)													
<b>TRIDENT II MODIFICATIONS</b>													
<u>A. SUPPORT COSTS</u>													
5							178,530			229,360			264,155
WARHEAD COMPONENTS													
6							19,300			56,900			73,500
SPECIAL PURPOSE INSTRUMENTATION													
7							60,350			49,200			57,600
SPECIAL PURPOSE TOOLING & TEST EQUIPMENT													
8							19,300			21,500			21,900
ARMS CONTROL													
9							2,300			0			0
CONTAINERS													
10							40			40			40
SYSTEM INTEGRATION & PLANNING													
11							13,700			13,700			14,100
SWFLANT PRODUCTION SUPPORT													
12							12,550			12,600			31,300
SUPPORTABILITY MODS													
13							6,300			24,000			27,830
GUIDANCE PARTS PROCUREMENT													
14							6,700			6,800			7,000
SWFPAC PRODUCTION SUPPORT													
15							17,440			21,220			13,635
EOP MISSILE AND GUIDANCE COSTS													
16							7,800			6,700			0
PIGA													
							12,750			16,700			17,250
<u>B. D5 LIFE EXTENSION</u>													
17							236,263			279,600			431,400
MISSILE HARDWARE													
18							171,200			184,300			268,100
REDESIGN													
19							55,300			93,600			158,400
PRODUCTION SUPPORT													
SUBTOTAL MODIFICATIONS							414,793			508,960			695,555
<b>CURRENT YEAR FULL FUNDING</b>							<b>414,793</b>			<b>508,960</b>			<b>695,555</b>
<b>PLUS: CURRENT YEAR ADVANCE PROCUREMENT</b>							<b>0</b>			<b>0</b>			<b>0</b>
<b>TOTAL NEW OBLIGATIONAL AUTHORITY</b>							<b>414,793</b>			<b>508,960</b>			<b>695,555</b>

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<b>BUDGET ITEM JUSTIFICATION SHEET</b>	DATE February 2004
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<b>APPROPRIATION/BUDGET ACTIVITY</b> WEAPONS PROCUREMENT, NAVY / BUDGET ACTIVITY 1 BALLISTIC MISSILES	<b>P-1 ITEM NOMENCLATURE</b> MISSILE INDUSTRIAL FACILITIES
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	Prior Years	FY03	FY04	FY05	FY06	FY07	FY08	FY09	To Complete	Total Program
QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cost (in millions)	N/A	\$1.3	\$1.3	\$1.3	\$1.4	\$1.4	\$1.4	\$1.4	N/A	N/A
Initial Spares	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total (in Millions)	N/A	\$1.3	\$1.3	\$1.3	\$1.4	\$1.4	\$1.4	\$1.4	N/A	N/A
Unit Cost (in Millions)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

Projects planned in FY 2005 include additions and modifications to, and rehabilitation of, civil works, non-severable equipment, and real property. Among those projects are upgrades and improvements such as upgrading building electrical systems, replacing conductive floors, replacing insulation, replacing water and steam piping, paving roads and parking areas and painting buildings.

**UNCLASSIFIED**

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)			A. WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 1			B. MISSILE INDUSTRIAL FACILITIES (31DG)			C. LOCKHEED MARTIN MISSILES AND SPACE CO. SUNNYVALE, CA			February 2004	
WEAPON SYSTEM COST ELEMENTS	Ident. Code	Unit cost	Qty	TOTAL	FY03		TOTAL	FY04		TOTAL	FY05		TOTAL
				COST	Unit cost	Qty	COST	Unit cost	Qty	COST	Unit cost	Qty	COST
CAPITAL MAINTENANCE							1,293			1,295			1,334
TOTAL MISSILE INDUSTRIAL FACILITIES							1,293			1,295			1,334

BUDGET ITEM JUSTIFICATION SHEET										DATE:	
P-40										February 2004	
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE					
<b>Weapons Procurement, Navy</b>						<b>Tomahawk (MYP)</b>					
Program Element for Code B Items:						Other Related Program Elements					
<b>BA2/Other Missiles</b>			<b>P.E. #0204229N</b>								
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	4,226	B	350	350	293	419	434	485	424		6,981
Gross P-1 Cost (\$M)	\$8,012.851		\$437.054	\$302.645	\$265.178	\$359.372	\$390.435	\$454.786	\$427.010	\$0.000	\$10,649.331
EOQ Credit					-\$8.982	-\$12.845	-\$13.305	-\$14.868			-\$50.000
Net P-1 Cost (\$M)	\$8,012.851		\$437.054	\$302.645	\$256.196	\$346.527	\$377.130	\$439.918	\$427.010	\$0.000	\$10,599.331
Adv Proc/EOQ (\$M)				\$50.000							\$50.000
Wpn Sys Cost (\$M)	\$8,012.851		\$437.054	\$352.645	\$256.196	\$346.527	\$377.130	\$439.918	\$427.010	\$0.000	\$10,649.331
Initial Spares (\$M)	\$313.518										\$313.518
Proc Cost (\$M)	\$8,326.369		\$437.054	\$352.645	\$256.196	\$346.527	\$377.130	\$439.918	\$427.010	\$0.000	\$10,962.849
Unit Cost (\$M)	\$1.970		\$1.249	\$1.008	\$0.874	\$0.827	\$0.869	\$0.907	\$1.007	\$0.000	\$1.570

**Description:**  
 Tomahawk provides an attack capability against targets on land (Tomahawk Land Attack Missile (TLAM)), and can be launched from both surface ships (RGM) and submarines (UGM).

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

Production of the Tactical Tomahawk missile began with Low Rate Initial Production (LRIP) buys of 25 in FY2002 and 350 in FY2003. Full rate production commences in FY2004. FY2004-FY2008 unit cost based on approval of multi-year procurement (MYP). The contractor's production offer of \$569 (FY99\$) level unit price, plus Government incentives and award fees are factored into the multi-year pricing. The FY04 Authorization and Appropriations Act authorized the Navy to pursue a MYP contract. If MYP is not approved, additional funds will be required to maintain procurement quantity. FY2004 EOQ supports economic order quantity procurements for the MYP.

Characteristics and dimensions (approximate) Contractor: Raytheon Missiles Systems Company  
 Weight (with booster and capsule) (UGM-109): 4,300 pounds  
 Weight (with booster and canister) (RGM-109): 4,000 pounds  
 Length (with booster): 20.5 feet  
 Wing Span: 8.6 feet  
 Cruise Speed: High Subsonic

FY2003 Iraq Freedom Fund (IFF) - \$193 million, replaces 183 missiles expended in OIF.  
FY2002 Defense Emergency Response Fund (DERF) - \$350 million, 454 missiles remanufactured to the Block III configuration.

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WEAPONS PROCUREMENT, NAVY  
 FY 2005 DEPARTMENT OF THE NAVY BUDGET  
 MISSILE COST ANALYSIS  
 EXHIBIT P-5  
 (Dollars in Thousands)

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

Date: February 2004

Cost Elements	Prior Years	FY 2003	Quantity	FY 2004	Quantity	FY 2005	Quantity			
	Total Cost	Quantity	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
<u>Missile Hardware</u>										
Previous Tomahawk Production	5,611,035									
Tactical Tomahawk	35,298	350	1,077	376,950	350	652	228,305	293	663	194,113
Remanufacture (Block III)	<u>592,217</u>									
Subtotal Hardware	6,238,550	350		<u>376,950</u>	350	<u>228,305</u>		293		<u>194,113</u>
<u>Non-Recurring Tooling</u>										
	24,500			13,590						
<u>Other Hardware*</u>										
CCLS Submarine Capsules	962	113	199	22,470	125	233	29,124	97	282	27,306
Canisters	<u>846</u>	237	62	<u>14,792</u>	225	87	<u>19,486</u>	196	90	<u>17,628</u>
Subtotal Other Hardware	1,808	350		<u>37,262</u>	350	<u>48,610</u>		293		<u>44,934</u>
<u>Production Support</u>										
Product Improvement	378,947									
Systems Engineering	283,203			3,841		10,682				10,849
Production Engineering	<u>608,057</u>			<u>3,694</u>		<u>10,272</u>				<u>10,432</u>
Subtotal Production Support	1,270,207			7,535		20,954				21,281
Total Flyaway Cost	7,535,065			435,337		297,869				260,328
<u>Other Support Costs</u>										
Theater Mission Planning Center	255,044									
Support Equipment	114,354			584		1,624				1,649
Training Equipment	79,420			824		2,292				2,328
Documentation	<u>28,968</u>			<u>309</u>		<u>860</u>				<u>873</u>
Subtotal Other Support Costs	477,786			<u>1,717</u>		<u>4,776</u>				<u>4,850</u>
Total Support Costs	477,786			1,717		4,776				4,850
Gross P-1	8,012,851			437,054		302,645				265,178
EOQ Credit										-8,982
Net P-1	8,012,851			437,054		302,645				256,196
EOQ						50,000				
Weapon Systems Cost	8,012,851			437,054		352,645				256,196
Initial Spares	<u>313,518</u>									
Total Program Cost	8,326,369		1,249	<u>437,054</u>		<u>352,645</u>		874		<u>256,196</u>
<u>Non Add: FY 2002 DERF</u>										
Tomahawk Remanufacture	350,000									

\*The unit cost for Canisters and Capsules is derived from the most economical combination of used (refurbished), upgraded, and new Canisters and Capsules.

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System TOMAHAWK		A. DATE February 2004			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA2/Other Missiles					C. P-1 ITEM NOMENCLATURE Tomahawk (PEO(W)) (BLI: 210100) (MYP)				SUBHEAD J2EL	
COST ELEMENT/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<u>TACTOM All-Up-Round</u> 01000/FY02	25	1,412	NAVAIR	Jun 01	SS/FPI	Raytheon Missile Systems Co., Tucson, AZ	Oct 02	May 04	YES	N/A
01000/FY03	167	1'250	NAVAIR	Jun 01	SS/FPI	Raytheon Missile	Jan 03	Oct 04	YES	N/A
01000/FY03	183	920	NAVAIR	Nov 03	SS/FP	Raytheon Missile Systems Co., Tucson, AZ	Jan 04	Sep 05	YES	N/A
01000/FY04*	350	653	NAVAIR	Jul 03	SS/FP (MYP)	Raytheon Missile Systems Co., Tucson, AZ	Jun 04	Jan 06	YES	N/A
01000/FY04 for FY05-FY08 EOQ			NAVAIR	Jul 03	AAC/MYP	Raytheon Missile Systems Co, Tucson, AZ	Jun 04		YES	N/A
01000/FY05*	293	664	NAVAIR	Jul 03	SS/FP (MYP)	Raytheon Missile Systems Co., Tucson, AZ	Jun 04	Nov 06	YES	N/A
<u>TLAM REMAN</u> FY 2002 DERF	454	771	NAVAIR	Dec 01	SS/FP	Raytheon Missile Systems Co., Tucson, AZ	Dec 01	Aug 03	YES	N/A

D. Remarks: \*Quantity based upon Tactical Tomahawk Multi-year Procurement in FY2004-FY2008.



**CLASSIFICATION: UNCLASSIFIED**

FY 2004/2005 DEPARTMENT OF THE NAVY BUDGET PRODUCTION SCHEDULE, P-21						DATE		February 2004																												
APPROPRIATION/BUDGET ACTIVITY						Weapon System			P-1 ITEM NOMENCLATURE																											
Weapons Procurement, Navy						TOMAHAWK			Tomahawk (PEO(W))(BLI: 210100) (MYP)																											
		Production Rate			Procurement Leadtimes																															
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																						
Tactical Tomahawk (FY04)	Raytheon Missiles Systems Co.																																			
	Tucson, AZ					N/A	24	42	7	9	16		32	Each																						
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2006													FISCAL YEAR 2007				B A L													
						2005			CALENDAR YEAR 2006										CALENDAR YEAR 2007																	
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B		M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
Block IV Tomahawk (TACTOM)	2003		183	38	145	38	38	38	31																								0			
Block IV Tomahawk (TACTOM)	2004		350	0	350					7	38	38	38	38	38	38	38	38	38	1													0			
Block IV Tomahawk (TACTOM)	2005		293	0	293																37	38		38	38	38	38	38	28				0			
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2008													FISCAL YEAR 2009				B A L													
						2007			CALENDAR YEAR 2008										CALENDAR YEAR 2009																	
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B		M A R	A P R	M A Y	J U N	J U L	A U G	S E P						
Remarks:																																				

Exhibit MYP-1, Multiyear Procurement Criteria  
Program: Tactical Tomahawk

1. Multiyear Procurement Description:

This proposed multiyear procurement (MYP) covers the purchase of 1981 Block IV Tactical Tomahawk missiles in FY 2004 through FY 2008 under a single five-year fixed-price contract. These missiles constitute the first five years of Full Rate Production (FRP) of Tactical Tomahawk, following two years of Low Rate Initial Production (LRIP) in FY 2002 and FY 2003, during which 192 Tactical Tomahawk missiles will be produced. An additional LRIP has been funded via the FY2003 Supplemental Appropriations, and will procure an estimated 183 missiles prior to the beginning of the MYP in FY2004. This MYP strategy has been structured to achieve significant savings while providing increased operational responsiveness, flexibility and reliability.

The MYP up front investment costs for non-recurring start-up expenses were funded in FY 2002 and FY 2003 as part of the LRIP effort to support planned FRP in FY 2004. Advanced procurement in the amount of \$50M is provided as part of the FY 2004 budget to cover economic order quantities. As compared to annualized procurements, this multiyear procurement will achieve \$133M of savings over the five-year period. This is equivalent to 9.0% of the total annualized cost to procure the same quantity.

The MYP contract will set a target quantity for each fiscal year of the contract, but allow for a quantity range of missiles in each fiscal year to allow the Government the flexibility to meet emergent requirements for more missiles, including those for foreign military sales customers, while maintaining the MYP and the savings established in the baseline. This flexibility can also accommodate a range of missile deletions without forgoing MYP benefits, but deletions may erode some of the overall savings due to a reduction in economies of scale and the amortization of non-recurring efforts, which will have already occurred.

2. Benefits to the Government:

a. Substantial Savings:

Implementation of this MYP will yield significant opportunity for cost avoidance through the five-year term of this contract. The total cost savings/avoidance for FY 2004 through FY 2008 associated with this contract are estimated to be \$133M (TY\$). The cost savings will be generated as a result of Economic Order Quantity (EOQ) and investment in program specific capital equipment and/or processes that would not meet the contractor's Internal Rate of Return objectives under annualized procurements. Some examples include:

Williams International will level-load procurement of cruise missile engine components, such as the start cartridges and pyro igniters, which will allow for the development of a sustainable, efficient production flow process, including the optimization of component acceptance testing, at all tiers of the engine supply chain.

Exhibit MYP-1, Multiyear Procurement Criteria  
Program: Tactical Tomahawk

Economic Order Quantity purchases of rocket motor sub-components such as the arm fire device, nozzle throat components, motor casing forgings and the Satellite Data Link Transceiver Viastat.

Administrative costs will be reduced due to there being one proposal, negotiation and contract award process instead of five consecutive single-year contracting actions. Cost reductions will also be realized since the prime contractor can enter into one five-year contract with its subcontractors, at all tiers, instead of five separate actions. The prime contractor will also experience administrative cost reductions in the production planning processes since they will only be required to perform that process once, instead of five times under an annual contracting scenario.

Additionally, given a five-year contract, suppliers will have a greater total business base and stability than would otherwise be the case. As such, they will have added incentive and more opportunity to identify innovative processes and justify capital investments necessary to reduce costs.

b. Stability of Requirement:

The requirement for the Block IV Tactical Tomahawk All Up Round is based on the Tomahawk Baseline IV Operational Requirements Document (ORD) approved 1 Feb 00. The ORD has been updated to reflect the evolution of operational requirements including increased system flexibility to support receipt of missile/mission status, enroute retargeting of the missile to alternate preplanned and preloaded aimpoints or missions via third party command, reduced system response time to enable engagement of emerging and relocatable targets, and improved lethality against a wider target set. The Key Performance Parameters identified in the ORD have remained stable from program inception and are anticipated to remain stable through the production period. These performance parameters have been flowed down and in some areas enhanced in the missile level specification required under the development and production contracts.

As a critical first strike weapon, Tactical Tomahawk production is of operational significance to the Fleet Commanders, who consistently list Tomahawk inventory as one of their top fleet issues. The planned Tactical Tomahawk program contained in the budget will significantly improve inventory posture, a task which has become more critical after Operations Enduring Freedom and Iraqi Freedom where significant numbers of Tomahawks were expended in combat. The currently fielded Block III missile went out of production in 1998, and through emergency supplemental funds in FY99 and FY02, all remaining Block II and some older TASM and Surface-N missiles will be remanufactured to Block III capability. Only 304 of the older TASM and Surface-N missiles remain as potential remanufacture candidates, and these represent the least economically feasible pool for remanufacture. Block IV Tactical Tomahawk production is the best candidate for increasing the inventory of Tomahawk Missiles and will provide more capability at a quicker rate than another Reman program could.

Exhibit MYP-1, Multiyear Procurement Criteria  
Program: Tactical Tomahawk

c. Stability of Funding:

The Navy has demonstrated its commitment to a stable funding stream for the Tactical Tomahawk multiyear through every step of the PPBS process. The use of Tomahawk in recent operations has further reduced the inventory of Tomahawk assets to support future, deep-strike, land attack missions. Congress has expressed the desire to enter Tactical Tomahawk production at the earliest opportunity by providing additional funding in FY02 (Congressional Add) for the procurement of non-recurring engineering/special tooling and test equipment to realize Full Rate Production levels as soon as possible and increasing FY04 appropriation to \$352.645M (including congressional undistributed adjustments) for 350 missiles. In addition, the Navy provided funding in FY03 for the remaining non-recurring costs.

d. Stable Design:

The Tactical Tomahawk has undergone a five-year Engineering & Manufacturing Development (E&MD) phase. This phase included significant component level testing, AUR level qualification testing, system level integration testing, Functional Ground Tests and two Contractor Development Test Flights (DT-0 and DT-1) of the All-Up-Round. The DT-0 test flight was successfully conducted in Aug 02, and the DT-1 test flight was successfully conducted in Nov 02. Both test flights demonstrated and met all required test objectives. The technical success and design maturity demonstrated by the DT-0 and DT-1 tests allowed for the initiation of the Low-Rate Initial Production I (LRIP-I) program in Oct 02 and the LRIP-2 option award in Jan 03, respectively. The Tactical Tomahawk AUR is meeting and in most areas exceeding its design performance requirements.

All four TECHEVAL shots, including two live warhead shots, were flown in FY2003 and each successfully met all test objectives. The program has completed all Government Technical Evaluation (TECHEVAL) events and has entered Operational Evaluation Testing. Operational Evaluation (OPEVAL) testing will complete in 2<sup>nd</sup> quarter FY04 followed by Initial Operational Capability (IOC). The FRP decision, Milestone III, is scheduled for 3<sup>rd</sup> quarter of FY04 with the multiyear procurement contract to be awarded immediately following.

In conclusion, Tactical Tomahawk has completed its design development and is meeting and exceeding all design performance requirements. Government testing activities will provide the final design interface verification assessment to ensure that the complete weapon system design configuration is stable prior to commencement of full rate production. The contractor's technical success, production and experience from prior Block Tomahawks, and the substantial knowledge gained over the Tactical Tomahawk's test program, provide for a technically mature design with which to enter into a MYP.

Exhibit MYP-1, Multiyear Procurement Criteria  
Program: Tactical Tomahawk

e. Realistic Cost Estimate:

The Program Office in conjunction with the contractor, the NAVAIR Cost Analysis group (AIR-4.2), and NAVAIR contracts (AIR-2.4) has participated in the formulation of a Common Cost Model. The Navy Center for Cost Analysis had an advisory position on this team. The Common Cost Model is based upon estimated costs to the Prime contractor based on invoices, purchase orders, sub-contractor proposed prices, and the material and labor costs from LRIP. This model was used to derive both projected Multi-year and Annualized costs by accounting for differences in sub-contractor proposals for multi-year versus stand-alone contracts. In addition to this Common Cost Model, NCCA formulated a projected unit cost based on parametric analysis. The estimated unit cost for Tactical Tomahawk in FRP based on the Common Cost Model is within the range predicted by NCCA.

f. National Security:

The Quadrennial Defense Review, Defense Planning Guidance and Navy Non Nuclear Ordinance Requirement have set the requirements for Tomahawk significantly above current inventory levels. In support of National Security requirements and future objectives, the establishment of a sustaining industrial base with surge capability for this critical first strike weapon is essential in supporting the National Military Strategy.

3. Source of Savings:

	<u>\$ in Millions</u>
Inflation	2.99
Vendor Procurement	63.64
Manufacturing	45.35
Other	<u>20.83</u>
Total	132.81

4. Advantages of the MYP

This MYP strategy has been structured to achieve significant savings (\$133M) over annualized procurements. The MYP strategy is also planned to allow a quantity range of missiles in each FY, allowing the Government the flexibility to meet emergent requirements for more missiles, potentially including that for foreign military sales customers, while maintaining the MYP and the savings already established in the baseline. This flexibility can also yield missile deletions without forgoing MYP benefits, but this may erode some of the overall savings due to a reduction in economies of scale and the amortization of non-recurring efforts, which will have already occurred.

Exhibit MYP-1, Multiyear Procurement Criteria  
Program: Tactical Tomahawk

5. Impact on Industrial Base:

Implementation of this MYP will also yield a favorable impact on the industrial base. The stability afforded by the use of a MYP will allow the prime contractor to enter into long term agreements with subcontractors and suppliers, at every tier, which will provide substantial cost avoidance. Such long term agreements incentivize both the prime and subcontractors to invest in process improvements such as those cited above, thereby yielding long term benefits in terms of product quality and cost. The stability of the prime multiyear contract will also foster improved competition at the subcontractor level, as the offer of a longer term business arrangement will encourage more aggressive pursuit of a contract award. The contractor and subcontractors will face reduced risk when implementing production process improvements, facility improvements, tooling design improvements, and fabrication process improvements. The ability for the Government and industry to enter into a long term agreement will allow industry the opportunity to place capital investments upfront, which reduces the overall cost and improves the quality of the Tactical Tomahawk missile.

6. Multiyear Procurement Summary: (\$M)

	<u>Annual Contracts</u>	<u>MYP Alternate</u>
Quantity	1,981	1,981
Total Contract Price	\$1,476.7	\$1,343.9
Cancellation Ceiling (highest point)		
<i>Funded</i>		
<i>Unfunded</i>		\$17.4
\$ Cost Avoidance Over Annual		\$132.8
% Cost Avoidance Over Annual		9.0%

Exhibit MYP-2, Total Program Funding Plan				Date <b>February 2004</b>							
Appropriation/Budget Activity Weapons Procurement Navy/BA-2 Other Missiles				P-1 Line Item Nomenclature TOMAHAWK (J2EL)(PEO(W))(BLI:210200)							
	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Total
<b>Procurement Quantity</b>				350	293	419	434	485			1981
<b>Annual Procurement</b>											
Gross Cost				342299	292374	383155	412825	474579			1905232
Less PY Adv Procurement				-	-	-	-	-			-
Net Procurement (=P-1)				342299	292374	383155	412825	474579			1905232
Plus CY Adv Procurement				-	-	-	-	-			-
Weapon System Cost				342299	292374	383155	412825	474579			1905232
<b>Multiyear Procurement</b>											
Gross Cost (P-1)				302645	265178	359372	390435	454786			1772416
Less PY Adv Procurement				-	-8982	-12845	-13305	-14868			-50000
Net Procurement (=P-1)				302645	256196	346527	377130	439918			1722416
Advance Procurement											
For FY 2004				-	-	-	-	-			
For FY 2005				8982	-	-	-	-			8982
For FY 2006				12845	-	-	-	-			12845
For FY 2007				13305	-	-	-	-			13305
For FY 2008				14868	-	-	-	-			14868
Total Adv Procurement				50000	-	-	-	-			50000
Weapon System Cost				352645	256196	346527	377130	439918			1772416
<b>Multiyear Savings (\$)</b>				-10346	36178	36628	35695	34661			132816
Cancellation Ceiling - Funded											
Cancellation Ceiling - Unfunded				15686	17353	16335	10950				
<b>OUTLAYS</b>											
Annual				21778	229006	340838	355003	411457	359248	187902	1905232
Multiyear				27733	206610	310908	341834	378143	330048	177140	1772416
Savings				-5955	22396	29930	13169	33314	29200	10762	132816
Remarks											

Exhibit MYP-3, Contract Funding Plan				Date <b>February 2004</b>							
Appropriation/Budget Activity Weapons Procurement Navy/BA-2 Other Missiles				P-1 Line Item Nomenclature TOMAHAWK (J2EL)(PEO(W))(BLI:210200)							
	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Total
<b>Procurement Quantity</b>				350	293	419	434	485			1981
<b>Annual Procurement</b>											
Gross Cost				267959	221309	306650	320982	359778			1476678
Less PY Adv Procurement				-	-	-	-	-			-
Net Procurement (=P-1)				267959	221309	306650	320982	359778			1476678
Plus CY Adv Procurement				-	-	-	-	-			-
Contract Price				267959	221309	306650	320982	359778			1476678
<b>Multiyear Procurement</b>											
Gross Cost (P-1)				228305	194113	282867	298592	339985			1343862
Less PY Adv Procurement				-	-8982	-12845	-13305	-14868			-50000
Net Procurement (=P-1)				228305	185131	270022	285287	325117			1293862
Advance Procurement											
For FY 2004				-	-	-	-	-			
For FY 2005				8982	-	-	-	-			8982
For FY 2006				12845	-	-	-	-			12845
For FY 2007				13305	-	-	-	-			13305
For FY 2008				14868	-	-	-	-			14868
Total Adv Procurement				50000	-	-	-	-			50000
Contract Price				278305	185131	270022	285287	325117			1343862
<b>Multiyear Savings (\$)</b>				-10346	36178	36628	35695	34661			132816
<b>Multiyear Savings (%)</b>											9.0%
Cancellation Ceiling - Funded											
Cancellation Ceiling - Unfunded				15686	17353	16335	10950				
<b>OUTLAYS</b>											
Annual				2227	185040	284289	282703	323005	287708	111706	1476678
Multiyear				8182	162644	254359	269534	289691	258508	100944	1343862
Savings				-5955	22396	29930	13169	33314	29200	10762	132816
Remarks											

Exhibit MYP-4, Present Value Analysis					Date <b>February 2004</b>						
Appropriation/Budget Activity Weapons Procurement Navy/BA-2 Other Missiles				P-1 Line Item Nomenclature TOMAHAWK (J2EL)(PEO(W))(BLI:210200)							
	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Total
<b>Annual Proposal</b>											
Then Year Cost				2,227.000	185,040.000	284,289.000	282,703.000	323,005.000	287,708.000	111,706.000	1,476,678.000
Constant Year Cost				2,262.000	187,376.000	285,188.000	277,739.000	311,736.000	273,702.000	105,568.000	1,443,571.000
Present Value				2,290.000	185,077.000	274,818.000	261,112.000	285,926.000	244,918.000	92,162.000	1,346,303.000
<b>Multiyear Procurement</b>											
Then Year Cost				8,182.000	162,644.000	254,359.000	269,534.000	289,691.000	258,508.000	100,944.000	1,343,862.000
Constant Year Cost				8,311.000	164,722.000	255,294.000	265,512.000	279,681.000	245,907.000	95,397.000	1,314,824.000
Present Value				8,414.000	162,701.000	246,011.000	249,617.000	256,525.000	220,046.000	83,283.000	1,226,597.000
<b>Difference</b>											
Then Year Cost				-5,955.000	22,396.000	29,930.000	13,169.000	33,314.000	29,200.000	10,762.000	132,816.000
Constant Year Cost				-6,049.000	22,654.000	29,894.000	12,227.000	32,055.000	27,795.000	10,171.000	128,747.000
Present Value				-6,124.000	22,376.000	28,807.000	11,495.000	29,401.000	24,872.000	8,879.000	119,706.000
Remarks											

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 2004					
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>							P-1 ITEM NOMENCLATURE <b>Tomahawk EOQ (MYP)</b>					
Program Element for Code B Items: <b>BA2/Other Missiles P.E. #0204229N</b>							Other Related Program Elements					
	Prior Years	ID Code	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
COST (In Millions)		<b>B</b>			<b>\$50.000</b>							<b>\$50.000</b>
<p><b>MISSION AND DESCRIPTION:</b>            Tomahawk provides an attack capability against targets on land (Tomahawk Land Attack Missile (TLAM)), and can be launched from both surface ships (RGM) and submarines (UGM).             Tomahawk consists of the following variants: (1) UGM -109A, Land Attack Nuclear; (2) RGM/UGM-109B, Antiship; (3) RGM/UGM-109C, Land Attack Conventional; (4) RGM/UGM-109D, Land Attack Submunition Dispenser; (5) RGM/UGM-109E, Tactical Tomahawk. The Land Attack Anti-ship Surface Launch Nuclear versions are no longer in Fleet use. The land-attack version in the Fleet is used for precision destruction of targets at long range.             Production of the Tactical Tomahawk missile began with Low Rate Initial Production (LRIP) buys of 25 in FY2002 and 167 in FY2003. Full rate production will commence in FY2004. FY2004-FY2008 unit cost based on approval of multi-year procurement (MYP). FY2004 is the only year that includes advanced procurement funding for the Multi-Year Procurement (MYP) contract. The amount includes Economic Order Quantity (EOQ) requirements to support the MYP contract.</p>												

**UNCLASSIFIED**

Exhibit P-10 Advance Procurement Requirements Analysis <b>(Page 1 - Funding)</b>							Date: <b>February 2004</b>						
Appropriation (Treas) Code/CC/BA/BSA/Item Control Number <b>Weapons Procurement, Navy/BA-2, Other Missiles</b>							P-1 Line Item Nomenclature <b>Tomahawk EOQ (MYP)</b>						
Weapon System <b>Tomahawk</b>				First System (BY1) Award Date <b>June 2004</b>				Interval Between Systems <b>Avg 9 Missiles Per Week</b>					
(\$ in Millions)													
	PLT	When Rqd	Prior Years	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	To Complete	Total
Tactical Tomahawk Qty						350	293	419	434	485			1981
EOQ													
FOR FY2005						9.0							9.0
FOR FY2006						12.8							12.8
FOR FY2007						13.3							13.3
FOR FY2008						14.9							14.9
<b>Total AP</b>			0	0	0	50.0	0	0	0	0	0	0	50.0
<b>Description:</b>													
This line item funds EOQ requirements for the FY2004 through FY2008 MYP Tomahawk program.													

P-1 Shopping List Item No.

Exhibit P-10, Advance Procurement Requirements Analysis

Item No. 4

Page No. 2

Exhibit P-10 Advance Procurement Requirements Analysis <b>(Page 2 - Budget Justification)</b>						Date: <b>February 2004</b>				
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number <b>Weapons Procurement, Navy/BA-2, Other Missiles</b>					Weapon System <b>Tomahawk</b>		P-1 Line Item Nomenclature <b>Tomahawk EOQ (MYP)</b>			
(TOA, \$ in Millions)										
	CY PLT	QPA	Unit Cost	FY 2003 for FY 2004 Qty	FY 2003 Contract Forecast Date	FY 2003 Total Cost Request	FY 2004 for FY 2005 Qty	FY 2004 Contract Forecast Date	FY 2004 Total Cost Request	
End Item										
Tactical Tomahawk EOQ							VAR	Jun-04	50.0	
<b>Total Advance Proc</b>						0.0			50.0	
<b>Description:</b>										

<b>BUDGET ITEM JUSTIFICATION SHEET</b>											<b>DATE:</b> <b>February 2004</b>	
<b>P-40</b>												
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b> <b>BA-2: Other Missiles</b>							P-1 ITEM NOMENCLATURE  <b>Evolved SEASPARROW Missile (ESSM) (LI#230700)</b>					
Program Element for Code B Items:  <b>0604755N, Proj. 20173</b>							Other Related Program Elements					
	FY 2002 and Prior	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	45			23	82	71	116	108	137	112	330	1024
COST (\$M)	\$117.1	B		\$42.0	\$102.0	\$80.3	\$99.1	\$99.2	\$115.9	\$98.6	\$338.4	\$1,092.6
Initial Spares (\$M)	\$0.6			\$1.8	\$1.0	\$1.2	\$1.5	\$1.8	\$2.1	\$2.3	Cont.	\$12.3

**PROGRAM OVERVIEW:**

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

ESSM is a cooperative effort among ten NATO SEASPARROW nations (Australia, Canada, Denmark, Germany, Greece, Netherlands, Norway, Spain, Turkey, and the U.S.). An addendum to the NATO SEASPARROW Surface Missile System Memorandum of Understanding (MOU), covering the Engineering and Manufacturing Development (EMD) phase of the ESSM was signed in June 1995. The MOU for the cooperative production of ESSM was signed 27 December 1997 with an initial U.S. production intent of 2076 missiles. The current U.S. production intent is 1024 missiles. Authority to enter into Low Rate Initial Production (LRIP) for 207 missiles was granted 07 March 2001.

The FY 05 request will support the first Full Rate Production contract award of 71 missiles plus U.S. share of support as defined in the MOU. Additionally, the U.S. is required to pay its share of non-recurring investment for performance characterization studies.

ESSM RDT&E funding is included in program element 0604755N, Project 20173 and the program element 0604756N, Project 20173.

**UNCLASSIFIED**

CLASSIFICATION:

WEAPONS SYSTEM COST ANALYSIS P-5			Weapon System <b>Evolved SEASPARROW Missile (ESSM)</b>									DATE: <b>February 2004</b>						
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-2: Other Missiles</b>			ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD <b>ESSM - 230700</b>									SUBHEAD <b>A2ES</b>					
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS															
			FY 2002 and Prior			FY 2003			FY 2004			FY 2005						
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
ES001	<u>Missile Hardware</u>																	
	MK 41/AEGIS All-Up-Round		35,534				23	903	20,759	63	779	49,059	53	799	42,368			
	MK 29 All-Up-Round									19	676	12,844	18	693	12,480			
	Warhead Compatible Telemeter (WCT)		1,474				12	59	708	21	65	1,356	11	64	709			
	Fuze ECP Backfit		4,700															
	Shipping Containers									19	8	152	18	8	144			
	Radome Life of Type buy		832						2,947									
	HC-434 Propellant Binder (SEASPARROW)		600															
	Rocket motors (SEASPARROW)		1,400							400	15	6,000						
	MK 25 Quadpack Canisters		3,260				6	300	1,800	18	291	5,238	14	351	4,914			
	Total Hardware		47,800						26,214			74,649			60,615			
ES830	<u>Procurement Support</u>																	
	Tooling and Test Equipment		17,486						1,400			2,818						
	Performance Characterization		5,795									10,000			5,000			
	Production Engineering		45,984						14,412			14,542			14,698			
	Total Procurement Support		69,265						15,812			27,360			19,698			
	Total Flyaway Cost		117,065						42,026			102,009			80,313			
ES002	<u>Fleet Support</u>																	
	Total Fleet Support																	
	Weapon System Cost		117,065						42,026			102,009			80,313			
			<b>117,065</b>						<b>42,026</b>			<b>102,009</b>			<b>80,313</b>			

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CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System <b>ESSM</b>			A. DATE <b>February 2004</b>		
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-2 Other Missiles</b>					C. P-1 ITEM NOMENCLATURE <b>ESSM 230700</b>				SUBHEAD <b>A2ES</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>FISCAL YEAR - 2003</b>										
MK 41/AEGIS All-Up-Round	23	903	NAVSEA	Oct 2001	SS/FFP	Raytheon Co., Tucson AZ	Dec 02	Feb 05	Yes	Mar 00
WCT	12	59	NAVSEA	Oct 2001	SS/FFP	Raytheon Co., Tucson AZ	Dec 02	Feb 05	Yes	Mar 00
MK 25 Canister	6	300	NAVSEA	Jan 2003	SS/FFP	United Defense, Minneapolis, MN	Jun 03	Nov 04	Yes	
<b>FISCAL YEAR - 2004</b>										
MK 41/AEGIS All-Up-Round	63	779	NAVSEA	May 2003	SS/FFP	Raytheon Co., Tucson AZ	Nov 03	Apr 05	Yes	Mar 00
MK 29 All-Up-Round	19	676	NAVSEA	May 2003	SS/FFP	Raytheon Co., Tucson AZ	Nov 03	Apr 05	Yes	Mar 00
WCT	21	65	NAVSEA	May 2003	SS/FFP	Raytheon Co., Tucson AZ	Nov 03	Apr 05	Yes	Mar 00
Shipping Container	19	8	NAVSEA	May 2003	SS/FFP	Raytheon Co., Tucson AZ	Nov 03	Apr 05	Yes	Mar 00
Rocket Motor (SEASPARROW)	400	15	NAVAIR			Alliant Techsystems , Rocket Center WV				
MK 25 Canister	18	291	NAVSEA	Oct 2003	SS/FFP	United Defense, Minneapolis, MN	Jan 04	Jul 05	Yes	
<b>FISCAL YEAR - 2005</b>										
MK 41/AEGIS All-Up-Round	53	799	NAVSEA	May 2004	SS/FFP	Raytheon Co., Tucson AZ	Nov 04	Nov 06	Yes	Mar 00
MK 29 All-Up-Round	18	693	NAVSEA	May 2004	SS/FFP	Raytheon Co., Tucson AZ	Nov 04	Nov 06	Yes	Mar 00
WCT	11	64	NAVSEA	May 2004	SS/FFP	Raytheon Co., Tucson AZ	Nov 04	Nov 06	Yes	Mar 00
Shipping Container	18	8	NAVSEA	May 2004	SS/FFP	Raytheon Co., Tucson AZ	Nov 04	Nov 06	Yes	Mar 00
MK 25 Canister	14	351	NAVSEA	Oct 2004	SS/FFP	United Defense, Minneapolis, MN	Jan 05	Jul 06	Yes	
D. REMARKS										
A long lead material contract or the FY-04 procurement was awarded in Nov 2003. Estimated award date of the full contract is Feb 2004.										

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FY 2004/05 BUDGET PRODUCTION SCHEDULE, P-21							DATE	February 2004																							
APPROPRIATION/BUDGET ACTIVITY					Weapon System		P-1 ITEM NOMENCLATURE																								
Weapons Procurement, Navy/BA-(2) Other Missiles					ESSM		A2ES BLI 230700																								
		Production Rate			Procurement Leadtimes																										
Item	Manufacturer's Name and Location				MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																		
Item	Manufacturer's Name and Location				MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																		
EVOLVED SEASPARROW MISSILE	Raytheon Co, Tucson AZ				120	300	576	6	6	24	24	36	E																		
MK 25 CANISTER	United Defense, Minneapolis				120	330	480	3	4	24	20	27	E																		
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2006										B A L														
							2005			CALENDAR YEAR 2006						CALENDAR YEAR 2007															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
ESSM/Raytheon	2004	N	82	0	58	4	4	4	4	4	4	4	4	4	4	6	6	6													0
MK 25 Canister/United Defense	2004	N	18	0	10	2		4		4																				0	
ESSM/Raytheon	2005	N	71	0	71														6	6	6	6	6	6	6	6	6	6	6	5	
MK 25 Canister/United Defense	2005	N	14	0	14										3		3		3		3	3	2							0	
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2008										FISCAL YEAR 2009										B A L				
							2007			CALENDAR YEAR 2008						CALENDAR YEAR 2009															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
ESSM/Raytheon	2005	N	71	66	5	5																								0	
MK 25 Canister/United Defense	2005	N	14	14	0																									0	
Remarks:																															

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											Feb 2004	
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE					
<b>Weapons Procurement, Navy/BA 2 Other Missiles</b>							<b>AMRAAM</b>					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	1,592			76	42	46	101	150	140	150	122	2,419
COST (\$M)	\$1,131.2			\$50.0	\$37.4	\$33.9	\$82.5	\$100.6	\$85.1	\$87.0	\$104.1	\$1,711.7
Initial Spares (\$M)	\$25.5			\$0.4	\$0.4	\$0.4	\$0.9	\$1.2	\$2.2	\$3.0	\$3.0	\$37.0
Total (\$M)	\$1,156.7			\$50.4	\$37.8	\$34.3	\$83.4	\$101.8	\$87.3	\$90.0	\$107.1	\$1,748.7
Unit Cost (\$M)	\$0.727			\$0.657	\$0.890	\$0.737	\$0.817	\$0.671	\$0.608	\$0.580	\$0.853	\$0.708
<p>MISSION AND DESCRIPTION:</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. 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>FY2005 PROGRAM JUSTIFICATION:</p> <p>46 missiles will be procured in FY 2005 along with non-recurring support costs such as; government field activity technical, test, and logistics support, procurement of test articles, test equipment to support the AIM-120C configuration, and procurement of peculiar support equipment.</p> <p>FY03 matches actual program value as of 30 September 2003.</p>												

Columns may not add due to rounding.

P-1 SHOPPING LIST

CLASSIFICATION:

DD Form 2454, JUN 86

ITEM NO

6

PAGE NO 1

**UNCLASSIFIED**

**WEAPONS PROCUREMENT, NAVY  
 FY 2005 PRESIDENT'S BUDGET  
 MISSILE COST ANALYSIS  
 EXHIBIT P-5  
 (Dollars in Millions)**

Missile Nomenclature & Popular Name:

**AMRAAM**

Date: **Feb 2004**

Cost Elements	1,592 Prior Years Total Cost	FY 2003			FY 2004			FY 2005		
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
<b>Missile Hardware</b>										
All-Up-Round	725.796	76	0.447	33.985	42	0.431	18.097	46	0.345	15.868
ECO	21.297			0.461			0.446			0.508
ST&TE	45.114			1.451			3.100			3.500
Production Tech Support	164.942			5.073			4.555			5.412
Containers/Ancillary Eq	2.230			0.000			3.000			1.000
Production Test	60.459			5.938			4.301			4.054
<b>Total Flyaway Cost</b>	<b>1,019.838</b>	<b>76</b>	<b>0.617</b>	<b>46.908</b>	<b>42</b>	<b>0.798</b>	<b>33.499</b>	<b>46</b>	<b>0.660</b>	<b>30.342</b>
<b>Fleet Support</b>										
Test Equipment	58.196			0.450			0.312			0.308
Handling Equipment	0.795			0.000			0.000			0.000
Training Equipment	4.551			0.130			0.158			0.164
ILS	45.480			2.316			3.243			2.930
Data & Pubs	2.361			0.158			0.156			0.170
<b>Total Fleet Support</b>	<b>111.383</b>			<b>3.054</b>			<b>3.869</b>			<b>3.572</b>
<b>Weapon System Cost</b>	<b>1,131.221</b>	<b>76</b>	<b>0.657</b>	<b>49.962</b>	<b>42</b>	<b>0.890</b>	<b>37.368</b>	<b>46</b>	<b>0.737</b>	<b>33.914</b>
<b>Modifications</b>										
Initial Spares	25.401			0.398			0.391			0.372
<b>Total Program Cost</b>	<b>1,156.622</b>	<b>76</b>	<b>0.663</b>	<b>50.360</b>	<b>42</b>	<b>0.899</b>	<b>37.759</b>	<b>46</b>	<b>0.745</b>	<b>34.286</b>

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System <b>AMRAAM</b>		A. DATE <b>Feb 2004</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy / BA 2 Other Missiles</b>					C. P-1 ITEM NOMENCLATURE <b>AMRAAM</b>				SUBHEAD <b>Y2GB</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST NAVY DELIVERY	TECHNICAL DATA PACKAGES AVAILABLE NOW	IF NO WHEN AVAILABLE
FY 2003	76	447	Eglin AFB, FI	10-1-02	SS/FP	Lot XVII Raytheon Missile Systems, Tucson AZ	3/31/03	04/05	YES	
FY 2004	42	431	Eglin AFB, FI	10-1-03	SS/FP	Lot XVIII Raytheon Missile Systems, Tucson AZ	1/5/04	10/05	YES	
FY 2005	46	345	Eglin AFB, FI	10-1-04	SS/FP	Lot XIX CONTRACTOR	3/31/05	10/06	YES	
D. REMARKS										

**FY 2005 BUDGET PRODUCTION SCHEDULE, P-21** DATE February 2004

APPROPRIATION/BUDGET ACTIVITY: **Weapons Procurement, Navy/BA 2 Other Missiles** Weapon System: **AMRAAM** P-1 ITEM NOMENCLATURE: **AMRAAM**

Item	Manufacturer's Name and Location	Production Rate			Procurement Lead-times				Total	Unit of Measure
		MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT		
AMRAAM	Raytheon	450	960	1200	0	6	21	18	24	E

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2003												FISCAL YEAR 2004												B A L
						2002						CALENDAR YEAR 2003						CALENDAR YEAR 2004												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
AMRAAM FY 2002 (Lot 16)			916	0	916																									
Raytheon Systems Co.	02	AF	190	0	190																									
Raytheon Systems Co.	02	N	55	0	55																									
Raytheon Systems Co.	02	FMS	671	0	671								53	69	68	69	69	59	50	50	26	24	24	28	28	28	26		0	
AMRAAM FY 2003 (Lot 17)			431	0	431																									
Raytheon Systems Co.	03	AF	124	0	124																									
Raytheon Systems Co.	03	N	76	0	76																									
Raytheon Systems Co.	03	FMS	231	0	231																							8	223	
AMRAAM FY 2004 (Lot 18)																														
Raytheon Systems Co.	04	N	42	0	42																								42	

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005												FISCAL YEAR 2006												B A L
						2004						CALENDAR YEAR 2005						CALENDAR YEAR 2006												
						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	
AMRAAM FY 2002 (Lot 16)			916	728	188																									
Raytheon Systems Co.	02	AF	190	41	149	15	18	22	23	23	24	24																0		
Raytheon Systems Co.	02	N	55	16	39	5	5	5	6	6	6	6																0		
Raytheon Systems Co.	02	FMS	671	671	0																								0	
AMRAAM FY 2003 (Lot 17)			431	8	423																									
Raytheon Systems Co.	03	AF	124	0	124								9	24	24	24	24	19											0	
Raytheon Systems Co.	03	N	76	0	76								5	17	18	18	18												0	
Raytheon Systems Co.	03	FMS	231	8	223	24	23	10	12	21	22	22	23	23	22	21												0		
Raytheon Systems Co.	03	F-35	6	0	6																								0	

Remarks: F-35 Program Office funding with USAF R&D funds.

FY 2005 BUDGET PRODUCTION SCHEDULE, P-21											DATE		February 2004																
APPROPRIATION/BUDGET ACTIVITY						Weapon System					P-1 ITEM NOMENCLATURE																		
Weapons Procurement, Navy/BA 2 Other Missiles						AMRAAM					AMRAAM																		
		Production Rate				Procurement Lead-times																							
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure															
AMRAAM	Raytheon					450	960	1200	0	6	21	18	24	E															
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005										FISCAL YEAR 2006										B A L		
							2004		CALENDAR YEAR 2005										CALENDAR YEAR 2006										
							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
AMRAAM FY 2004 (Lot 18)				257	0	257																							
Raytheon Systems Co.		04	AF	159	0	159																							
Raytheon Systems Co.		04	N	42	0	42																							
Raytheon Systems Co.		04	FMS	34	0	34																							
Raytheon Systems Co.		04	A	15	0	15																							
Raytheon Systems Co.		04	MC	6	0	6																							
Raytheon Systems Co.		04	F-35	1	0	1																							
AMRAAM FY 2005 (Lot 19)				848	0	848																							
Raytheon Systems Co.		05	AF	202	0	202																							
Raytheon Systems Co.		05	N	46	0	46																							
Raytheon Systems Co.		05	FMS	600	0	600																							
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2007										FISCAL YEAR 2008										B A L		
							2006		CALENDAR YEAR 2007										CALENDAR YEAR 2008										
							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
AMRAAM FY 2005 (Lot 19)				848	0	848																							
Raytheon Systems Co.		05	AF	202	0	202	16	16	17	17	17	17	17	17	17	17													
Raytheon Systems Co.		05	N	46	0	46	3	3	4	4	4	4	4	4	4	4													
Raytheon Systems Co.		05	FMS	600	0	600	50	50	50	50	50	50	50	50	50	50													

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# UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											February 2004	
APPROPRIATION/BUDGET ACTIVITY								P-1 ITEM NOMENCLATURE				
Weapons Procurement, Navy/BA-2 Other Missiles								AIM-9X Sidewinder				
Program Element for Code B Items:								Other Related Program Elements 0207161N				
	Prior Years*	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	105	B		284	102	157	170	226	211	181	3501	4937
COST (\$M)	\$25.548			\$52.230	\$25.626	\$35.177	\$38.309	\$49.209	\$50.023	\$45.870	\$619.827	\$1,023.009
Initial Spares (\$M)	\$0.973			\$1.085	\$1.413	\$1.867	\$3.186	\$4.889	\$4.579	\$3.338	\$0.000	\$21.330
Total (\$M)*	\$24.821			\$53.315	\$27.039	\$37.044	\$41.495	\$54.098	\$54.602	\$49.208	\$619.827	\$1,044.339
Unit Cost (\$M)**	\$0.227			\$0.184	\$0.251	\$0.224	\$0.225	\$0.218	\$0.237	\$0.253		\$0.207

The AIM-9X (Sidewinder) short range air-to-air missile is a long-term evolution of the AIM-9 series of fielded missiles. The AIM-9X missile program provides 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 short-range air-to-air missile arena is essential and includes first shot, first kill opportunity against an enemy employing IR countermeasures. The AIM-9X employs several components common with the AIM-9M (fuse, rocket motor and warhead). Anti-Tamper features are being incorporated to protect improvements inherent in this design.

FY 2002 Program Justification: Lot 2 LRIP option was executed in Nov 2001.  
 FY 2003 Program Justification: Lot 3 LRIP option was executed in Nov 2002.  
 FY 2004 Program Justification: Lot 4 LRIP option will be executed in FY04.\*\*  
 FY 2005 Program Justification: Lot 5 FRP option will be executed in FY05.

The total quantity of missiles produced will be a combination of All up Rounds (AURs) and Captive Air Training Missiles (CATMs).

\* FY 2002 funding includes a \$1.7M Congressional add for the AIM-7 Sparrow DSM-156 Missiles Test Set Upgrade (added in the Operation and Maintenance, Navy appropriation and reclassified to the Weapons Procurement, Navy appropriation for execution purposes). DSM 156 is not a requirement of the AIM-9X Sidewinder program and has been excluded from the Total Program amounts.

\*\* Revised APB was signed in August 2003 converting Lot 4 from the first full rate production lot to LRIP 4.  
 \*\*\*Unit cost calculation does not include spares (effective Feb 2004 submit)

	AIM-9x Quantities	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
AIM-9X 220900	Navy	284	102	157	170	226	211	181
AIM-9X M09HA1	Air Force	286	256	248	261	262	260	254

FY03 matches actual program value as of 30 September 2003.

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WEAPONS PROCUREMENT, NAVY  
 FY 2005 President's Budget  
 MISSILE COST ANALYSIS  
 EXHIBIT P-5  
 (Dollars in Millions)

Date: February 2004

Missile Nomenclature Popular Name: AIM 9X SIDEWINDER

Cost Elements	Prior Years Total	FY 2003	Quantity	284	FY 2004	Quantity	102	FY 2005	Quantity	157
	Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Missile Hardware										
All Up Round	11.727	228	0.172	39.290	64	0.181	11.574	115	0.178	20.516
Captive Air Training Missile	4.976	56	0.122	6.809	38	0.152	6.073	42	0.158	6.618
Missile containers	0.382			0.682			0.470			0.438
Engineering Change Orders (ECO)	0.666			0.782			0.649			1.673
Special Test/Special Tooling Equipment	0.102			0.104			0.106			0.108
Non-Recurring										
Government SE/PM	2.190			2.277			2.663			2.648
Total Flyaway Cost	20.043	284	0.176	49.944	102	0.211	21.535	157	0.204	32.001
Fleet Support Cost										
Support Equipment (Peculiar Support/Bit Reprogram)	0.475			0.676			0.991			
Training										
Training Support	0.326			0.075			0.030			
Training Equipment										
DATM	0.427			0.213			0.000			
PEST										
CEST										
Airborne Test Equipment (ATE)	1.263			0.000			0.657			0.721
Data	0.045			0.072			0.079			0.063
Production Tech Support	1.269			1.250			2.334			2.392
Total Fleet Support	3.805			2.286			4.091			3.176
Weapons System Cost	23.848	284	0.184	52.230	102	0.251	25.626	157	0.224	35.177
Other Procurement Costs: Initial Spares	0.973			1.085			1.413			1.867
Total Program Cost	24.821			53.315			27.039			37.044
AIM-7 DSM-156 Test Set Upgrade (Cong Add)*	1.700									
Net P-1 Cost (Wpn Syst Cost+Cong Add-FY02 on	25.548									

\* \$1.7M Congressional add for the AIM-7 Sparrow DSM-156 Missiles Test Set Upgrade (added in the Operation&Maintenance, Navy appropriation and reclassified to the Weapons Procurement, Navy appropriation.

**Remarks:** FY 2003 unit cost includes cost of Seekers for 127 Navy and 128 AF weapons (Seeker costs previously budgeted beginning in FY 2004), and costs associated with "design to cost" contract profit clauses; FY 2004 unit cost includes cost of Seekers, Anti-tamper System, and incorporation of Control Actuation System design changes resulting from testing.

**Note:** Subtotals may be off by \$1K due to rounding.

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CLASSIFICATION: UNCLASSIFIED

B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	Y2ER
Weapons Procurement, Navy/BA-2 Other Missiles					AIM-9X Sidewinder					
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY02 AIM-9X LRIP 2 See Note 1	105	0.163	NAVAIR	May-96	Competitive-FPI	Raytheon System Co. Tucson, AZ	Nov 01	May 03	Yes	
FY03 AIM-9X LRIP 3 See Note 1	284	0.165	NAVAIR	May-96	Comp/FPI-Option	Raytheon System Co. Tucson, AZ	Nov 02	May 04	Yes	
FY04 AIM-9X LRIP 4 See Note 1	102	0.178	NAVAIR	May-03	Comp/FPI-Option	Raytheon System Co. Tucson, AZ	Jan 04	May 05	Yes	
FY05 AIM-9X LOT 5 See Note 1	157	0.176	NAVAIR	May-04	Comp/FPI-Option	Raytheon System Co. Tucson, AZ	Nov 04	May 06	Yes	
D. REMARKS										
1. Unit cost calculation assumes quantities remain constant. US Air Force procurement of 138 missiles (102 AUR, 36 CATM) in FY 02; 286 (204 AUR, 82 CATM) in FY03, and 256 missiles (186 AUR, 70 CATM) in FY04. Unit Cost consists of AUR, CATM and container.										





CLASSIFICATION: Unclassified

Date: February 2004

**BUDGET ITEM JUSTIFICATION SHEET  
P-40**

APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2 Other Missiles</b>				P-1 ITEM NOMENCLATURE <b>Joint Standoff Weapon (JSOW) (J2JS)</b>							
Program Element for Code B Items: <b>Code B - P.E. 0604727N</b>				Other Related Program Elements <b>0604727F, 27324F</b>							
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	1,046	B	532	328	389	412	380	422	444	7,847	11,800
COST (\$M)	\$551.31		\$159.62	\$117.57	\$139.41	\$143.40	\$138.16	\$147.03	\$155.23	\$1,668.40	3,220.13
Initial Spares (\$M)	\$0.73		\$0.00	\$0.05	\$0.05	\$0.02	\$0.01	\$0.01	\$0.00	\$0.00	\$0.88
Total (\$M)	\$552.04		\$159.62	\$117.62	\$139.46	\$143.42	\$138.18	\$147.04	\$155.23	\$1,668.40	3,221.01
Unit Cost (\$M)	0.527		0.300	0.358	0.358	0.348	0.364	0.348	0.350	0.213	0.273

Joint Standoff Weapons (JSOW) is a joint USN/USAF program with the USN as the lead service. The JSOW program provides an air-to-ground glide weapon (AGM-154) capable of attacking a variety of targets during day, night, and adverse weather conditions for use against fixed area targets. The JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of most target area surface-to-air threat systems. The JSOW Global Positioning System (GPS)/Inertial Navigation System (INS) capability will allow several target kills per aircraft sortie.

The JSOW Baseline variant (AGM-154A) has been integrated on USN (F/A-18CD/EF) and USAF (F-16C/D, B-2 and B-52) aircraft, with a Joint (A/F, USN) planned inventory of 11,800 units. USN will procure an inventory of 8,800 All-Up-Rounds (AURs) for integration on F/A-18 aircraft, and the USAF will procure an inventory of 523 AURs for integration on F-16C/D, F-15E, B-1B, B-52, and B-2 aircraft. The USAF terminated their portion of JSOW production in FY05. The JSOW-A and JSOW-C unit cost increased as a result of significantly fewer quantities being produced in the FYDP. Additionally, below the line costs increased due to USAF withdrawal and USN requirement to fund costs that were previously shared. JSOW Baseline completed initial Operational Test in July 1997. The JSOW Baseline (154A) commenced Full Rate Production (FRP) in FY 99. A production contract for JSOW-As was awarded in FY 02 (using FY 01 funds) based on a successful control section ECP Critical Design Review (CDR). The ECP effort was completed in Dec 02 and verified through successful weapon launches from F-16 and F-18 aircraft in follow-on operational test and evaluation (OT-III). The FY03 column includes the addition of \$55M to replenish weapons expended in Operation Iraqi Freedom.

The JSOW Unitary variant (AGM-154C) utilizes the common airframe of the AGM-154A and B variants and incorporates an infrared uncooled seeker with Autonomous Targeting acquisition. The payload of choice is the 500 pound class Broach multi-stage warhead. AGM-154C was approved for Low Rate Initial Production on 26 June 2003. Full Rate Production of the AGM-154C begins in 2004. The Navy's planned inventory is 3000 JSOW AGM-154C AURs.

TY\$  
 Missile Nomenclature & Popular Name: Joint Standoff Weapons (JSOW) Date: February 2004  
 P-40a AGM-154  
**UNCLASSIFIED**

<u>Cost Elements</u>	Prior Years <u>Total Cost</u>	<b>FY 2003</b> <u>Quantity</u>	Quantity <u>Unit Cost</u>	<u>Total Cost</u>	<b>FY 2004</b> <u>Quantity</u>	Quantity <u>Unit Cost</u>	<u>Total Cost</u>	<b>FY 2005</b> <u>Quantity</u>	Quantity <u>Unit Cost</u>	<u>Total Cost</u>
<u>Missile Hardware</u>										
All Up Round (AUR)	280.178		0.226	120.028		0.238	77.957		0.272	105.845
Contractor (Warranty/ECO/Data)	82.428			2.963			10.160			4.394
Total Hardware	362.606	532	0.231	122.991	328	0.269	88.117	389	0.283	110.239
<u>Procurement Support</u>										
LC GEU/Control	11.056			0.000			0.000			0.000
JMPS INTEGRATION	1.469			1.218			0.000			0.000
Gov't In-house/Prod Supt	47.696			10.265			11.948			7.384
Special Tools and Test Equip	61.786			7.324			8.186			6.269
Containers	13.405			4.296			2.498			3.185
Telemetry	14.751			3.364			2.582			3.811
Command & Launch/ST&E/Mission/SW	25.784			9.540			3.540			5.905
Total Procurement Support	175.946			36.007			28.754			26.554
Total Flyaway Cost	538.552	532	0.299	158.998	328	0.356	116.871	389	0.352	136.793
<u>Fleet Support</u>										
ILS/Support	10.522			0.627			0.699			2.614
Total Fleet Support	10.522			0.627			0.699			2.614
Weapons System Cost	549.074	532	0.300	159.625	328	0.358	117.570	389	0.358	139.407
LRIP-2 Acceleration	2.236									
Net P-1 Cost	551.310			159.625			117.570			139.407
Modifications										
Initial Spares	0.727			0.000			0.049			0.050
Total Program Cost	552.037	532	0.300	159.625	328	0.359	117.619	389	0.359	139.457

TY\$  
 Missile Nomenclature & Popular Name:  
 P-40a  
**UNCLASSIFIED**

Joint Standoff Weapons (JSOW)  
 AGM-154A

Date: February 2004

<u>Cost Elements</u>	Prior Years	FY 2003	Quantity		FY 2004	Quantity		FY 2005	Quantity	
	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
<u>Missile Hardware</u>										
All Up Round (AUR)	265.682		0.191	93.393		0.190	43.856		0.217	46.835
Contractor (Warranty/ECO/Data)	82.428			0.427			6.682			3.817
Total Hardware	348.110	490	0.191	93.820	231	0.219	50.538	216	0.234	50.652
<u>Procurement Support</u>										
LC GEU/Control	11.056			0.000			0.000			0.000
JMPS INTEGRATION	1.469			1.218			0.000			0.000
Gov't In-house/Prod Supt	47.545			10.015			10.747			7.134
Special Tools and Test Equip	53.366			2.035			0.896			3.963
Containers	13.288			3.819			2.096			1.764
Telemetry	14.751			3.364			2.582			3.811
Command & Launch/ST&E/Mission/SW	25.140			9.540			3.266			4.947
Total Procurement Support	166.614			29.991			19.587			21.619
Total Flyaway Cost	514.724	490	0.253	123.811	231	0.304	70.125	216	0.335	72.271
<u>Fleet Support</u>										
ILS/Support	10.522			0.627			0.699			2.344
Total Fleet Support	10.522			0.627			0.699			2.344
Weapons System Cost	525.246	490	0.254	124.438	231	0.307	70.824	216	0.345	74.615
LRIP-2 Acceleration	2.236									
Net P-1 Cost	527.482			124.438			70.824			74.615
Modifications										
Initial Spares	0.727			0.000			0.049			0.050
Total Program Cost	528.209	490	0.254	124.438	231	0.307	70.873	216	0.346	74.665

TY\$  
 Missile Nomenclature & Popular Name:  
 P-40a

Joint Standoff Weapons (JSOW)  
 AGM-154B

Date: February 2004

**UNCLASSIFIED**

Cost Elements	Prior Years	FY 2003	Quantity	Total Cost	FY 2004	Quantity	Total Cost	FY 2005	Quantity	Total Cost
	Total Cost	Quantity	Unit Cost		Quantity	Unit Cost		Quantity	Unit Cost	
<u>Missile Hardware</u>										
All Up Round (AUR)	14.496		0.000	0.000	-		0.000	-		0.000
Contractor (Warranty/ECO/Data)	0.000			0.000			0.000			0.000
Total Hardware	14.496	00 -		0.000	00 -		0.000	00 -		0.000
<u>Procurement Support</u>										
LC GEU/Control										
JMPS INTEGRATION										
Gov't In-house/Prod Supt	0.151			0.000			0.000			0.000
Special Tools and Test Equip	3.900			0.000			0.000			0.000
Containers	0.117			0.000			0.000			0.000
Telemetry	0.000			0.000			0.000			0.000
Command & Launch/ST&E/Mission/SW	0.644			0.000			0.000			0.000
Total Procurement Support	4.812			0.000			0.000			0.000
Total Flyaway Cost	19.308	0 -		0.000	0 -		0.000	0 -		0.000
<u>Fleet Support</u>										
ILS/Support	0.000			0.000			0.000			0.000
Total Fleet Support	0.000			0.000			0.000			0.000
Weapons System Cost	19.308	0 -		0.000	0 -		0.000	0 -		0.000
LRIP-2 Acceleration										
Net P-1 Cost	19.308			0.000			0.000			0.000
Modifications										
Initial Spares	0.000			0.000			0.000			0.000
Total Program Cost	19.308	0 -		0.000	0 -		0.000	0 -		0.000

Note:

TY\$									Date: February 2004		
Missile Nomenclature & Popular Name:		<u>Joint Standoff Weapons (JSOW)</u>									
P-40a		AGM-154C									
<b>UNCLASSIFIED</b>											
<u>Cost Elements</u>	<u>Prior Years</u>	<u>FY 2003</u>	<u>Quantity</u>	<u>Total Cost</u>	<u>FY 2004</u>	<u>Quantity</u>	<u>Total Cost</u>	<u>FY 2005</u>	<u>Quantity</u>	<u>Total Cost</u>	
		<u>Quantity</u>	<u>Unit Cost</u>		<u>Quantity</u>	<u>Unit Cost</u>		<u>Quantity</u>	<u>Unit Cost</u>		
<u>Missile Hardware</u>											
All Up Round (AUR)	0.000		0.634	26.635		0.352	34.101		0.341	59.010	
Contractor (Warranty/ECO/Data)	0.000			2.536			3.478			0.577	
Total Hardware	0.000	42	0.695	29.171	97	0.387	37.579	173	0.344	59.587	
<u>Procurement Support</u>											
LC GEU/Control											
JMPS INTEGRATION											
Gov't In-house/Prod Supt	0.000			0.250			1.201			0.250	
Special Tools and Test Equip	4.520			5.289			7.290			2.306	
Containers	0.000			0.477			0.402			1.421	
Telemetry	0.000			0.000			0.000			0.000	
Command & Launch/ST&E/Mission/SW	0.000			0.000			0.274			0.959	
Total Procurement Support	4.520			6.016			9.167			4.935	
Total Flyaway Cost	4.520	42	0.838	35.187	97	0.482	46.746	173	0.373	64.522	
<u>Fleet Support</u>											
ILS/Support	0.000			0.000			0.000			0.270	
Total Fleet Support	0.000			0.000			0.000			0.270	
Weapons System Cost	4.520	42	0.838	35.187	97	0.482	46.746	173	0.375	64.792	
LRIP-2 Acceleration											
Net P-1 Cost	4.520			35.187			46.746			64.792	
Modifications											
Initial Spares	0.000			0.000			0.000			0.000	
Total Program Cost	4.520	42	0.838	35.187	97	0.482	46.746	173	0.375	64.792	

CLASSIFICATION: <b>UNCLASSIFIED</b>											
BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)						Weapon System JSOW		DATE: February 2004			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy B.A. 2-Other Missiles					C. P-1 ITEM NOMENCLATURE Joint Standoff Weapon Systems					SUBHEAD J2JS	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT* COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE	
<u>Missile H/W</u>											
FY-03 AGM-154A	174	191	NAVAIR	Oct 02	SS/FFP	RAYTHEON SYSTEMS (Tucson, AZ)	Mar 03	Mar 04	YES	N/A	
FY-03 AGM-154A IFF (Iraqi Freedom Fund)	316	191	NAVAIR	Aug 02	SS/FFP	RAYTHEON SYSTEMS (Tucson, AZ)	Sep 03	Nov 04	YES	N/A	
FY-04 AGM-154A	231	190	NAVAIR	Oct 03	SS/FFP	RAYTHEON SYSTEMS (Tucson, AZ)	Dec 03	Mar 05	YES	N/A	
FY-05 AGM-154A	216	217	NAVAIR	Oct 04	SS/FFP	RAYTHEON SYSTEMS (Tucson, AZ)	Dec 04	Mar 06	YES	N/A	
FY-03 AGM-154C	42	634	NAVAIR	Oct 02	SS/FFP	RAYTHEON SYS/BAE (Tucson, AZ)	Jul 03	Sep 04	YES	N/A	
FY-04 AGM-154C	97	352	NAVAIR	Oct 03	SS/FFP	RAYTHEON SYS/BAE (Tucson, AZ)	Dec 03	Mar 05	YES	N/A	
FY-05 AGM-154C	173	341	NAVAIR	Oct 04	SS/FFP	RAYTHEON SYS/BAE (Tucson, AZ)	Dec 04	Mar 06	YES	N/A	
D. REMARKS: Reflects All-up-Round Hardware Unit Price (AUPP)											

DD Form 2446-1, JUL 87

FY 2005 BUDGET PRODUCTION SCHEDULE, P-21											DATE		February 2004														
APPROPRIATION/BUDGET ACTIVITY						Weapon System			P-1 ITEM NOMENCLATURE																		
Weapons Procurement, Navy/BA-2 OTHER Missiles						JSOW			JOINT STANDOFF WEAPONS (JSOW)																		
		Production Rate			Procurement Leadtimes																						
Item	Manufacturer's Name and Location		MSR	All variants 2-8-5*	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																
Joint Standoff Weapons (JSOW)	Raytheon Company		840	1200	1680		3	15	15	18	E																
	Tucson, AZ																										
<b>AGM-154A, AGM-154C</b>																											
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2003												B A L									
						CALENDAR YEAR 2003																					
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P										
JSOW Baseline/Raytheon Systems	2003	USN	174	0	174																				75		
JSOW Baseline/Raytheon Systems	2003	USN	316	0	316																					316	
JSOW Baseline/Raytheon Systems	2003	AF	22	0	22																					10	
JSOW-C/Raytheon Systems	2003	USN	42	0	42																					40	
JSOW Baseline/Raytheon Systems	2004	USN	231	0	231																					231	
	2004	AF	307	0	307																					307	
	2004	USN	97	0	97																					97	
JSOW Baseline/Raytheon Systems																											
JSOW-C/Raytheon Systems																											
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005												B A L									
						CALENDAR YEAR 2005																					
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P										
JSOW Baseline/Raytheon Systems	2003	USN	174	99	75	15	15	15	15	15																	0
JSOW Baseline/Raytheon Systems	2003	USN	316	0	316			37	47	58	60	19	19	19	19	2	12	12	12								0
JSOW Baseline/Raytheon Systems	2003	AF	22	12	10	2	2	2	2	2																	0
JSOW-C/Raytheon Systems	2003	USN	42	2	40	4	6	9	10	11																0	
JSOW Baseline/Raytheon Systems	2004	USN	231	0	231						18	18	18	18	19	20	20	20	20	20							0
JSOW Baseline/Raytheon Systems	2004	AF	307	0	307						25	25	25	25	25	26	26	26	26	26							0
JSOW-C/Raytheon Systems	2004	USN	97	0	97						7	7	7	8	8	8	8	8	9	9	9	9					0
Remarks: All variants, A, B, and C, have a common truck																											
* Assumes a 2-8-5 shift and contractor has achieved a stable running rate																											

FY 2005 BUDGET PRODUCTION SCHEDULE, P-21						DATE February 2004																								
APPROPRIATION/BUDGET ACTIVITY						Weapon System					P-1 ITEM NOMENCLATURE																			
Weapons Procurement, Navy/BA-2 OTHER Missiles						JSOW					JOINT STANDOFF WEAPONS (JSOW)																			
Item	Manufacturer's Name and Location	Production Rate			Procurement Leadtimes					Total	Unit of Measure																			
		MSR	All variants 2-8-5*	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT																						
Joint Standoff Weapons (JSOW)	Raytheon Company	840	1200	1680						3	15	15	18	E																
	Tucson, AZ																													
<b>AGM-154A, AGM-154C</b>																														
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2004												FISCAL YEAR 2005												B A L
						2003												2004												
						CALENDAR YEAR 2004												CALENDAR YEAR 2005												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
JSOW Baseline/Raytheon Systems	2005	USN	216	0	216															A										216
JSOW-C/Raytheon Systems	2005	USN	173	0	173															A										173
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2006												FISCAL YEAR 2007												B A L
						2005												2006												
						CALENDAR YEAR 2006												CALENDAR YEAR 2007												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
JSOW Baseline/Raytheon Systems	2005	USN	216	0	216							18	18	18	18	18	18	18	18	18	18	18								0
JSOW-C/Raytheon Systems	2005	USN	173	0	173							14	14	14	14	14	14	15	15	15	15	15								0
Remarks: All variants, A, B, and C, have a common truck																														
* Assumes a 2-8-5 shift and contractor has achieved a stable running rate																														

**CLASSIFICATION:**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>										<b>DATE:</b> <b>February 2004</b>	
<b>P-40</b>											
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>Weapons Procurement, Navy/BA2-Other Missiles</b>				<b>P-1 ITEM NOMENCLATURE</b> <b>SLAM-ER (J2SL) (PEO-W) (BLI: 223100)</b>							
Program Element for Code B Items: <b>N/A</b>				Other Related Program Elements <b>0604603N</b>							
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	301		120	77						0	498
COST (\$M)	\$220.6		\$82.2	\$50.8						\$0.0	\$353.6
<p>MISSION AND DESCRIPTION: The SLAM-Expanded Response (SLAM-ER) missile modification program provides funds for Engineering Change Proposals (ECPs) and other improvements to the SLAM weapons components which are already in the inventory and require retrofit activity to produce the SLAM-ER missile. Additionally, exercise sections are procured to meet fleet training requirements. The SLAM-ER missile with the addition of Automatic Target Acquisition (ATA), Tactical Automated Mission Planning (TAMPS), Real Time Target Capability, Increased Range and Flight Envelope and Increased Warhead Penetration and Video Imagery Datalink obsolescence update has matured into a permanent Standoff Outside Area Defense (SOAD) weapon.</p>											
<p>FY03 matches actual program value as of 30 September 2003.</p>											

**CLASSIFICATION:**

**UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION** February 2004

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

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

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
<b>FINANCIAL PLAN (IN MILLIONS)</b>																				
RDT&E		21.7		10.6		9.6														
<b>PROCUREMENT</b>																				
INSTALLATION KITS (1)(2)(3)	301	162.2	120	59.8	77	40.1													498.0	262.1
INSTALLATION KITS NRE				11.1		0.5														11.6
Component "A"																				
Component "B"																				
Component "C"																				
<b>EQUIPMENT NRE</b>																				
EQUIPMENT		6.0		0.0																6.0
Equipment "A"																				
Equipment "B"																				
ECP 1 Grp "A"																				
ECP 2 Grp "B"																				
ECP 3 Grp "A"																				
ECP 4 Grp "B"																				
<b>SOFTWARE MAINTENANCE</b>																				
ENGINEERING CHANGE ORDERS		11.4		0.2		0.2														11.8
DATA		2.4		0.0																2.4
TRAINING EQUIPMENT (Exercise Sections)	34	4.0	25	3.3	9	1.3														8.6
SUPPORT EQUIPMENT (Containers)	365	3.3	120	1.5	77	1.1														5.9
PCM TRAYS		0.6		0.8		0.3														1.7
OTHER (Field Activity Support) (4)		26.0		5.5		7.3														38.8
Other																				
Other																				
Other																				
INTERIM CONTRACTOR SUPPORT		0.4		0.0																0.4
<b>INSTALL COST</b>																				
SAASM INTEGRATION/INSTALL		0.0		0.0																
ATA RETROFIT	125	4.3	0	0.0																4.3
TOTAL PROCUREMENT	301	220.6	120	82.2	77	50.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0				353.6

- Note(s):
- (1) Kit consists of GFE SLAM AUR, and GFE components.
  - (2) Installations cost are included in the installation kits line since kit cost and installation are non-severable
  - (3) Estimates cost for installation kits/installation of hardware is effected by concurrent FMS production (HARPOON). FMS assumptions include 100 units.
  - (4) Warhead cost included OTHER (Field Activity Support)

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

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

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: \_\_\_\_\_

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 2002: Feb-02

FY 2003: Dec-02

FY 2004: Dec-03

DELIVERY DATE: FY 2002: Jan-03

FY 2003: Oct-03

FY 2004: Dec-04

(\$ in Millions)

Cost:	Prior Years		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		To Complete		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																					
FY 2003 EQUIPMENT																					
FY 2004 EQUIPMENT																					
FY 2005 EQUIPMENT																					
FY 2006 EQUIPMENT																					
FY 2007 EQUIPMENT																					
FY 2008 EQUIPMENT																					
FY 2009 EQUIPMENT																					
TO COMPLETE																					

INSTALLATION SCHEDULE:

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				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						
In	301	120	0	0	0	77	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		498
Out	301	18	7	8	8	7	30	30	12	20	19	19	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		498

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

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											February 2004	
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE					
<b>Weapons Procurement, Navy/ BA-2</b>							<b>STANDARD MISSILE (SM-2 MR/ER) A2FE BLI:223400</b>					
Program Element for Code B Items:							Other Related Program Elements					
	FY2002 and Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	10,652	A		93	75	75	75	75	94	110	438	11,687
COST (\$M)	\$7,342.6	A		151.4	147.2	150.1	152.5	155.5	178.5	201.7	822.8	9302.3
Initial Spares (\$M)	\$201.6	A		\$11.4	\$10.1	\$21.7	\$22.2	\$22.6	\$22.9	\$23.1	\$73.8	409.4
<p>(U) <u>PROGRAM OVERVIEW:</u></p> <p>(U) 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 guided missile cruisers and destroyers. The SM-2 Block IIIB, SM-2 Block IV and earlier variants are currently deployed.</p> <p>(U) Continually being upgraded to preserve battle group effectiveness against evolving cruise missile and Tactical Ballistic Missile (TBM) threats, SM-2 has 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, evolved from the Block IIIA baseline missile to provide greater kinematic capability and dramatic increases in performance. The SM-2 Block IVA was 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. The SM-2 Block IVA program was cancelled beginning in FY02.</p> <p>(U) Beginning in FY02 Vertical Launching System (VLS) canister procurement funding was transferred from Other Missile Support (BLI 229000) into the STANDARD Missile program (BLI 223400). The 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.</p> <p>NOTE: No ERF,D funding.</p>												

WEAPONS SYSTEM COST ANALYSIS						Weapon System						DATE:				
P-5												February 2004				
APPROPRIATION/BUDGET ACTIVITY						ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD								
Weapons Procurement, Navy/BA-2								STANDARD MISSILE (SM-2 MR/ER)/A2FE						BLI: 223400		
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			2002 & Prior Years			FY 2003			FY 2004			FY 2005				
			Total Qty	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
FE001	<b>Missile Hardware</b> GC&A/All Up Round Missile AEGIS BLK IIIB AEGIS BLK IV AEGIS BLK IVA						93*	708.74	65,913	75****	862.25	64,669	75*****	1022.63	76,697	
			465													
			160													
			22				-	-	-	-	-	-	-	-	-	
FE009	MK104 DTRM Mod 2						93	94.26	8,766	-	-	-	-	-	-	
FE009	MK104 DTRM Mod 3						-	-	-	-	-	-	-	-	-	
FE003	MK 54 S&A Device						93**	9.97	927	-	-	-	-	-	-	
FE005	MK 45 TDD Mod 9/Mod 14						93***	111.01	10,324	75	110.50	8,288	-	-	-	
FE006	MK 125 Warhead						93	19.96	1,856	-	-	-	-	-	-	
FE007	TYPE I CANISTERS - SM-2 BLK IIIB (MK-13)						93	36.55	3,399	75	37.13	2,785	75	37.76	2,832	
	<b>Total Missile Hardware</b>								<b>91,185</b>			<b>75,742</b>			<b>79,529</b>	
	<b>Procurement Support</b>															
FE830	Contract Engineering								23,425			16,381			15,962	
FE830	Government In-House Engineering								5,089			4,808			4,523	
FE840	Quality Assurance								2,204			2,332			2,793	
FE954	Documentation								323			2,356			2,310	
FE955	Production Proof								5,305			5,110			5,910	
FE860	Eval Svc & Mat'l								7,346			9,994			9,967	
FE957	Containers								386			381			376	
FE950	Tools and Test Equipment								5,878			10,136			9,667	
FE850	Comp Improv								1,844			4,191			4,203	
	<b>Total Procurement Support</b>								<b>51,800</b>			<b>55,689</b>			<b>55,711</b>	
	<b>Fleet Support</b>															
FE970	Installation and Checkout Equip								1,973			5,465			5,922	
FE971	Special Handling Equip								0			436			467	
FE972	Training Material Exp and Non Exp								5,125			7,672			6,501	
FE973	Fleet Documentation								569			1,069			1,050	
FE980	ILS								763			1,132			918	
	<b>Total Fleet Support</b>								<b>8,430</b>			<b>15,774</b>			<b>14,858</b>	
	<b>Modifications</b>								54,197			50,458			51,790	
	<b>Initial Spares</b>								11,366			10,136			21,747	
* FY03 SM-2 Blk IIIB GC&A unit price includes Inertial Instrumentation Unit/Electronic Assembly (IIU/EA) Value Engineering Change Proposal (VECP) incorporation, radome life-of-type buy, AE switches and dorsal harnesses.																
** FY03 MK 54 S&A unit price includes MK 71 Mod 1 electric detonators.																
*** FY03 MK 45 TDD unit price includes Mod 9 Design Renewal VECP incorporation.																
**** FY04 SM-2 Blk IIIB missile unit price includes MK 104, MK 54, MK 125 components previously provided to Raytheon as Government Furnished Equipment (GFE), IIU/EA VECP incorporation and GFE credits.																
***** FY05 SM-2 Blk IIIB missile unit price includes new MK 45 TDD Mod 14 produced by Raytheon, and MK 104, MK 54, MK 125 components previously provided to Raytheon as GFE.																
NOTE: The total line does not include Modifications or Initial Spares.																
			7,342,551						151,415			147,205			150,098	

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE					
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD			
Weapons Procurement, Navy/BA-2					STANDARD MISSILE				BLI: 223400		A2FE	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE		
<b>UNIQUE SM-2 MR/ER HARDWARE</b>												
<u>FE001 GC&amp;A/ALL UP ROUND MISSILE</u>												
FY03 BLK IIIB AEGIS GC&A	93	708.74*	NAVSEA		SS/FFP/IF	RAYCO - Tucson, AZ	12/02	01/05	YES			
FY04 BLK IIIB AEGIS AUR	75	862.25**	NAVSEA		SS/FFP/IF	RAYCO - Tucson, AZ	12/03	03/06	YES			
FY05 BLK IIIB AEGIS AUR	75	1022.63***	NAVSEA		SS/FFP/IF	RAYCO - Tucson, AZ	01/05	01/07	YES			
<u>FE009 DTRM MK104</u>												
FY03 MOD 2	93	94.26	NAVSEA		SS/FFP	RAYCO - Tucson, AZ	08/03	10/04	YES			
<u>FE007 TYPE I CANISTERS (MK-13)</u>												
FY03	93	36.55	NAVSEA		SS/FP	UDLP - Minneapolis, MN	07/03	01/04	YES			
FY04	75	37.13	NAVSEA		FP/Option	UDLP - Minneapolis, MN	01/04	01/05	YES			
FY05	75	37.76	NAVSEA		FP/Option	UDLP - Minneapolis, MN	01/05	01/06	YES			
D. REMARKS												
* FY03 SM-2 Blk IIIB GC&A unit price includes Inertial Instrumentation Unit/Electronic Assembly (IIU/EA) Value Engineering Change Proposal (VECP) incorporation, radome life-of-type buy, AE switches and dorsal harnesses.												
** FY04 SM-2 Blk IIIB missile unit price includes MK 104, MK 54, MK 125 components previously provided to Raytheon as Government Furnished Equipment (GFE), IIU/EA VECP incorporation and GFE credits.												
*** FY05 SM-2 Blk IIIB missile unit price includes new MK 45 TDD Mod 14 produced by Raytheon, and MK 104, MK 54, MK 125 components previously provided to Raytheon as GFE.												

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2</b>					C. P-1 ITEM NOMENCLATURE <b>STANDARD MISSILE</b>					SUBHEAD <b>February 2004</b>	
					<b>BLI: 223400</b>					<b>A2FE</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE	
<b>COMMON HARDWARE</b>											
<u>FE003 SAFETY &amp; ARMING DEVICE</u>											
FY03 MK54	93	9.97*	NAVSEA		SS/FFP	KAMAN - Middletown, CT	05/03	10/04	YES		
<u>FE005 ORDNANCE MK45 TDD</u>											
FY03 MOD 9	93	111.01**	NAVSEA		MYP/SS/FFP	GD - Scottsdale, AZ	12/02	10/04	YES		
FY04 MOD 9	75	110.50	NAVSEA		MYP/SS/FFP	GD - Scottsdale, AZ	11/03	10/05	YES		
<u>FE006 WARHEAD MK125</u>											
FY03 MK 125	93	19.96	NAVSEA		SS/FFP	AlliantTech - Magna, UT	08/03	10/04	YES		
D. REMARKS											
* FY03 MK 54 S&A unit price includes MK 71 Mod 1 electric detonators.											
** FY03 MK 45 TDD unit price includes Mod 9 Design Renewal VECF incorporation.											

**FY 2004/05 BUDGET PRODUCTION SCHEDULE, P-21** DATE **February 2004**

APPROPRIATION/BUDGET ACTIVITY **WEAPONS PROCUREMENT, NAVY/BA-2** Weapon System P-1 ITEM NOMENCLATURE **Standard Missile/2234**

Item	Manufacturer's Name and Location	Production Rate			Procurement Leadtimes				Total	Unit of Measure
		MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT		
SM-2 Round Assembly *	Raytheon, Tucson, AZ	156	175	500	-	3	24	24	27	EA
MK 104 *	ARC, Camden, AR	156	TBD	TBD	-	5	19	19	24	EA
MK 54 *	Kaman, Middletown, CT	160	TBD	TBD	-	5	19	19	24	EA
MK 45 *	GD, Scottsdale, AZ	120	TBD	TBD	-	5	19	19	24	EA
MK 125 *	AlliantTech, Magna, UT	96	TBD	TBD	-	6	18	18	24	EA
TYPE I & TYPE II Canisters**	UDLP, Minneapolis, MN	120	330	480	3	3	18	18	21	EA

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2003												FISCAL YEAR 2004												B A L										
						CY 2002			CALENDAR YEAR 2003									CALENDAR YEAR 2004																						
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P											
						RAYCO	1998		88	68	20							3	8	0	3																	6		
RAYCO (FMS)	1998		15	15	0																																			
RAYCO	1999		114	70	44	1			2	6								1												2	8	8	8	8						
RAYCO(FMS)	1999		16	16	0																																			
RAYCO ***	2000		75	1	74	9	8	0	0	0	0	0	0	1	14	19	23																							
RAYCO (FMS)	2000		89	44	45	4	8	0	0	0	2	0	0	5	9	0	0	6			2						9													
RAYCO ***	2001		75	0	75										3	0	1	0	6	6	22	37																		
RAYCO (FMS)	2001		48	0	48													4	6	19	19																			
RAYCO	2002		96	0	96																			5	16		9	9	9	9	9	9	9	9	9	9	21			
RAYCO(FMS)	2002		64	0	64																						20	6	6	6	6	6	6	6	6	14				

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005												FISCAL YEAR 2006												B A L									
						CY 2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006																					
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P										
						RAYCO	2002		96	75	21	9	7	5																									
RAYCO(FMS)	2002		64	50	14	6	5	3																															
RAYCO	2003		93	0	93				8	8	8	8	8	8	8	8	8	8	7	6																			
RAYCO(FMS)	2003		58	0	58	6	5	3	0	0	3	4	5	8	8	2	0	6	4	4																			
RAYCO	2004		75	0	75																						19						18			18	20		
RAYCO(FMS)	2004		209	0	209																						50						54			55	50		
RAYCO	2005		75	0	75																																	75	
RAYCO(FMS)	2005		30	0	30																																	30	
RAYCO																																							
RAYCO(FMS)																																							

Remarks: \* These components are also in the STANDARD Missile Modifications budget (BLI 235600). The production rates apply to both STANDARD Missile BLI 223400 and STANDARD Missile Modifications BLI 235600 components.  
 \*\* Canister Minimum Sustaining Rate is met with In-House All Up Round (AURs) and Direct Commercial Sale (DCS) quantities.  
 \*\*\* Deliveries do not include SM-2 Block IVA missiles due to program cancellation.



CLASSIFICATION:

**UNCLASSIFIED**

Exhibit P-20, Requirements Study		APPROPRIATION/BUDGET ACTIVITY WPN/BA-2 OTHER MISSILES					DATE: <b>February 2004</b>	
P-1 ITEM NOMENCLATURE <b>STANDARD Missile SM-2, MR, AEGIS VLS, BLOCK IIIB</b>		Admin Leadtime (after Oct1): 3 MONTHS			Prod Leadtime : 24 MONTHS			
	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Buy Summary	96	93	75	75	75	75	94	110
Unit Cost (\$M) *	0.800	0.980	1.010	1.060	1.082	1.102	1.101	1.107
Total Cost (\$M)	\$76.8	\$91.2	\$75.7	\$79.5	\$81.1	\$82.6	\$103.5	\$121.8
<b>Asset Dynamics</b>								
Beginning Asset Position	344	543	708	908	1076	1222	1373	1521
Deliveries from all prior year funding	96	85	140	21				
Deliveries from FY 2003 funding				72	21			
Deliveries from FY 2004 funding					55	20		
Deliveries from FY 2005 funding						56	19	
Deliveries from subsequent years' funding							56	75
Other Gains	108	85	70	83	78	80	79	79
Combat Losses/Usage								
Training Losses/Usage	-4	-5	-10	-8	-8	-5	-6	-7
Test Losses/Usage								
Other Losses/Usage	-1							
Disposals/Retirements/Attritions/etc.								
<b>End of Year Asset Position</b>	543	708	908	1076	1222	1373	1521	1668
Inventory Objective or Current Authorized Allowance	3219	3907	3989	4110	4276	4319	3530	3515
Inventory Objective FY04 FDP	Actual Training Expenditures	Other than Training Usage	Disposals (Vehicles/Other)	Vehicles Eligible for FY 2001 Replacement:	Aircraft: TOAI:			
Assets Rqd For Combat	FY 2004 thru Dec 03 :	FY 2004 thru Dec 03 :	FY 2004 thru Dec 03 :	Vehicles Eligible for FY 2003 Replacement:	PAA:			
Loads: 1620	1	0	0	Vehicle Augment:	TAI			
WRM Rqmt: 2648	FY 2003: 5	FY 2003: 0	FY 2003: 0		Attrition Res:			
Pipeline: 0	FY 2002: 4	FY 2002: 0	FY 2002: 0		BAI			
Other: 8	FY 2001: 8	FY 2001: 0	FY 2001: 0		Inactive Inv:			
<b>TOTAL:</b> 4276	FY 2000: 3	FY 2000: 0	FY 2000: 0	FY 2000: 0	Storage:			
Remarks:								
* FY02 SM-2 Blk IIIB unit price includes Plate 1 Government Furnished Equipment (GFE) and life-of-type buys for radomes and integrated circuits. FY03 SM-2 Blk IIIB unit price includes Inertial Instrumentation Unit/Electronic Assembly (IIU/EA) VECP incorporation, radome life-of-type buy, AE switches and dorsal harnesses. The FY04 SM-2 Blk IIIB unit price includes IIU/EA VECP incorporation and GFE credits. The FY05 SM-2 Blk IIIB unit price includes new TDD Mod 14 produced by Raytheon.								

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION:

**UNCLASSIFIED**

Exhibit P-20, Requirements Study		APPROPRIATION/BUDGET ACTIVITY WPN/BA-2 OTHER MISSILES					DATE: February 2004	
P-1 ITEM NOMENCLATURE STANDARD Missile, SM-2, MR, AEGIS VLS, BLOCK IV		Admin Leadtime (after Oct1): 3 MONTHS			Prod Leadtime : 24 MONTHS			
	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Buy Summary	0	0	0	0	0	0	0	0
Unit Cost (\$K)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Cost (\$K)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Asset Dynamics</b>								
Beginning Asset Position	56	56	77	113	107	101	95	89
Deliveries from all prior year funding	2	23	40					
Deliveries from FY 2003 funding								
Deliveries from FY 2004 funding								
Deliveries from FY 2005 funding								
Deliveries from subsequent years' funding								
Other Gains								
Combat Losses/Usage								
Training Losses/Usage	-1	-2	-4	-6	-6	-6	-6	-6
Test Losses/Usage								
Other Losses/Usage	-1							
Disposals/Retirements/Attritions/etc.								
<b>End of Year Asset Position</b>	56	77	113	107	101	95	89	83
Inventory Objective or Current Authorized Allowance *								
Inventory Objective FY04 FDP	Actual Training Expenditures	Other than Training Usage	Disposals (Vehicles/Other)	Vehicles Eligible for FY 2001 Replacement:	Aircraft: TOAI:			
Assets Rqd For Combat Loads:	FY 2004 thru Dec 03: 0	FY 2004 thru Dec 03: 0	FY 2004 thru Dec 03: 0	Vehicles Eligible for FY 2003 Replacement:	PAA: TAI			
WRM Rqmt:	FY 2003: 2	FY 2003: 0	FY 2003: 0	Vehicle Augment:	Attrition Res:			
Pipeline:	FY 2002: 1	FY 2002: 0	FY 2002: 0		BAI			
Other:	FY 2001: 3	FY 2001: 0	FY 2001: 0		Inactive Inv:			
TOTAL:	FY 2000: 2	FY 2000: 0	FY 2000: 0		Storage:			
Remarks:								
* No BLK IV Inventory Objective (IO) was established. A decision was made to cease production of the BLK IV after the LRIP procurement of 160 units due to the development of the BLK IVA follow-on. Block IVA was cancelled December 2001.								

<b>BUDGET ITEM JUSTIFICATION SHEET</b>										<b>DATE:</b>	
<b>P-40</b>										<b>FEBRUARY 2004</b>	
APPROPRIATION/BUDGET ACTIVITY				P-1 ITEM NOMENCLATURE							
<b>Weapons Procurement, Navy</b>				<b>ROLLING AIRFRAME MISSILE (RAM)      224200</b>							
<b>BA-2: OTHER MISSILES</b>											
Program Element for Code B Items: 0604756N				Other Related Program Elements							
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY08	FY09	To Complete	Total Program
QUANTITY	325	B	106	90	90	90	90	90	156	1,034	2071
COST (\$M)	180.1		59.2	48.0	47.4	135.9	70.3	99.2	102.2	555.7	1298.0
Initial Spares (\$M)											
Vendor Direct Spares (\$M)											
<p>ITEM DESCRIPTION/JUSTIFICATION:</p> <p>Rolling Airframe Missile (RAM) is a high fire-power, low cost, lightweight ship self-defense system to engage anti-ship missiles. Block 1 adds the capability of Infrared all-the-way guidance while maintaining the original dual-mode passive Radio Frequency/Infrared (RF/IR) guidance (Block 0). The RAM missile is fired from a RAM Guided Missile Launching System (MK-49), which holds 21 RAM rounds. Approval for full rate Block 1 production, Milestone III was granted on 20 January 2000.</p> <p style="margin-left: 40px;">FY03 funds will procure 106 Block 1 Missiles and 50 Block 1 ORDALTs.                      FY04 funds will procure 90 Block 1 missiles and 5 Block 1 ORDALTs.                      FY05 funds will procure 90 Block 1 Missiles.</p> <p>COOPERATIVE AGREEMENTS:</p> <p>RAM is a NATO cooperative project with the Federal Republic of Germany. The RAM Production MOU, approved and signed by the U.S. 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 U.S. (General Dynamics/Air Defense Systems Division) and German (RAM System GmbH) sources in 1989. As a result of the reduced U.S. missile quantities and a desire to maintain production capabilities in both countries, an arrangement between the U.S. 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 U.S. prime contractor. In January 1998, Raytheon acquired Hughes Missile Systems Co., making Raytheon the U.S. prime contractor. The U.S. and Federal Republic of Germany signed a new Block 1 Production MOA on 18 December 2001 to cooperatively produce Block 1 missiles, launchers and ORDALTs.</p>											

**WEAPONS PROCUREMENT, NAVY  
 FY 2004/05 DEPARTMENT OF THE NAVY BUDGET  
 MISSILE COST ANALYSIS  
 EXHIBIT P-5  
 (Dollars in Millions)**

APPROPRIATION/BUDGET ACTIVITY: WEAPONS PROCUREMENT, NAVY BA-2: OTHER MISSILES		P-1 ITEM NOMENCLATURE/SUBHEAD ROLLING AIRFRAME MISSILE (RAM) BLI - 224200 SUBHEAD: A2EF							DATE: <b>FEBRUARY 2004</b>		
COST CODES	ELEMENT OF COST	FY 2002 AND PRIOR	FY 2003			FY 2004			FY 2005		
			Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
	<u>Missile Hardware</u>										
EF001	BLOCK 1 & G&CA	116,345	106	322.49	34,184	90	344.70	31,023	90	347.20	31,248
EF001	GMRP ORDALTS	15,587	50	186.76	9,338	5	211.20	1,056			
EF850	COMPONENT IMPR	8,579			4,062			2,535			1,747
EF002	PROPULSION	3,021	106	11.27	1,195	90	11.53	1,038	90	11.80	1,062
EF005	ORDNANCE PACK	8,861	106	27.92	2,960	90	28.40	2,556	90	28.90	2,601
EF006	WARHEAD	651	76	7.38	561	60	7.75	465	65	7.92	515
EF004	SAFE & ARM DEV	239	60	1.97	118	60	2.80	168	65	3.00	195
EF950	TOOL & TEST EQUIP	1,205									
EF010	TELEMETER	1,761	30	36.23	1,087	30	36.70	1,101	25	37.54	939
	<b>Total Hardware</b>	<b>156,249</b>			<b>53,504</b>			<b>39,942</b>			<b>38,307</b>
	<u>Procurement Support</u>										
EF830	CONTRACTOR EN	9,211			197			1,380			1,403
EF830	GOVT INHOUSE EN	10,144			1,876			2,490			4,016
EF860	PRODUCT ACCEPT	1,291			282			233			236
	<b>Total Procurement Support</b>	<b>20,646</b>			<b>2,355</b>			<b>4,103</b>			<b>5,655</b>
	MISSILE Flyaway Cost		106	420.98	44,624	90	477.65	42,989	90	488.47	43,962
	GMRP ORDALT Flyaway Cost		50	224.70	11,235	5	211.20	1,056			
	<u>Fleet Support</u>										
EF974	ILS							504			520
EF957	CONTAINER	488				150	3.60	540			
EF007	CANISTER	2,683	106	31.17	3,304	90	31.86	2,867	90	32.56	2,930
	<b>Total Fleet Support</b>	<b>3,171</b>			<b>3,304</b>			<b>3,911</b>			<b>3,450</b>
	<b>Weapon System Cost</b>	<b>180,066</b>			<b>59,163</b>			<b>47,956</b>			<b>47,412</b>
	Modifications Initial Spares Vendor Direct Spares										
	<b>Total Program Cost</b>	<b>180,066</b>			<b>59,163</b>			<b>47,956</b>			<b>47,412</b>

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE <b>FEBRUARY 2004</b>		
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA2: OTHER MISSILES</b>					C. P-1 ITEM NOMENCLATURE <b>ROLLING AIRFRAME MISSILE (RAM)</b>				SUBHEAD <b>A2EF</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
EF001 GUIDANCE & CONTROL ASSEMBLY FY 2003 BLOCK 1 MISSILE	106	322.5	NAVSEA	5/02	SS/FP	RAYTHEON, TUCSON,AZ	12/02	05/05	YES	
FY 2004 BLOCK 1 MISSILE	90	344.7	NAVSEA	5/03	SS/FP	RAYTHEON, TUCSON,AZ	12/03	11/05	YES	
FY 2005 BLOCK 1 MISSILE	90	347.2	NAVSEA	5/04	SS/FP	RAYTHEON, TUCSON,AZ	11/04	11/06	YES	
EF001 GMRP ORDALTS FY 2003	50	186.8	NAVSEA	5/02	SS/FP	RAYTHEON, TUCSON,AZ	12/02	05/05	YES	
FY 2004	5	211.2	NAVSEA	5/03	SS/FP	RAYTHEON, TUCSON,AZ	12/03	11/05	YES	
EF02 PROPULSION ROCKET MOTOR MK112/1 ARMING & FIRING DEVICE MK298/1 FY 2003	106	11.3	NAVSEA	5/02	C/FP	ATLANTIC RESEARCH	11/02	07/04	YES	
FY 2004	90	11.5	NAVSEA	5/03	C/FP	ATLANTIC RESEARCH	11/03	07/05	YES	
FY 2005	90	11.8	NAVSEA	5/04	C/FP	COMPETITIVE	11/04	07/06	YES	
EF005 ORDNANCE PACKAGE TARGET DETECT MK20 FY 2003	106	27.9	NAVSEA	5/02	SS/FP	RAYTHEON, TUCSON,AZ	12/02	05/05	YES	
FY 2004	90	28.4	NAVSEA	5/03	SS/FP	RAYTHEON, TUCSON,AZ	12/03	11/05	YES	
FY 2005	90	28.9	NAVSEA	5/04	SS/FP	RAYTHEON, TUCSON,AZ	11/04	11/06	YES	
D. REMARKS										

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE <b>FEBRUARY 2004</b>		
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA2: OTHER MISSILES</b>					C. P-1 ITEM NOMENCLATURE <b>ROLLING AIRFRAME MISSILE (RAM)</b>				SUBHEAD <b>A2EF</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
EF006 WARHEAD WDU 17/8										
FY 2003	76	7.4	NAVAIR	5/02	C/FP	ENSIGN BICKFORD	3/03	07/04	YES	
FY 2004	60	7.8	NAVAIR	5/03	C/FP	CHINA LAKE	2/04	09/05	YES	
FY 2005	65	7.9	NAVAIR	5/04	C/FP	COMPETITIVE	11/04	7/06	YES	
EF004 SAFE & ARMS MK 13/2										
FY 2003	60	2.0	NAVSEA	7/02	C/FP	CHINA LAKE	12/02	07/04	YES	
FY 2004	60	2.8	NAVAIR	7/03	C/FP	CHINA LAKE	11/03	07/05	YES	
FY 2005	65	3.0	NAVAIR	7/04	C/FP	COMPETITIVE	11/04	07/06	YES	
EF010 TELEMETER										
FY 2003	30	36.2	NAVSEA	5/02	SS/FP	CHINA LAKE	11/02	7/04	YES	
FY 2004	30	36.7	NAVSEA	5/03	SS/FP	RAYTHEON, TUCSON,AZ	02/04	11/05	YES	
FY 2005	25	37.5	NAVSEA	5/04	SS/FP	COMPETITIVE	11/05	7/06	YES	
EF957 CONTAINERS										
FY 2004	150	3.6	NAVSEA	5/03	C/FP	COMPETITIVE	02/04	11/04	YES	
EF007 CANISTER										
FY 2003	106	31.2	NAVSEA	5/02	SS/FP	RAYTHEON, TUCSON,AZ	12/02	05/05	YES	
FY 2004	90	31.9	NAVSEA	5/03	SS/FP	RAYTHEON, TUCSON,AZ	12/03	11/05	YES	
FY 2005	90	32.6	NAVSEA	5/04	SS/FP	RAYTHEON, TUCSON,AZ	11/04	11/06	YES	
D. REMARKS										



FY 2004/05 BUDGET PRODUCTION SCHEDULE, P-21											DATE <b>FEBRUARY 2004</b>																			
APPROPRIATION/BUDGET ACTIVITY: <b>WEAPONS PROCUREMENT, NAVY BA-2: OTHER MISSILES</b>						Weapon System					P-1 ITEM NOMENCLATURE <b>ROLLING AIRFRAME MISSILE (RAM)</b>																			
		Production Rate			Procurement Leadtimes																									
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																
5" Rolling Airframe Missile	Raytheon Company Tucson, AZ					90	20	480	0	3	24	24	24	Months																
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2006												B A L												
						2005						CALENDAR YEAR 2006							2006						CALENDAR YEAR 2007					
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
5" Rolling Airframe Missile/RC	03	N	106		30	15	15																			0				
5" Rolling Airframe Missile/RC	04	N	90		90		8	7	8	7	8	7	8	7	8	7										0				
5" Rolling Airframe Missile/RC	05	N	90		90												8	7	8	7	8	7	8	7	8	7				
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2008												B A L												
						2007			CALENDAR YEAR 2008						2008				CALENDAR YEAR 2009											
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
5" Rolling Airframe Missile/RC	05	N	90		7	7																				0				
Remarks:																														

CLASSIFICATION:

**FY 2005 PRESIDENT'S BUDGET SUBMISSION**

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET										DATE:	
P-40										February 2004	
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE						
<b>Weapons Procurement, Navy/BA-2; OTHER MISSILES</b>					<b>228000 AERIAL TARGETS (J2EM)</b>				<b>PE: 0204228N / 0204162N</b>		
Program Element for Code B Items:					Other Related Program Elements						
<b>0604258N, 0605130D, 0604366N</b>					<b>N/A</b>						
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QUANTITY											
COST (In Millions)	\$2,825.9	A	\$66.6	\$77.7	\$72.7	\$127.1	\$88.1	\$89.9	\$91.8	Cont.	Cont.

FY03 matches actual program value 30 September 2003

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 Year 2005, major efforts include the continued procurement of Sub-Sonic Aerial Targets (SSAT), Supersonic Sea Skimming Targets (SSST) and TDU-32 Tow Targets. Continued TA/AS procurements include target command/control equipment, scoring equipment, location and identification equipment, navigation equipment, electronic countermeasures equipment, active emitter augmentation equipment and target control systems. The aerial targets and necessary TA/AS equipment provided from this program supports Navy air-to-air and surface-to-air training and weapons systems DT/OT testing.

**P-1 SHOPPING LIST**

CLASSIFICATION:

**UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS										B. DATE	
P-5										February 2004	
APPROPRIATION/BUDGET ACTIVITY				P-1 ITEM NOMECLATURE/SUBHEAD							
WEAPONS PROCUREMENT, NAVY				228000 AERIAL TARGETS/J2EM							
BA-2 OTHER MISSILES											
COST CODE	ELEMENT OF COST	IDENT CODE	Prior Years Total Cost	FY 2003		FY 2004		FY 2005			
				QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST		
EM020	Anti-Air Warfare Target	A	\$175,470								
EM030	Subsonic Aerial Target	A	\$464,203		142	\$43,992	37	\$14,641	124	\$44,062	
EM200	OTHER TARGETS (2)	A	\$148,024			\$6,857		\$45,155		\$12,942	
EM300	TA/AS	A	\$220,705			\$15,756		\$17,922		\$15,682	
	VARIOUS		\$1,817,484			\$0		\$0		\$0	
<b>TOTAL</b>			<b>\$2,825,886</b>		<b>142</b>	<b>\$66,605</b>	<b>37</b>	<b>\$77,718</b>	<b>124</b>	<b>\$72,686</b>	
SPARES (1)											
	Anti-Air Warfare Target		\$0			\$0		\$0		\$0	
	Subsonic Aerial Target		\$455			\$0		\$0		\$0	
	OTHER TARGETS		\$703			\$0		\$0		\$193	
	TA/AS		\$1,320			\$390		\$833		\$672	
	VARIOUS		\$53,947			\$0		\$0		\$0	
<b>TOTAL SPARES</b>			<b>\$56,425</b>			<b>\$390</b>		<b>\$833</b>		<b>\$865</b>	
<b>TOTAL PROGRAM</b>			<b>\$2,882,311</b>		<b>142</b>	<b>\$66,995</b>	<b>37</b>	<b>\$78,551</b>	<b>124</b>	<b>\$73,551</b>	

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

(2) Quantities are not displayed here because multiple types of targets are included in the line. Target quantities are identified on the detailed P-5 for "Other Targets".

CLASSIFICATION:

**UNCLASSIFIED**

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

February 2004

February 2004

TARGET SYSTEM: <b>SUBSONIC AERIAL TARGET</b> MANUFACTURER: NORTHROP-GRUMMAN COST CODE: <b>EM030</b> FLYAWAY COST (\$000)	FISCAL YEAR 2003			FISCAL YEAR 2004			FISCAL YEAR 2005			TO COMPLETE COSTS	TOTAL COST
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST		
HARDWARE:											
TARGET	142	\$269	\$38,144	37	\$270	\$9,975	124	\$277	\$34,348	Cont.	Cont.
INSTALL/MISSION KITS			\$3,639			\$925			\$4,463	Cont.	Cont.
<b>TOTAL HARDWARE</b>	<b>142</b>	<b>\$294</b>	<b>\$41,783</b>	<b>37</b>	<b>\$295</b>	<b>\$10,900</b>	<b>124</b>	<b>\$313</b>	<b>\$38,811</b>	<b>Cont.</b>	<b>Cont.</b>
PROCUREMENT SUPPORT (RECURRING):											
GOVERNMENT IN-HOUSE			\$1,375			\$1,430			\$2,272	Cont.	Cont.
DOCUMENTATION			\$158			\$162			\$112	Cont.	Cont.
GOVERNMENT TEST			\$26			\$27			\$0	Cont.	Cont.
<b>TOTAL RECURRING</b>			<b>\$1,559</b>			<b>\$1,619</b>			<b>\$2,384</b>	<b>Cont.</b>	<b>Cont.</b>
PROCUREMENT SUPPORT (NONRECURRING):											
PRODUCT IMPROVEMENT			\$0			\$0			\$0	Cont.	Cont.
SPECIAL TOOLING AND TEST EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
<b>TOTAL NONRECURRING</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>	<b>Cont.</b>	<b>Cont.</b>
<b>TOTAL FLYAWAY</b>	<b>142</b>	<b>\$305</b>	<b>\$43,342</b>	<b>37</b>	<b>\$338</b>	<b>\$12,519</b>	<b>124</b>	<b>\$332</b>	<b>\$41,195</b>	Cont.	Cont.
GROUND EQUIPMENT/FLEET SUPPORT COST:											
GROUND EQUIPMENT			\$0			\$936			\$1,610	Cont.	Cont.
INSTALL & CHECKOUT			\$0			\$520			\$772	Cont.	Cont.
SPECIAL HANDLING EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
FLEET TEST EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
TRAINING DEVICES			\$35			\$36			\$0	Cont.	Cont.
DOCUMENTATION			\$0			\$0			\$0	Cont.	Cont.
ILS			\$615			\$630			\$485	Cont.	Cont.
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>			<b>\$650</b>			<b>\$2,122</b>			<b>\$2,867</b>	<b>Cont.</b>	<b>Cont.</b>
<b>WEAPONS SYSTEM COST</b>	<b>142</b>	<b>\$310</b>	<b>\$43,992</b>	<b>37</b>	<b>\$396</b>	<b>\$14,641</b>	<b>124</b>	<b>\$355</b>	<b>\$44,062</b>	<b>Cont.</b>	<b>Cont.</b>
TARGETS INITIAL SPARES			\$0			\$0			\$0	Cont.	Cont.
<b>TOTAL PROGRAM COST</b>	<b>142</b>	<b>\$310</b>	<b>\$43,992</b>	<b>37</b>	<b>\$396</b>	<b>\$14,641</b>	<b>124</b>	<b>\$355</b>	<b>\$44,062</b>	<b>Cont.</b>	<b>Cont.</b>

**P-1 SHOPPING LIST**

\* FY05 Unit Cost represent last year of BQM-74E production.

\*\* FY06 Unit Cost represents first year of BQM-74F production

CLASSIFICATION:

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

February 2004

February 2004

TARGET SYSTEM: <b>OTHER TARGETS</b> MANUFACTURER: <b>VARIOUS</b> COST CODE: <b>EM200</b> FLYAWAY COST (\$000)	FISCAL YEAR 2003			FISCAL YEAR 2004			FISCAL YEAR 2005			TO COMPLETE COSTS	TOTAL COST
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST		
<b>HARDWARE:</b>											
Supersonic Sea Skimming Target (SSST)	0	\$0	\$0	50	\$826	\$41,300	7	\$1,422	\$9,954	Cont.	Cont.
INSTALL/MISSION KITS	0	\$0	\$0	50	\$17	\$850	7	\$17	\$119		
FOREIGN NDI - SUPERSONIC	0		\$0			\$0			\$0	Cont.	Cont.
FOREIGN NDI - SUBSONIC	0		\$0			\$0			\$0	Cont.	Cont.
TOW TARGETS	500	\$3.14	\$1,568	500	\$3.20	\$1,601	500	\$3.27	\$1,635	Cont.	Cont.
SM-2 TARGET			\$0			\$0			\$0	\$0	\$2,000
MQM-8G(EER) VANDAL			\$0			\$0			\$0	\$0	\$67,370
<b>TOTAL HARDWARE</b>			<b>\$1,568</b>			<b>\$43,751</b>			<b>\$11,708</b>	<b>Cont.</b>	<b>Cont.</b>
<b>PROCUREMENT SUPPORT (RECURRING):</b>											
GOVERNMENT IN-HOUSE			\$1,101			\$1,361			\$1,189	Cont.	Cont.
DOCUMENTATION			\$0			\$0			\$0	Cont.	Cont.
GOVERNMENT TEST			\$42			\$43			\$45	Cont.	Cont.
<b>TOTAL RECURRING</b>			<b>\$1,143</b>			<b>\$1,404</b>			<b>\$1,234</b>	<b>Cont.</b>	<b>Cont.</b>
<b>PROCUREMENT SUPPORT (NONRECURRING):*</b>											
GOVERNMENT IN-HOUSE			\$425			\$0			\$0		
PRODUCT IMPROVEMENT			\$0			\$0			\$0	Cont.	Cont.
INSENSITIVE MUNITION HARDWARE			\$2,292			\$0			\$0		
CONTRACTOR ENGINEERING			\$1,223			\$0			\$0	Cont.	Cont.
SPECIAL TOOLING AND TEST EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
<b>TOTAL NONRECURRING</b>			<b>\$3,515</b>			<b>\$0</b>			<b>\$0</b>	<b>Cont.</b>	<b>Cont.</b>
<b>TOTAL FLYAWAY</b>	<b>0</b>	<b>\$0</b>	<b>\$6,226</b>	<b>0</b>	<b>\$0</b>	<b>\$45,155</b>	<b>0</b>	<b>\$0</b>	<b>\$12,942</b>	Cont.	Cont.
<b>GROUND EQUIPMENT/FLEET SUPPORT COST:</b>											
GROUND EQUIPMENT			\$631			\$0			\$0	Cont.	Cont.
INSTALL & CHECKOUT			\$0			\$0			\$0	Cont.	Cont.
SPECIAL HANDLING EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
FLEET TEST EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
TRAINING DEVICES			\$0			\$0			\$0	Cont.	Cont.
DOCUMENTATION			\$0			\$0			\$0	Cont.	Cont.
ILS			\$0			\$0			\$0	Cont.	Cont.
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>			<b>\$631</b>			<b>\$0</b>			<b>\$0</b>	<b>Cont.</b>	<b>Cont.</b>
<b>WEAPONS SYSTEM COST</b>			<b>\$6,857</b>			<b>\$45,155</b>			<b>\$12,942</b>	<b>Cont.</b>	<b>Cont.</b>
TARGETS INITIAL SPARES			\$0			\$0			\$193	Cont.	Cont.
<b>TOTAL PROGRAM COST</b>			<b>\$6,857</b>			<b>\$45,155</b>			<b>\$13,135</b>	<b>Cont.</b>	<b>Cont.</b>

\* FY 2003 includes non-recurring cost for Insensitive Munitions Test P-1 SHOPPING LIST

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

February 2004

February 2004

TARGET SYSTEM: <b>TA/AS</b> MANUFACTURER: <b>VARIOUS</b> COST CODE: <b>EM300</b> FLYAWAY COST (\$000)	FISCAL YEAR 2003			FISCAL YEAR 2004			FISCAL YEAR 2005			TO COMPLETE COSTS	TOTAL COST
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST		
<b>HARDWARE:</b>											
CMD/CONTROL EQUIPMENT			\$3,600			\$3,600			\$2,992	Cont.	Cont.
SCORING EQUIPMENT			\$450			\$1,990			\$881	Cont.	Cont.
LOCATION/ID EQUIPMENT			\$558			\$965			\$1,070	Cont.	Cont.
ECM/EMITTER EQUIPMENT			\$4,946			\$5,115			\$4,705	Cont.	Cont.
AUGMENTATION/NAVIGATION EQUIPMENT			\$674			\$773			\$604		
INSTALL/MISSION EQUIPMENT			\$582			\$598			\$605		
MOBILE SEA RANGE			\$0			\$0			\$0	Cont.	Cont.
<b>TOTAL HARDWARE</b>			<b>\$10,810</b>			<b>\$13,041</b>			<b>\$10,857</b>	<b>Cont.</b>	<b>Cont.</b>
<b>PROCUREMENT SUPPORT (RECURRING):</b>											
GOVERNMENT IN-HOUSE			\$3,800			\$3,719			\$3,647	Cont.	Cont.
DOCUMENTATION			\$100			\$100			\$100	Cont.	Cont.
GOVERNMENT TEST			\$60			\$61			\$62	Cont.	Cont.
<b>TOTAL RECURRING</b>			<b>\$3,960</b>			<b>\$3,880</b>			<b>\$3,809</b>	<b>Cont.</b>	<b>Cont.</b>
<b>PROCUREMENT SUPPORT (NONRECURRING):</b>											
PRODUCT IMPROVEMENT			\$0			\$0			\$0	Cont.	Cont.
SPECIAL TOOLING AND TEST EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
<b>TOTAL NONRECURRING</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>	<b>Cont.</b>	<b>Cont.</b>
<b>TOTAL FLYAWAY</b>			<b>\$14,770</b>			<b>\$16,921</b>			<b>\$14,666</b>	Cont.	Cont.
<b>GROUND EQUIPMENT/FLEET SUPPORT COST:</b>											
GROUND EQUIPMENT			\$174			\$177			\$180	Cont.	Cont.
INSTALL & CHECKOUT			\$0			\$0			\$0	Cont.	Cont.
SPECIAL HANDLING EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
FLEET TEST EQUIPMENT			\$0			\$0			\$0	Cont.	Cont.
TRAINING			\$200			\$200			\$200	Cont.	Cont.
DOCUMENTATION			\$0			\$0			\$0	Cont.	Cont.
ILS			\$612			\$624			\$636	Cont.	Cont.
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>			<b>\$986</b>			<b>\$1,001</b>			<b>\$1,016</b>	<b>Cont.</b>	<b>Cont.</b>
<b>WEAPONS SYSTEM COST</b>			<b>\$15,756</b>			<b>\$17,922</b>			<b>\$15,682</b>	<b>Cont.</b>	<b>Cont.</b>
TARGETS INITIAL SPARES			\$390			\$645			\$672	Cont.	Cont.
<b>TOTAL PROGRAM COST</b>			<b>\$16,146</b>			<b>\$18,567</b>			<b>\$16,354</b>	<b>Cont.</b>	<b>Cont.</b>

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE	
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2; Other Missiles</b>									February 2004	
C. P-1 ITEM NOMENCLATURE <b>228000 AERIAL TARGETS</b>									SUBHEAD <b>J2EM</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
Subsonic Aerial Target/FY-03	142	269	NAVAIR		C/Option	Northrop-Grumman, Rancho Bernardo, CA	NOV 02	FEB 04		
Subsonic Aerial Target/FY-04	37	270	NAVAIR		C/Option	Northrop-Grumman, Rancho Bernardo, CA	JAN 04	FEB 05		
Subsonic Aerial Target/FY-05	124	277	NAVAIR		SS/FFP	Northrop-Grumman, Rancho Bernardo, CA	FEB 05	FEB 06		
Supersonic Sea Skimming Target SSST/FY04	50	826	NAVAIR		SS/FFP	Orbital Sciences, Chandler, AZ	AUG 04	SEP 05		
SSST/FY05	7	1,422	NAVAIR		SS/FFP	Orbital Sciences, Chandler, AZ	JAN 05	SEP 06		
D. REMARKS										

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FY 2003 BUDGET PRODUCTION SCHEDULE, P-21											DATE		February 2004													
APPROPRIATION/BUDGET ACTIVITY						Weapon System			P-1 ITEM NOMENCLATURE																	
Weapons Procurement, Navy/BA-2 - OTHER MISSILES									AERIAL TARGETS																	
		Production Rate				Procurement Leadtimes																				
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure												
Subsonic Aerial Target	Northrop-Grumman, Rancho Bernardo, CA					7-8	20	40-45		4	12		16	E												
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2002												B A L								
						2001						CALENDAR YEAR 2002							CALENDAR YEAR 2003							
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y
Subsonic Aerial Tgt./NORTHROP-GRU	03	N	142	0	142																					142
Subsonic Aerial Tgt./NORTHROP-GRU	03	RIK	1	0	1																					1
Subsonic Aerial Tgt./NORTHROP-GRU	04	N	37	0	37																					37
Subsonic Aerial Tgt./NORTHROP-GRU	05	N	124	0	124																					124
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2004												B A L								
						2003			CALENDAR YEAR 2004						CALENDAR YEAR 2005											
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y
Subsonic Aerial Tgt./NORTHROP-GRU	03	N	142	0	142																					0
Subsonic Aerial Tgt./NORTHROP-GRU	03	RIK	1	0	1																					0
Subsonic Aerial Tgt./NORTHROP-GRU	04	N	37	0	37																					12
Subsonic Aerial Tgt./NORTHROP-GRU	05	N	124	0	124																					124
Remarks:																										

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FY 2003 BUDGET PRODUCTION SCHEDULE, P-21							DATE February 2004																							
APPROPRIATION/BUDGET ACTIVITY						Weapon System							P-1 ITEM NOMENCLATURE																	
Weapons Procurement, Navy/BA-2 OTHER MISSILES													AERIAL TARGETS																	
Item	Manufacturer's Name and Location		Production Rate			Procurement Leadtimes							Total	Unit of Measure																
			MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT																					
Subsonic Aerial Target	Northrop-Grumman, Rancho Bernardo, CA		7-8	20	40-45					4	12		16	E																
ITEM / MANUFACTURER						FISCAL YEAR 2006							FISCAL YEAR 2007							BAL										
						2005			CALENDAR YEAR 2006							CALENDAR YEAR 2007														
	F Y	S V C	Q T Y	D E L	B A L	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
Subsonic Aerial Tgt./NORTHROP-GRU	04	N	37	25	12	3	3	3	3																					0
Subsonic Aerial Tgt./NORTHROP-GRU	05	N	124	0	124				10	10	10	10	10	10	10	10	10	11	11	11	11									0
ITEM / MANUFACTURER						FISCAL YEAR 2008							FISCAL YEAR 2009							BAL										
						2007			CALENDAR YEAR 2006							CALENDAR YEAR 2009														
	F Y	S V C	Q T Y	D E L	B A L	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
Remarks:																														

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<b>BUDGET ITEM JUSTIFICATION SHEET</b>											<b>DATE:</b>	
<b>P-40</b>											<b>February 2004</b>	
APPROPRIATION/BUDGET ACTIVITY								P-1 ITEM NOMENCLATURE				
<b>Weapons Procurement, Navy/BA-2/OTHER MISSILES</b>								<b>DRONES AND DECOYS (J2DJ)</b>				
Program Element for Code B Items:								Other Related Program Elements				
<b>N/A</b>								<b>N/A</b>				
	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY												
COST (\$M)	\$271.1			\$13.7	\$16.9	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$301.7
<p>PROGRAM COVERAGE:</p> <p>Funding for Drones and Decoys from FY 1986 through FY 1993 was used for continued procurements of ADM-141 Tactical Air Launched Decoy (TALD) units, which are non-powered, glide trajectory driven vehicles. The ADM-141 TALD is an expendable of similar size to a 500 pound general purpose bomb and is carried similarly. After launched from strike aircraft, the ADM-141 TALD uses radar signature augmentation and preprogrammed flight profiles to simulate manned aircraft. Its mission is to deceive and saturate hostile radar controlled air defenses, thus enhancing strike aircraft survivability. Currently, the F/A-18, F-14 and S-3 are fully qualified to deploy the ADM-141 TALD in both land based and CV operations.</p> <p>A Congressional add for FY 2004 is to fund conversion of Tactical Air Launch Decoys (TALD) into Improved Tactical Air Launch Decoys (ITALD) and to fund procurement of associated containers.</p>												

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

**February 2004**

TARGET SYSTEM: <b>ITALD</b> MANUFACTURER: <b>IIMI LTD, RATAT HASHARON, ISRAEL</b> COST CODE: <b>DJ010</b> FLYAWAY COST (\$000)	FISCAL YEAR 2003			FISCAL YEAR 2004			FISCAL YEAR 2005			
	Prior Yrs Total Cost	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
<b>HARDWARE:</b>										
ITALD	\$61,201	80	\$149	\$11,920	72	\$150	\$10,800	0	\$0	\$0
CONTAINERS	\$795	42	\$5	\$210	36	\$5	\$180			\$0
<b>TOTAL HARDWARE</b>	<b>\$61,996</b>	<b>80</b>	<b>\$0</b>	<b>\$12,130</b>	<b>72</b>	<b>\$0</b>	<b>\$10,980</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>
<b>PROCUREMENT SUPPORT (RECURRING):</b>										
CONTRACTOR ENGINEERING	\$812			\$0			\$0			\$0
GOVERNMENT IN-HOUSE	\$9,065			\$1,601			\$1,590			\$0
DOCUMENTATION	\$466			\$0			\$0			\$0
GOVERNMENT TEST	\$2,139			\$0			\$1,494			\$0
<b>TOTAL RECURRING</b>	<b>\$12,482</b>			<b>\$1,601</b>			<b>\$3,084</b>			<b>\$0</b>
<b>PROCUREMENT SUPPORT (NONRECURRING):</b>										
PRODUCT IMPROVEMENT	\$12,693			\$0			\$0			\$0
CONTRACTOR ENGINEERING	\$0			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$260			\$0
<b>TOTAL NONRECURRING</b>	<b>\$12,693</b>			<b>\$0</b>			<b>\$260</b>			<b>\$0</b>
<b>TOTAL FLYAWAY</b>	<b>\$87,171</b>	<b>80</b>	<b>\$172</b>	<b>\$13,731</b>	<b>72</b>	<b>\$199</b>	<b>\$14,324</b>	<b>0</b>	<b>\$0</b>	<b>\$0</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
FLEET TEST EQUIPMENT	\$0			\$0			\$0			\$0
TRAINING DEVICES	\$24			\$0			\$2,550			\$0
DOCUMENTATION	\$199			\$0			\$0			\$0
ILS	\$784			\$0			\$0			\$0
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>	<b>\$1,007</b>			<b>\$0</b>			<b>\$2,550</b>			<b>\$0</b>
<b>WEAPONS SYSTEM COST</b>	<b>\$88,178</b>	<b>80</b>	<b>\$172</b>	<b>\$13,731</b>	<b>72</b>	<b>\$234</b>	<b>\$16,874</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>
<b>VARIOUS 1/</b>	<b>\$182,967</b>									
TARGETS INITIAL SPARES	\$0			\$0			\$0			\$0
<b>TOTAL PROGRAM COST</b>	<b>\$271,145</b>	<b>80</b>	<b>\$172</b>	<b>\$13,731</b>	<b>72</b>	<b>\$234</b>	<b>\$16,874</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>

**P-1 SHOPPING LIST**

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)									A. DATE	
B. APPROPRIATION/BUDGET ACTIVITY									February 2004	
Weapons Procurement, Navy/BA-2; Other Missiles					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
					DRONES AND DECOYS				J2DJ	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
ADM-141C/FY01	56	160	NAVAIR	N/A	SS/FP	Ramat Hasaron, IS Israeli Military Industries	DEC 02	JAN 04	Yes	N/A
ADM-141C/FY02	74	160	NAVAIR	N/A	SS/FP	Ramat Hasharon, IS Israeli Military Industries,	DEC 02	MAR 04	Yes	N/A
ADM-141C/FY03	80	149	NAVAIR	N/A	SS/FP	Ramat Hasharon, IS Israeli Military Industries,	MAR 03	JUL 04	Yes	N/A
ADM-141C/FY04	72	150	NAVAIR	N/A	SS/FP	Ramat Hasharon, IS Israeli Military Industries,	Mar 04	Jul 05	Yes	N/A
D. REMARKS										



CLASSIFICATION:

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**BUDGET ITEM JUSTIFICATION SHEET**

**P-40**

DATE:

**FEBRUARY 2004**

APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2</b>	P-1 ITEM NOMENCLATURE <b>Other Missile Support(A2FD) BLI: 229000</b>
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Program Element for Code B Items:	Other Related Program Elements
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	FY 2002 and Prior	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	0		0	0	0	0	0	0	0	0	0
COST (\$M)	\$69.4		\$11.6	\$10.9	\$10.4	\$10.5	\$9.5	\$9.7	\$9.9	\$0.0	\$141.8
Initial Spares (\$M)	\$3.2		\$0.7	\$0.6	\$0.8	\$0.8	\$0.8	\$0.8	\$0.8	\$0.5	\$9.1

The MK-41 Vertical Launching System (VLS) is a surface combatant missile launching system, designed to store, select and launch various STANDARD Missile configurations, TOMAHAWK, Tactical TOMAHAWK, EVOLVED SEASPARROW (ESSM) and Vertical Launch ASROC (VLA) missiles. The MK-41 VLS significantly improves missile capacity, flexibility, multi-mission capability, reaction time and rate of fire and is designed to be adaptable to present and future weapon systems. Current configurations are: two 61 cell launchers, forward and aft, for 22 TICONDEROGA (CG 47) Class Cruisers beginning with CG-52; one 61 cell launcher forward for 5\* SPRUANCE (DD 963) Class Destroyers; one 61 cell aft and one 29 cell launcher forward for 28 ARLEIGH BURKE (DDG 51) Class Destroyers; and one 64 cell launcher aft and one 32 cell launcher forward for 32 DDG 51 FLT IIA ships.

WPN funds ILS support and initial training support for MK-41 VLS canisters and canister support equipment. WPN is required for Engineering Change Proposal (ECP) and Ordnance Alteration (ORDALT) development, procurement, installation, production support, technical documentation, canister and gas management hardware. Additionally, funding is required for: training in support of new missile variants ( ESSM, and Tactical TOMAHAWK); providing MK-41 VLS unique equipment to the weapon facilities; and providing ILS for various canisters and gas management configurations.

In FY01 and prior, MK-41 VLS canisters were funded under MK-41 VLS BLI 2290 for STANDARD Missile variants and TOMAHAWK. Beginning in FY-02, canisters are budgeted with the End Item under STANDARD Missile BLI 2234 and TOMAHAWK BLI 2101. The EVOLVED SEASPARROW Missile (ESSM) with Quad Pack (ESSM/QP) canisters were budgeted beginning in FY-01 Procurement under EVOLVED SEASPARROW (ESSM) BLI 2307. Budgeting with the End Item is now consistent across all missile types.

\* 19 SPRUANCE (DD 963) Class Ships are being decommissioned through FY-04 bringing the total to 5 DD-963's.

CLASSIFICATION:

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<b>WEAPONS SYSTEM COST ANALYSIS</b> P-5	Weapon System	DATE: <b>FEBRUARY 2004</b>
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APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2</b>	ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD  <b>Other Missile Support(A2FD) BLI: 229000</b>
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COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			FY 2002 and Prior	FY 2003			FY 2004			FY 2005						
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
FD005	TYPE I CANISTERS		9,766													
FD006	TYPE II CANISTERS		14,338													
FD009	CANISTER EQUIPMENT		7,409					3,175			3,470				3,294	
FD970	ILS SUPPORT		36,342					8,284			7,340				7,091	
FD980	INITIAL TRAINING SUPPORT		1,509					159			52				0	
			<b>69,364</b>					<b>11,618</b>			<b>10,862</b>				<b>10,385</b>	

FY 2004/05 BUDGET PRODUCTION SCHEDULE, P-21							DATE <b>FEBRUARY 2004</b>																											
APPROPRIATION/BUDGET ACTIVITY						Weapon System					P-1 ITEM NOMENCLATURE																							
Weapons Procurement, Navy/BA-2											Other Missile Suppot (A2FD) BLI: 229000																							
						Production Rate			Procurement Leadtimes																									
Item		Manufacturer's Name and Location				MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																				
TYPE I and TYPE II Canisters		United Defense, L.P. Minneapolis, Mn				120	330	480	3	3	18	18	21	E																				
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2002														FISCAL YEAR 2003													
							2002			CALENDAR YEAR 2002							CALENDAR YEAR 2003																	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L			
MK-13 (SM-2 BLK III/IIIA/IIIB)		01		75	64	11	11																								0			
MK-25 MOD 0 (ESSM/QP)		01		9	0	9	3	3	3																					0				
																														0				
																														0				
																														0				
																														0				
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2004														FISCAL YEAR 2005													
							2003			CALENDAR YEAR 2004							CALENDAR YEAR 2005																	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L			
																														0				
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																														0				
Remarks:		Minimum Sustaining Rates are met with Navy Acquisition and Direct Commercial Sale (DCS) quantities. ESSM/QP (MK-25 MOD 0) Qty shown for informational Purposes.																																

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BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: <b>February 2004</b>		
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/ BA - 2 Other Missiles</b>								P-1 ITEM NOMENCLATURE <b>AIM-9 Sidewinder Mods</b>				
Program Element for Code B Items:								Other Related Program Elements <b>0207161N</b>				
	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QUANTITY												
COST												
(In Millions)												
	74.466			0.583	0.0	0.0	0.0	0.0	0.0	0.0	\$0.0	75.049
<p>The AIM-9 Sidewinder short-range air-to-air missile (SRM) is a launch and leave, air combat munitions 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>AIM-9X started production with FY 2001 funds. Modifications to the AIM-9M to incorporate changes to ensure compatibility with F/A-18E/F are funded in FY01 through FY03.</p> <p>FY 2001 Program Justification: Successful LRIP DAB Milestone Decision on 22 Sept 2000. LRIP I option was awarded Nov 2000.</p> <p>FY 2002 Program Justification: Correction of forward hangar failures between AIM-9M and F/A18 E/F.</p> <p>FY 2003 Program Justification: Correction of forward hangar failures between AIM-9M and F/A18 E/F.</p> <p>The total quantity of missiles produced will be a combination of All up Rounds (AUR) and Captive Air Training Missiles (CATM).</p>												

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BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											February 2004	
APPROPRIATION/BUDGET ACTIVITY								P-1 ITEM NOMENCLATURE				
<b>Weapons Procurement, Navy</b>								<b>HARM Mods - AGM-88C/D/E (Subhead: J2ES)</b>				
Program Element for Code B Items:								Other Related Program Elements				
<b>232700</b>								<b>0205601N</b>				
	Prior Years	ID Code	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY2008	FY2009	To Complete	Total Program
QUANTITY												0
COST (\$M)			\$0.000	\$3.880	\$0.000	\$0.000	\$0.000	\$0.000	\$40.545	\$42.546	\$889.809	\$976.780
Initial Spares (\$M)												\$0.000
Total (\$M)			\$0.000	\$3.880	\$0.000	\$0.000	\$0.000	\$0.000	\$40.545	\$42.546	\$889.809	\$976.780
Unit Cost (\$M)			\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	
<p>MISSION DESCRIPTION: The High Speed Anti-Radiation Missile (HARM) is a joint-service air-to-service missile designed to suppress or destroy land and sea based radars involved with enemy air defense systems. HARM is integrated on the F/A-18 and EA-6B aircraft. HARM weighs 807 lbs, is 164 inches long and 10 inches in diameter. HARM is a joint-service program with USN (lead), USAF, and FMS participation. The HARM was in full production from FY1982 through FY1996. The USN procured 8,654 all-up-round (AUR) HARMs and 551 Block IV missile modification kits with WPN funding. The last year of USN WPN funding was appropriated in FY94.</p> <p>The HARM AGM-88B+/D (Block VI)/Precision Navigation Unit (PNU) Upgrade Program was a tri-national cooperative program that was designed to enable the fleet to maintain effectiveness against increasingly sophisticated, ground-based enemy radars. The Block VI/PNU design consists of a tactical software upgrade in conjunction with a hardware upgrade which includes the installation of an Inertial Measurement Unit (IMU) coupled with a Global Positioning System (GPS) receiver to provide improved guidance capability to current domestic and international customer inventories. The AGM-88B+/D (Block VI) was in development and was scheduled to start LRIP production in May 2003. Tri-national participation in the HARM Precision Navigation Upgrade (PNU) modification program was terminated in 3Q03.</p> <p>FY03 HARM MODS funding supported Advance Training Missile (ATM) procurement, HARM MODS Legacy production and post-production support costs.</p> <p>FY08 and FY09 funding supports the AGM-88E Advanced Anti-Radiation Guided Missile (AARGM) production program. The AGM-88E Advanced Anti-Radiation Guided Missile (AARGM) is designed to integrate a Multi-mode (passive Anti-Radiation Homing (ARH)/active Millimeter Wave (MMW) Radar/Global Positioning system/Inertial Navigation System (GPS/INS)) on the HARM AGM-88 missile. The AGM-88E AARGM will provide a cost-effective weapon that will detect, identify, engage, and destroy current and projected enemy Integrated Air Defense Systems and other time-sensitive targets. Specific AARGM weapon system capabilities include: counter shutdown, active Millimeter Wave guidance, expanded threat coverage, enhanced anti-radiation homing receiver, netted targeting real-time feed via Integrated Broadcasting Systems (IBS) prior to missile launch, weapon impact assessment transmitted prior to detonation, GPS/point-to-point weapon, and weapon operation in impact avoidance zone/missile impact zones. AARGM is now in the SD&amp;D phase of acquisition and will commence LRIP in FY08. AGM-88E Initial Operating Capability is expected in FY09. An estimated total AGM-88E procurement is for 1,750 missiles.</p>												

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**BUDGET ITEM JUSTIFICATION SHEET**

**P-40**

DATE:

**February 2004**

APPROPRIATION/BUDGET ACTIVITY

**Weapons Procurement, Navy/BA-2**

P-1 ITEM NOMENCLATURE

**STANDARD MISSILE MODIFICATION (A2FK) BLI:235600**

Program Element for Code B Items:

Other Related Program Elements

	FY2002 and Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY	525			89	80	79	79	79	80	70	19	1,100
COST (\$M)	\$277.4			\$54.2	\$50.5	\$51.8	\$53.1	\$54.1	\$55.4	\$49.7	\$13.6	\$659.8
Initial Spares (\$M)												\$0.0

PROGRAM OVERVIEW: The STANDARD Missile Modification Program modifies SM-2 BLK II and III missile into SM-2 BLK IIIB missiles. The program makes improvements in the operational readiness and electronic countermeasures performance of the missiles. These modifications are "turnkey" and do not involve separate install funding.

NOTE: No ERF,D funding.

P-1 SHOPPING LIST

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System								DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD STANDARD MISSILE MODIFICATION (A2FK) BLI:235600										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			2002 & Prior Years			FY 2003			FY 2004			FY 2005			
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
FK007	GC&A/SM-2 BLK IIIB Modification						89*	466.80	41,545	80***	520.23	41,618	79****	655.57	51,790
	MK 104 UPGRADE						89	55.16	4,909	-	-	-	-	-	-
	MK 54 S&A DEVICE						89	9.19	818	-	-	-	-	-	-
	MK 45 TDD MOD 9/MOD 14						Var **	Var **	5,149	80	110.50	8,840	-	-	-
	MK 125						89	19.96	1,776	-	-	-	-	-	-
			277,350						54,197			50,458			51,790

\* FY03 GC&A unit price includes radome life-of-type buy.

\*\* FY03 MK 45 TDD cost includes a mix of TDD assembly kits and new TDDs, and Mod 9 Design Renewal VECP incorporation. Excess TDDs in inventory were utilized with assembly kits.

\*\*\* FY04 SM-2 Blk IIIB missile mod unit price includes MK 104, MK 54, MK 125 components previously provided to Raytheon as Government Furnished Equipment (GFE), and GFE credits.

\*\*\*\* FY05 SM-2 Blk IIIB missile mod unit price includes new MK 45 TDD Mod 14 produced by Raytheon, and MK 104, MK 54, MK 125 components previously provided to Raytheon as GFE.

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CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
								February 2004		
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
<b>Weapons Procurement, Navy/BA-2</b>					<b>STANDARD MISSILE MODIFICATION BLI: 235600</b>				<b>A2FK</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<u>GC&amp;A/SM-2 BLK IIIB MODIFICATION</u>										
FY03 GC&A	89	466.80*	NAVSEA		SS/FFP/IF	RAYCO - Tucson, AZ	12/02	02/05	YES	
FY04 SM-2 BLK IIIB MOD	80	520.23**	NAVSEA		SS/FFP/IF	RAYCO - Tucson, AZ	12/03	03/06	YES	
FY05 SM-2 BLK IIIB MOD	79	655.57***	NAVSEA		SS/FFP/IF	RAYCO - Tucson, AZ	01/05	01/07	YES	
<u>MK 104 UPGRADE</u>										
FY03	89	55.16	NAVSEA		SS/FFP	RAYCO - Tucson, AZ	08/03	10/04	YES	
<u>MK 54 S&amp;A DEVICE</u>										
FY03	89	9.19	NAVSEA		SS/FFP	KAMAN - Middletown,CT	05/03	10/04	YES	
<u>MK 45 TDD</u>										
FY03 MOD 9	Various ****	Various ****	NAVSEA		MYP/SS/FFP	GD - Scottsdale,AZ	12/02	10/04	YES	
FY04 MOD 9	80	110.50	NAVSEA		MYP/SS/FFP	GD - Scottsdale,AZ	11/03	10/05	YES	
<u>MK 125 WARHEAD</u>										
FY03	89	19.96	NAVSEA		SS/FFP	AlliantTech - Magna,UT	08/03	10/04	YES	
D. REMARKS										
<p>* FY03 GC&amp;A unit price includes radome life-of-type buy.</p> <p>** FY04 SM-2 Blk IIIB missile mod unit price includes MK 104, MK 54, MK 125 components previously provided to Raytheon as Government Furnished Equipment (GFE), and GFE credits.</p> <p>*** FY05 SM-2 Blk IIIB missile mod unit price includes new MK 45 TDD Mod 14 produced by Raytheon, and MK 104, MK 54, MK 125 components previously provided to Raytheon as GFE.</p> <p>**** FY03 MK 45 TDD cost includes a mix of TDD assembly kits and new TDDs. Excess TDDs in inventory were utilized with assembly kits.</p>										

DD Form 2446-1, JUL 87

FY 2004/05 BUDGET PRODUCTION SCHEDULE, P-21						DATE	February 2004																																		
APPROPRIATION/BUDGET ACTIVITY						Weapon System		P-1 ITEM NOMENCLATURE																																	
WEAPONS PROCUREMENT NAVY/BA2								STANDARD MISSILE MODIFICATION BLI: 235600																																	
		Production Rate			Procurement Leadtimes																																				
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																											
MK 104 *	ARC, Camden, AR					156	TBD	TBD	-	5	19	19	24	EA																											
MK 54 *	Kaman, Middletown, CT					160	TBD	TBD	-	5	19	19	24	EA																											
MK 45 *	GD, Scottsdale, AZ					120	TBD	TBD	-	5	19	19	24	EA																											
MK 125 *	AlliantTech, Magna, UT					96	TBD	TBD	-	6	18	18	24	EA																											
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2003												FISCAL YEAR 2004												B A L										
							CY 2002			CALENDAR YEAR 2003									CALENDAR YEAR 2004																						
		O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P																
RAYCO	2000			74	45	29	7	2	3	10	7																														
RAYCO	2001			80	0	80																																			
RAYCO	2002			58	0	58																																			
RAYCO	2003			89	0	89																																			
RAYCO	2004			80	0	80																																			
RAYCO	2005			79	0	79																																			
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2005												FISCAL YEAR 2006												B A L										
							CY 2004			CALENDAR YEAR 2005									CALENDAR YEAR 2006																						
		O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P																
RAYCO	2002			58	46	12	5	4	3																																
RAYCO	2003			89	0	89																																			
RAYCO	2004			80	0	80																																			
RAYCO	2005			79	0	79																																			

Remarks: \* These components are also in the SM-2 Block IIIB missile budget (BLI 223400). The production rates apply to both STANDARD Missile BLI 223400 and STANDARD Missile Modifications BLI 235600 components.

FY 2004/05 BUDGET PRODUCTION SCHEDULE, P-21						DATE February 2004																									
APPROPRIATION/BUDGET ACTIVITY						Weapon System					P-1 ITEM NOMENCLATURE																				
WEAPONS PROCUREMENT NAVY/BA2											STANDARD MISSILE MODIFICATION BLI: 235600																				
						Production Rate			Procurement Leadtimes																						
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																	
MK 104 *	ARC, Camden, AR					156	TBD	TBD	-	5	19	19	24	EA																	
MK 54 *	Kaman, Middletown, CT					160	TBD	TBD	-	5	19	19	24	EA																	
MK 45 *	GD, Scottsdale, AZ					120	TBD	TBD	-	5	19	19	24	EA																	
MK 125 *	AlliantTech, Magna, UT					96	TBD	TBD	-	6	18	18	24	EA																	
ITEM / MANUFACTURER						F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2007													B A L							
						CY 2006			CALENDAR YEAR 2007									CALENDAR YEAR 2008													
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
RAYCO						2004		80	60	20																					
RAYCO						2005		79	0	79				7	7	6	7	7	6	7	7	6	7	6	6						
ITEM / MANUFACTURER						F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2009													B A L							
						CY 2008			CALENDAR YEAR 2009									CALENDAR YEAR 2010													
						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:						* These components are also in the SM-2 Block IIIB missile budget (BLI 223400). The production rates apply to both STANDARD Missile BLI 223400 and STANDARD Missile Modifications BLI 235600 components.																									

**CLASSIFICATION:**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>						DATE: <b>February 2004</b>					
<b>P-40</b>											
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>						P-1 ITEM NOMENCLATURE <b>Weapons Industrial Facilities BLI: 242000</b>					
Program Element for Code B Items:						Other Related Program Elements					
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QUANTITY											
COST (In Millions)			<b>\$17.1</b>	<b>\$32.7</b>	<b>\$4.0</b>	<b>\$4.1</b>	<b>\$4.2</b>	<b>\$4.3</b>	<b>\$4.4</b>		

This item provides funding to:

- Close, deactivate, prepare for disposal, and convey the two Government-owned contractor-operated (GOCO), Naval Weapons Industrial Reserve Plants (NWIRPs) under the cognizance of NAVAIR supported by WPN funds. The two facilities are NWIRP, McGregor TX and NWIRP, Toledo OH. Closure and deactivation is being accomplished in accordance with 41 CFR, Chapter 101, Federal Property Management Regulations, and other applicable guidance. Upon completion of divestiture there will no longer be a requirement to fund these facilities.
- Accomplish environmental remediation as required by law in accordance with Section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Executive Order 12898, Environmental Justice. CERCLA 120(h) requires assurance of environmental contamination remediation prior to disposal of Government real property. This assurance is provided by following guidance promulgated by ASSTSECNAV (I&E) memo of 22 December 1993, Application of BRAC Environmental Procedures to Non-BRAC Identification of Uncontaminated Property and Cleanup of Contaminated Property at Closing Installations.
- Develop Environmental Impact Statements (EISs) and conduct Cultural Resource Surveys as required by law. The EISs and Cultural Resource Surveys must be accomplished in accordance with 40 CFR, the National Environmental Policy Act (NEPA) and other applicable guidance. The NEPA process is required for any major Federal action affecting the environment. Application to GOCO divestitures was confirmed by NAVAIR Counsel in letter serial AIR-7.7.4/REC of 3 April 95, which based its conclusion on OPNAVINST 5090.1B, the Defense Authorization Acts of 1994 and 1995, and case law.
- Dispose of the facilities as required by law. NWIRP, McGregor TX is being accomplished in accordance with Section 2868, Land Conveyance, NWIRP, McGregor, TX of Public Law 104-106, National Defense Authorization Act for FY-1996. The mandatory divestiture of NWIRP, Toledo OH will be accomplished in accordance with ASSTSECNAV (RD&A) memo of 7 July 1995, 41 CFR, Chapter 101, Federal Property Management Regulations and other applicable guidance.
- Accomplish explosive decontamination of NWIRP, McGregor TX in accordance with AMCCOMR 385-2, Decontamination and Disposal of Facilities, Equipment and Material and other applicable guidance prior to transfer of the facility to the city of McGregor as required by law.
- Close, deactivate, prepare for disposal, and convey the Government-owned contractor operated (GOCO), Naval Weapons Industrial Reserve Plant (NWIRP) Bedford, MA under the cognizance of NAVSEA supported by WPN funds.
- Supports Capital Type Rehabilitation projects at two GOCO plants, Naval Industrial Reserve Ordnance Plant (NIROP) Allegany Ballistics Laboratory (ABL), WV and NIROP Fridley, MN. NIROP ABL supports weapons systems such as Sparrow, ESSM, ERGM, AIM-9X, Ramjet, AGS, Tomahawk GG and Trident GG. NIROP Fridley supports weapons systems such as VLS Mk 41, VLS Canisters, Mk 45 Mod 4, and AGS. 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. Funding is separated to reflect environmental, safety, major repair, energy conservation and facilities restoration.

(CONTINUED ON PAGE 2 OF 2)

**CLASSIFICATION:**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>						DATE: <b>February 2004</b>					
<b>P-40</b>											
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>						P-1 ITEM NOMENCLATURE <b>Weapons Industrial Facilities (BLI 242000)</b>					
Program Element for Code B Items:						Other Related Program Elements					
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QUANTITY											
COST (In Millions)			<b>\$17.1</b>	<b>\$32.7</b>	<b>\$4.0</b>	<b>\$4.1</b>	<b>\$4.2</b>	<b>\$4.3</b>	<b>\$4.4</b>		
<p>(CONTINUED FROM PAGE 1 OF 2)</p> <ul style="list-style-type: none"> <li>- 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.</li> <li>- 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.</li> <li>- 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.</li> <li>- 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).</li> <li>- FACILITIES RESTORATION: Provides funds for replacement of Weapons Industrial Facilities at NIROP ABL in Rocket Center, WV that have exceeded their useful life and deteriorated beyond safe operations (personnel &amp; explosive).</li> </ul>											

CLASSIFICATION:

**UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS										DATE:			
P-5										February 2004			
APPROPRIATION/BUDGET ACTIVITY					P-1 ITEM NOMENCLATURE/SUBHEAD								
Weapons Procurement, Navy/BA-2					37073 Weapons Industrial Facilities BLI: 242000								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS										
			Prior Years	FY 2003			FY 2004			FY 2005			
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
FU002	Capital Type Rehabilitation												
	Environmental						3,065			3,123			3,215
	Safety						0			0			0
	Energy Conservation						1,023			794			822
	Major Repairs									0			0
FU005	Facilities Restoration (ABL)						9,619			25,255			0
FU020	Government-Owned Contractor-Operated Facilities Divestiture												
	NWIRP McGregor						2,838			3,526			0.000
	NWIRP Toledo						580			0.000			0.000
	Various 1/		88.873										
1/ The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY2003 and beyond.													
							17,125			32,698			4,037

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Exhibit P-40, Budget Item Justification								Date February 2004				
Appropriation (Treasury) Code/CC/BA/BSA/Item Control Number Weapons Procurement, Navy/2/250000								P-1 Line Item Nomenclature Ordnance Support Equipment				
Program Element for Code B Items:						Other Related Program Elements						
	ID Code		Prior Years	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
Proc Qty												
Gross Cost												
Less PY Adv Proc												
Plus CY Adv Proc												
Net Proc (=P-1)												
Initial Spares												
Total Proc Cost				5.318	15.247	56.073	40.879	47.884	49.196	9.907	Continuing	Continuing
Flyaway U/C												
Wpn Sys Proc U/C												
Description												
THE DETAILS FOR THIS LINE ITEM ARE HELD AT A HIGHER CLASSIFICATION LEVEL.												

P-1 Shopping List - Item No 19

CLASSIFICATION:

BUDGET ITEM JUSTIFICATION SHEET										DATE:	
P-40										February 2004	
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE					
<b>Weapons Procurement, Navy/Torpedoes &amp; Related Equipment, BA-3</b>						<b>ASW TARGETS LI#314100</b>					
Program Element for Code B Items:						Other Related Program Elements					
<b>0204271N</b>											
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QTY MODS MK-39/2		A	501	500	1,000	1,000	1,000	1,000	1,000	N/A	N/A
QTY MODS MK-30/2		A	0	6	5	5	5	7	7	N/A	N/A
COST (\$M)			\$9.4	\$25.3	\$24.0	\$24.4	\$24.8	\$29.7	\$30.3	Cont.	Cont.
Initial Spares (\$M)			\$0.6	\$1.0	\$0.9	\$1.0	\$0.9	\$0.9	\$0.9	Cont.	Cont.
TOTAL (\$M)			\$10.0	\$26.3	\$24.9	\$25.4	\$25.7	\$30.6	\$31.2	Cont.	Cont.
<p>ITEM DESCRIPTION/JUSTIFICATION:</p> <p>This line item includes two distinct systems : (a) MK 39 Mod 2 (Cost Codes TG002, TG832, TG842, TG852, TG862 and TG900) and (b) MK30 Mod 2 (Cost Codes TG005, TG015, TG835, TG865 , TG875, TG885, TG900 and TG905).</p> <p>The MK 39 Mod 2 Expendable Mobile ASW Training Target (EMATT) is a small self-propelled underwater vehicle launchable from fixed wing and rotary wing ASW aircraft and ASW surface ships for the purpose of providing basic, open ocean sonar training and MK 46, MK 48, ADCAP and MK 50 placement exercises. Its operation consists of a dynamic run trajectory that is actively controlled in depth and course with pre-programmable run maneuvers and is capable of generating a magnetic field (anomaly) detectable by all current Navy Magnetic Anomaly Detectors (MAD).</p> <p>The MK 30 Mod 2 is the new generation fleet ASW training target for training the Navy surface ship, submarines and aircraft that will be capable of simulating submarine threats anticipated in the twenty-first century littoral warfare environment. Replacing the aging MK 30 Mod 1 target, MK 30 Mod 2 is a highly reliable and maintainable unmanned undersea vehicle simulating the dynamics, acoustics and magnetic signature of submarines and act as a target for ASW sensors and torpedoes to detect, classify, track and pursue in a realistic training environment. The MK30 Mod 2 WPN funding in FY02 and FY03 provides for field activity and contractor support to address hardware obsolescence issues and product improvements prior to full rate production in FY04.</p>											

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

Page 1 of 5

CLASSIFICATION:

**UNCLASSIFIED**

<b>WEAPONS SYSTEM COST ANALYSIS</b> P-5	DATE: <b>February 2004</b>
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APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b> <b>BA-3: Torpedo and Related Equipment</b>	P-1 ITEM NOMENCLATURE/SUBHEAD <b>ASW Targets/H3TG</b>
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COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			Prior Years	FY 2003			FY 2004			FY 2005				
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
	N76													
TG002	MK39 Mod 2 - EMATT	A		501	3	1,629	500	3	1,640	1,000	3	3,370		
TG832	Prod Eng (In-house)	A				600			649			1,195		
TG842	Quality Assurance	A				0			45			87		
TG862	Acceptance T & E	A				0			55			107		
TG900	Consulting Services	A				100			107			111		
	<b>Total MK39 Mod 1/2 - EMATT</b>	<b>A</b>				<b>2,329</b>			<b>2,496</b>			<b>4,870</b>		
	N78													
TG005	MK30 Mod 2	A			0	0	6	3,184	19,104	5	2,995	14,975		
TG015	MK30 Mod 2 Support Equipment	A				0			1,254			1,495		
TG835	Production Engineering (In-house)	A				1,922			1,868			1,943		
TG885	Site Installation and Checkout	A				0			0			100		
TG900	Consulting Services	A				100			120			125		
TG905	Production Engineering (Contractor)	A				4,999			500			465		
	<b>Total MK30 Mod 2</b>	<b>A</b>				<b>7,021</b>			<b>22,846</b>			<b>19,103</b>		
						<b>9,350</b>			<b>25,342</b>			<b>23,973</b>		

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CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
								<b>February 2004</b>		
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
<b>Weapons Procurement, Navy</b>					<b>ASW Targets</b>				<b>H3TG</b>	
<b>BA-3: Torpedo and Related Equipment</b>										
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>FY2003</b> MK39 Mod 2 - EMATT/ECPs	501	3.25	NAVSEA	N/A	C/FFP-Option	Sippican, Inc. Marion, MA	Feb-03	Feb-04	Yes	NA
<b>FY2004</b> MK39 Mod 2 - EMATT/ECPs	500	3.28	NAVSEA	N/A	C/FFP-Option	Sippican, Inc. Marion, MA	Feb-04	Feb-05	Yes	NA
MK30 Mod 2	6	3,184	NAVSEA	Oct-03	C/FFP	TBD	Mar-04	Sep-05	Yes	NA
<b>FY2005</b> MK39 Mod 2 - EMATT/ECPs	1,000	3.37	NAVSEA	NA	C/FFP-Option	Sippican, Inc. Marion, MA	Feb-05	Feb-06	Yes	NA
MK30 Mod 2	5	2,995	NAVSEA	NA	C/FFP-Option	TBD	Nov-04	May-06	Yes	NA
D. REMARKS										

FY 2003 BUDGET PRODUCTION SCHEDULE, P-21						DATE	February 2004																							
APPROPRIATION/BUDGET ACTIVITY: Weapons Procurement, Navy						Weapon System				P-1 ITEM NOMENCLATURE																				
BA-3: Torpedo and Related Equipment										ASW Targets/H3TG																				
						Production Rate			Procurement Leadtimes																					
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure																
ASW Targets - MK39 Mod2	Sippican, Inc. Marion, MA					40	250	1500	0	6	16	12	18																	
ASW Targets - MK30 Mod 2	TBD					3	12	20	1	6	18	18	24																	
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2002												FISCAL YEAR 2003												B A L
						2001			CALENDAR YEAR 2002									CALENDAR YEAR 2003												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
MK39 Mod2 Sippican, Inc.	2003		501	0	501																						0			
																											0			
																											501			
ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2004												FISCAL YEAR 2005												B A L
						2003			CALENDAR YEAR 2004									CALENDAR YEAR 2005												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
MK39 Mod2 Sippican, Inc.	2003		501	0	501																						0			
MK39 Mod2 Sippican, Inc.	2004		500	0	500																						0			
MK39 Mod2 Sippican, Inc.	2005		1,000	0	1,000																						1000			
MK 30 Mod 2/TBD	2004		6	0	6																						1			
MK 30 Mod 2/TBD	2005		5	0	5																						5			
Remarks:																														



CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/ Torpedoes &amp; Related Equipment, BA-3</b>							P-1 ITEM NOMENCLATURE <b>Torpedo MK46 Mods/MK54 Mod 0, H3F5, LI# 321500</b>						
Program Element for Code B Items: <b>0204228N</b>							Other Related Program Elements <b>0604610N Lightweight Torpedo Development</b>						
	FY 2002 and Prior	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		To Complete	Total Program	
QUANTITY	17	B	29	51	94	186	215	310	349		cont.	1,251	
COST (\$M)	\$45.2		\$37.8	\$42.3	\$61.4	\$76.6	\$96.3	\$115.7	\$128.7		cont.	\$604.0	
Initial Spares (\$M)			\$1.6	\$1.3	\$3.4	\$2.7	\$3.4	\$3.6	\$3.9		cont.	\$0.0	
<p>ITEM DESCRIPTION/JUSTIFICATION:</p> <p>The MK54 Mod 0 Lightweight Torpedo maximizes the use of NDI technologies from existing torpedo programs with state of the art COTS processors and is a modular upgrade to Lightweight Torpedo Inventory. It is comprised of the MK50 sonar, MK46 warhead and propulsion system and new COTS processors which will use tactical software derived from MK50 and MK48 ADCAP. The MK54 will provide improved performance against diesel electric submarine threats operating in shallow water.</p> <p>The total Lightweight torpedo inventory is composed of a mix of MK46 5A(S), MK46 5A(SW), MK50, and MK54.</p> <p>An additional 5 units were purchased as part of an asset exchange in FY03, bringing the total units procured to 34.</p> <p><a href="#">Performance Spec Milestone: June 1996</a></p> <p><a href="#">Technical Data Package: March 2002</a></p> <p><a href="#">DTE: July 1999 - October 2002</a></p> <p><a href="#">OPEVAL: August 2003 - April 2004</a></p>													

P-1 SHOPPING LIST

CLASSIFICATION:

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CLASSIFICATION:

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<b>WEAPONS SYSTEM COST ANALYSIS</b> P-5				Weapon System				DATE: <b>February 2004</b>				
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/ Torpedoes &amp; Related Equipment, BA-3</b>				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Aug-03 Torpedo MK46 Mods/MK54 /Mod 0, H3F5, LI# 321500							

COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS																				
			FY 2002 and Prior			FY 2003			FY 2004			FY 2005											
			Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost									
F5103	Field Support Operations	B			1,561																		
F5104	Hardware (Contractor, Installation, ECP, TI)		17	1,221	20,764	29	878	25,476	51	569	29,030	94	459	43,135									
F5105	Fleet Exercise Systems				1,099			0			400			746									
F5106	MK 54 Platform Integration				705			0			0			0									
F5107	MK54/VLA Flight & Integration				174			0			0			0									
F5003	Support Equipment *				4,186			478			509			4,542									
F5830	Production Engineering-In-house				9,235			2,795			2,859			2,925									
F5860	Accept. Test & Evaluation				6,275			8,500			8,924			9,465									
F5900	Production Engineering-Contractor				1,170			597			610			600									
					<b>45,169</b>						<b>37,846</b>						<b>42,332</b>						<b>61,413</b>

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\* Support Equipment budget includes the cost of procurement of 2 MK54 Test Sets in FY05.

CLASSIFICATION:

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B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Weapons Procurement, Navy					Torpedo MK46 Mods/MK54 Mod 0, H3F5, LI# 321500				H3F5	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
MK 54 Mod 0/ 2003	29	878	NAVSEA	n/a	SS/FP	Raytheon, Keyport, WA	Mar-03	Nov-04	Yes	
MK 54 Mod 0/ 2004	51	569	NAVSEA	n/a	SS/FP	Raytheon, Keyport, WA	Apr-04	Dec-05	Yes	
MK 54 Mod 0/ 2005	94	459	NAVSEA	n/a	option	Raytheon, Keyport, WA	Dec-04	Aug-06	Yes	
D. REMARKS										

CLASSIFICATION:  
UNCLASSIFIED

**BUDGET ITEM JUSTIFICATION SHEET**  
**P-40**

DATE:  
**February 2004**

APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-3 Torpedo and Related Equipment</b>						P-1 ITEM NOMENCLATURE <b>MK 48 ADCAP MODS Torpedo BLI: 322500 SBHD: H3D1</b>					
Program Element for Code B Items: <b>0204284N</b>						Other Related Program Elements <b>0205632N Heavyweight Torpedo Development</b>					
	Fy2002 & Prior	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY MODS	805	A	105	76	78	0	0	0	0	0	1,064
QUANTITY CBASS	0	B	0	15	15	84	106	136	142	765	1,263
COST (\$M)	\$389.6		\$60.6	\$59.9	\$61.2	\$62.1	\$63.1	\$64.7	\$66.1	\$479.4	\$1,306.7
Initial Spares (\$M)			\$3.0	\$6.7	\$6.4	\$5.6	\$4.1	\$3.3	\$3.3	CONT.	\$0.0

ITEM DESCRIPTION/JUSTIFICATION:

This line item procures Modification Kits for the MK48 ADCAP MODs including the Common Broadband Advanced Sonar System (CBASS) upgrade.

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

The Common Broadband Advanced Sonar System (CBASS), starting in FY04 with the purchase of 15 LRIP units, will incorporate into the ADCAP MODs torpedo a new wide band sonar system and software algorithms. These new elements will provide the capability to transmit and receive over a wide frequency band to take advantage of broadband signal processing techniques. These improvements are necessary to introduce current and future improvements in advanced threat countermeasures capabilities. All FY06 and FY07 CBASS units include the procurement of the Torpedo Propulsion Upgrade, required for compatibility with the Guidance and Control modifications. This results in a higher unit cost in those years.

P-1 SHOPPING LIST

CLASSIFICATION:

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CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5					Weapon System							DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Related Equipment					ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD MK 48 ADCAP MODS Torpedo BLI: 322500 SBHD: H3D1								
COST CODE	ELEMENT OF COST	ID Code	FY 2002 & prior yrs			FY 2003			FY 2004			FY 2005		
			Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
D1001	<u>ADCAP MODS</u> <u>CBASS</u> <u>(Contractor, Installation, ECP, TI)</u>	A B	805	17	138,907	105	295	31,016	76	311	23,659	78	308	24,047
									15	503	7,540	15	499	7,481
D1003	<u>Support and Ancillary Equipment</u>				23,942			2,939			3,007			3,187
D1830	<u>Production Engineering</u> <u>(Contractor and In House)</u>				132,189			12,811			12,651			12,619
D1860	<u>Acceptance T&amp;E</u> <u>(Contractor and In House)</u>				94,554			13,858			13,066			13,851
					389,592			60,624			59,923			61,185

CLASSIFICATION:

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE					SUBHEAD	
Weapons Procurement, Navy					MK 48 ADCAP MODS Torpedo BLI: 322500					SBHD: H3D1	
BA-3 Torpedo and Related Equipment											
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE	
FY03 MK48 MOD6	105	295	NAVSEA	N/A	SS/FP	Raytheon Systems Corporation	Nov-02	Aug-04	YES		
FY04 MK48 MOD6	76	311	NAVSEA	N/A	SS/FP	Raytheon Systems Corporation	Apr-04	Jan-06	YES		
FY04 CBASS	15	503	NAVSEA	N/A	SS/FP	Raytheon Systems Corporation	Apr-04	Oct-05	YES		
FY05 MK48 MOD6	78	308	NAVSEA	N/A	SS/FP	Raytheon Systems Corporation	Dec-04	Sep-06	YES		
FY05 CBASS	15	499	NAVSEA	N/A	SS/FP	Raytheon Systems Corporation	Dec-04	Jun-06	YES		

D. REMARKS  
 Unit cost reflected in this budget includes install cost from prior year buys.  
 The quantity installed in any given year is different from the procurement quantity.

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET											DATE:	
P-40											February 2004	
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE					
<b>Weapons Procurement, Navy BA-3: Torpedoes and Related Equipment</b>							<b>QUICKSTRIKE/323100/73QS</b>					
Program Element for Code B Items:							Other Related Program Elements					
							<b>204304N</b>					
	FY 2002 and Prior	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY												
COST (\$M)	\$5.6	A		\$2.0	\$3.2	\$3.0	\$3.0	\$3.1	\$3.1	\$13.9	CONT.	CONT.
Initial Spares (\$M)	\$0.0	A		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	CONT.	CONT.
PROGRAM DESCRIPTION/JUSTIFICATION:												
<p>The QUICKSTRIKE family of mines consists of the MK-62 and MK-63 (500 lb. and 1000 lb. Mines) based on MK-82 and MK-83 general purpose bombs respectively, and the MK-65 (2000 lb.) mine. The Mod 0, 1, and 3 variants utilize various target detection devices (TDD). QUICKSTRIKE (QS) Mod 3 utilizes a newly developed TDD, MK-71. The MK-71 is a software-programmable device that is capable of being programmed to optimize detection of new threats. The QS Mod 3 consists of Target Detection Devices (including the service and dummy MK-71), Safe/Arming devices (including the service MK 75, practice MK 81, and dummy MK 84), and battery (including the MK 176). Additional support hardware include Test Sets MK-650 and MK-11, Adapters MK 157 and MK 163, and miscellaneous parts kits. The 2010 Mine is being developed beginning in FY 2003 as a replacement for the Mine MK-56, designated to be removed from service beginning in FY 2010.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5			Weapon System									DATE: <b>February 2004</b>			
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy, BA-3: Torpedoes and Related Equipment</b>			ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD <b>QUICKSTRIKE/323100/73QS</b>											
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 2003			FY 2004			FY 2005					
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
QS001	TDD Mk71	A	2,500						0	37	18	651	65	19	1,231
QS002	QUICKSTRIKE MOD KITS		112						0	74	9	633	130	8	1,101
QS003	2010 MINE		0						0			0			0
QS005	SUPPORT HARDWARE		558						665			180			50
QS830	PRODUCTION ENGINEERING		817						363			384			359
QS840	QUALITY ASSURANCE		157						229			217			100
QS850	SOFTWARE ENGINEERING		1,462						0			994			110
QS860	ACCEPTANCE T&E		66						719			127			30
			<b>5,672</b>	<b>0</b>			<b>0</b>		<b>1,976</b>			<b>3,186</b>			<b>2,981</b>

CLASSIFICATION:

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE <b>February 2004</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy, BA-3: Torpedoes and Related Equipment</b>					C. P-1 ITEM NOMENCLATURE <b>QUICKSTRIKE/323100</b>				SUBHEAD <b>73QS</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b><u>FISCAL YEAR 2003</u></b>										
N/A										
<b><u>FISCAL YEAR 2004</u></b>										
QS001 TDD Mk71	37	18	NAVSEA	OPTION	C/FFP	SECHAN, LITITZ, PA	11/03	11/04	YES	N/A
QS002 MOD KITS	74	9	NSWC, PANAMA CITY, FL	OPTION	C/FFP	N/A	11/03	11/04	YES	N/A
<b><u>FISCAL YEAR 2005</u></b>										
QS001 TDD Mk71	65	19	NAVSEA	OPTION	C/FFP	SECHAN, LITITZ, PA	11/04	11/05	YES	N/A
QS002 MOD KITS	130	8	NSWC, PANAMA CITY, FL	OPTION	C/FFP	N/A	11/04	11/05	YES	N/A
D. REMARKS										

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2004	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-3 Torpedo and Related Equipment</b>							P-1 ITEM NOMENCLATURE <b>Torpedo Support Equipment BLI: 330100 SBHD: H3F8</b>					
Program Element for Code B Items:							Other Related Program Elements					
	FY 2002 and Prior	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program	
QUANTITY												
COST (\$M)	CONT.		\$24.5	\$24.8	\$23.4	\$41.7	\$26.7	\$30.4	\$28.3	CONT.	CONT.	
Initial Spares (\$M)			\$1.6	\$0.4	\$0.6	\$0.4	\$0.7	\$0.9	\$1.0	CONT.	CONT.	
<p>The Torpedo Support Equipment account procures various 4T and associated torpedo components required to ready weapons for Surface Ships, Sub-Surface, Fixed Wing, and Rotary to achieve and maintain a readiness posture sufficient to counter the enemy sub-surface threat. The objective of this line is to provide the Fleet with ready exercise weapons for conducting training maneuvers which involve actually firing the torpedoes, and to maintain warshot inventories in an operational ready-for-issue status in support of combat ready deployment by anti-submarine warfare forces. After a torpedo is fired during a training exercise it is recovered and all expendable components such as batteries, cables, igniters (as well as various accessories required for air-launched torpedoes), must be replaced. These items as well as components such as exercise heads, fuel tanks, and exhaust valves which may be used more than onetime, but which are worn out or lost in service, are procured each fiscal year in quantities dependent upon the Fleet training requirements and tempo of operations. The torpedoes requiring support are the MK46 Mod 5A(S), MK46 Mod 5A(SW), MK 48 Mod 4, 5, and 6, MK 50, MK 54 and their associated Support and Test Equipment (S&amp;TE). Cost codes F8001- Lightweight Support Equipment and F8100 - Heavyweight Exercise and Expendables and Component Replacement procures 4T components to support Fleet Proficiency Firings. 4T Components includes the following: lead droppers, seawater batteries, pressure cylinders, REXTORP kits, sway brace pads, suspension bands, thermal batteries, boiler assemblies, stop squibs, shutdown valves, gas injection assemblies, tailnuts, air stabilizers, wire coils, flex hoses, otto fuel, igniters, propellant, umbilical cables, and containers. Cost Codes F8002 - Lightweight Other Equipment Investment and F8101 - Heavyweight Other Equipment Investment procures and installs ECP/ORDALT material required for Support and Test Equipment and to retrofit torpedoes including 4T components to the latest ready-for-issue (RFI) configuration. In addition to 4T components procurement and other equipment investment, this account provides for production support and test/evaluation for these components and procurement of product improvement hardware and related equipment.</p> <p>During POM04, FY06 - 09 Heavyweight funding was increased to procure Torpedo Support Equipment necessary to increase MK 48 ADCAP Toredpo Proficiency exercise firings as requested by Commander Naval Submarine Forces and approved by N77. The significant increase is necessary to provide 4T COG items for the increased firing requirements in FY07 and out.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-3 Torpedo and Other Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Torpedo Support Equipment BLI: 330100 SBHD: H3F8											
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			FY 2002 and Prior			FY 2003			FY 2004			FY 2005				
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost				
	N76															
F8001	Lightweight Support Equipment					448			190				1,450			
F8002	Other Equipment Investment					3,219			4,083				1,695			
F8830	Production Engineering - In House					1,623			1,267				1,296			
F8840	Quality Assurance					65			172				73			
F8860	Acceptance T & E					449			452				444			
F8900	Production Engineering - Contractor					180			183				187			
Total	Lightweight Total					<b>5,984</b>			<b>6,347</b>				<b>5,145</b>			
	N77															
F8100	Exercise and Expendables and Component Replacement					6,678			7,922				8,082			
F8101	Other Equipment Investment					9,011			7,533				6,428			
F8833	Production Engineering (In-house)					1,631			1,443				2,055			
F8843	Quality Assurance					400			589				632			
F8863	Acceptance Test and Evaluation					220			223				359			
F8893	Production Engineering - Contractor					600			700				700			
Total	Heavyweight Total					<b>18,540</b>			<b>18,410</b>				<b>18,256</b>			
						<b>24,524</b>			<b>24,757</b>				<b>23,401</b>			

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<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>	Weapon System	<b>A. DATE</b> <b>February 2004</b>
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<b>B. APPROPRIATION/BUDGET ACTIVITY</b> <b>Weapons Procurement, Navy</b> <b>BA-3 Torpedo Support Equipment</b>	<b>C. P-1 ITEM NOMENCLATURE</b> <b>Torpedo Support Equipment</b>	<b>SUBHEAD</b> <b>H3F8</b>
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Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
FY2003										
Otto Fuel	28	12.970	NSWC Indian Head	Option	SS / FFP	NSWC Indian Head, MD	8/03	10/03	Yes	
MK50 REXTORP Kit	300	0.100	NUWC, Keyport	Option	C / FFP	Team Keyport Services, Poulsbo WA	1/03	9/03	Yes	
Universal REXTORP	2	27.500	NUWC, Keyport	11/02	C / FFP	Team Keyport Services, Poulsbo WA	1/03	1/04	Yes	
Torpedo Wire Coil	762	2.949	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	7/03	6/04	Yes	
Sub Wire Coil	450	2.099	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	7/03	4/04	Yes	
Flex Hose (Improved)	865	1.036	NAVSEA	Option	C / FFP	Cortland Cable Co, Cortland, NY	1/03	12/03	Yes	
Otto Fuel	172	12.970	NSWC Indian Head	Option	C / FFP	NSWC Indian Head, MD	1/03	2/03	Yes	
Igniter	800	0.151	NAVSEA	Option	C / FFP	Quantic, Hollister, CA	5/03	1/04	Yes	
MK62-1 A-Cable Recepticle	120	1.213	NAVSEA	Option	C / FFP	SEACON Phoenix, Westerly, R.I.	5/03	4/04	Yes	
MK62-1 A-Cable Insert	1000	0.092	NAVSEA	Option	C / FFP	General Reliance Inc., Denville NJ	5/03	10/03	Yes	
FY2004										
MK50 REXTORP Kit	500	0.100	NUWC, Keyport	1/04	C / FFP	Unknown	3/04	8/04	Yes	
MK50 Single Card Data Recorder	10	4.000	NUWC, Keyport	Option	C / FFP	Team Keyport Services, Poulsbo WA	12/03	1/05	Yes	
Otto Fuel	6	16.650	NSWC Indian Head	Option	SS / FFP	NSWC Indian Head, MD	12/03	2/04	Yes	
Torpedo Wire Coil	775	3.099	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	3/04	1/05	Yes	
Sub Wire Coil	800	2.135	NAVSEA	1/04	C / FFP	Unknown	3/04	1/05	Yes	
Flex Hose (Improved)	650	1.080	NAVSEA	Option	C / FFP	Cortland Cable Co, Cortland, NY	1/04	1/04	Yes	
Otto Fuel	134	16.650	NSWC Indian Head	Option	SS / FFP	NSWC Indian Head, MD	12/03	2/04	Yes	
Igniter	700	0.250	NAVSEA	1/04	C / FFP	Unknown	3/04	1/05	Yes	
Propellant	500	0.750	NAVSEA	1/04	SS / FFP	Unknown	3/04	1/05	Yes	
MK62-1 A-Cable Recepticle	201	1.154	NAVSEA	Option	C / FFP	SEACON Phoenix, Westerly, R.I.	3/04	1/05	Yes	
MK62-1 A-Cable Insert	1000	0.097	NAVSEA	Option	C / FFP	General Reliance Inc., Denville NJ	3/04	1/05	Yes	

<b>D. REMARKS</b>
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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE					SUBHEAD	
Weapons Procurement, Navy					Torpedo Support Equipment					H3F8	
BA-3 Torpedo Support Equipment					Torpedo Support Equipment					H3F8	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE	
FY2005											
Universal REXTORP	50	28.000	NUWC, Keyport	11/04	C / FFP	Unknown	1/05	1/06	Yes		
MK50 REXTORP Kit	500	0.100	NUWC, Keyport	Option	C / FFP	Unknown	3/05	8/05	Yes		
Torpedo Wire Coil	743	3.069	NAVSEA	Option	C / FFP	Entwistle, Hudson, MA	3/05	1/06	Yes		
Sub Wire Coil	1200	2.200	NAVSEA	Option	C / FFP	Unknown	3/05	1/06	Yes		
Flex Hose (Improved)	1200	1.080	NAVSEA	11/04	C / FFP	Unknown	3/05	1/06	Yes		
Igniter	700	0.250	NAVSEA	Option	C / FFP	Unknown	3/05	1/06	Yes		
Propellant	1000	0.750	NAVSEA	Option	SS / FFP	Unknown	3/05	1/06	Yes		
MK62-1 A-Cable Receptacle	840	1.000	NAVSEA	Option	C / FFP	SEACON Phoenix, Westerly, R.I.	3/05	1/06	Yes		
MK62-1 A-Cable Insert	1000	0.100	NAVSEA	Option	C / FFP	General Reliance Inc., Denville NJ	3/05	1/06	Yes		
D. REMARKS											

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 2004		
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>						P-1 ITEM NOMENCLATURE <b>BA 3 - Torpedoes and Related Equipment</b>						P-1 ITEM NOMENCLATURE <b>ASW Range Support BLI: 330200 SBHD: 83F4/73F4</b>	
Program Element for Code B Items:						Other Related Program Elements							
	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program	
QUANTITY													
COST (\$M)				\$ 15.921	\$ 14.453	\$ 12.935	\$ 13.051	\$ 13.259	\$ 13.499	\$ 13.763	Continuing	Continuing	
Initial Spares (\$M)													
<p>The ASW Range support program provides training range equipment, weapon proofing range equipment, and Fleet support equipment for use on the Navy's underwater ranges. This equipment is used to instrument Fleet exercises and torpedo firings, ASW readiness assessment and ASW weapon production acceptance testing. The Weapon Fleet training ranges supported are Southern California Offshore Range (SCORE), Barking Sands Tactical Underwater Range/Barking Sands Underwater Range Extension (BARSTUR/BSURE), Atlantic Underwater Test and Evaluation Center (AUTEC) and Test and Evaluation (T&amp;E) ranges are Nanoose, Dabob Bay and Quinault.</p> <p>F4001 - Pinger Exercise Components are placed in weapons and other underwater vehicles for tracking during training and T&amp;E exercises, and to insure safe operation and movement of all craft and weapons on the ranges. In addition, pinger components are also procured to support the future Shallow Water Training Ranges at both coasts and Hawaii.</p> <p>F4003 - Recovery Equipment is used on T&amp;E ranges for recovering weapons on or buried in the sea floor. Approximately \$10 million of hardware is recovered each year using these devices.</p> <p>F4004 - The T&amp;E Range Equipment line provides for improvement and modernization of range equipment for YTT (Yard Torpedo Tender) and test crafts; portable tracking range components used at remote sites for testing requirements in different sea-bottom, littoral and cold water environments; and other range systems in support of weapon T&amp;E operations.</p> <p>F4005 - The ASW Target MK 30 Mod 1 provides essential fleet ASW training on the Navy's underwater tracking ranges. The MK 30 Mod 1 is currently used at the BARSTUR - Hawaii, AUTEC- Bahamas, and SCORE. ASW range support funds are used to procure components for the MK 30 that are consumed/expended during fleet in-water runs. These funds are also used to replace obsolete components and improve maintenance and reliability of the targets.</p> <p>F4006 - The stationary target components include the MK 28 Targets, and T&amp;E Targets. MK 28 Targets are used for conducting Service Weapons Test (SWT) on in-service and advanced warshot torpedoes. The SWT is the only test the Navy has to verify the explosive chain of torpedoes. Funding is used to procure target systems and components expended during SWT operations in addition to improvement and modernization projects. The T&amp;E targets include the MK 69, a bottom mounted stationary target, and Over-the-side (OTS), a surface deployed target, used to test various weapon attributes during T&amp;E exercises. These targets are needed to fill specific technical requirements for the MK 48 ADCAP, MK 50 and MK54 torpedo upgrades. Funding is used to procure components that improve operability and maintenance of the target.</p> <p>F4007 - This is a Congressional plus-up to support the Northwest Range Complex that provides the test resources for acceptance testing for USW system acquisition. Funding will provide for upgrade of existing range systems that are required to keep the Range Complex viable. The major systems that require upgrade are: Range Craft and Craft Systems, Fire Control and Instrumentation, and Engineering and display systems.</p> <p>Production Engineering funds support efforts performed by a field activity or contractor during the production phase of these projects.</p>													

P-1 SHOPPING LIST

CLASSIFICATION:

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CLASSIFICATION:

<b>WEAPONS SYSTEM COST ANALYSIS</b> P-5		Weapon System		DATE: <b>February 2004</b>
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b> <b>BA 3 - Torpedoes and Related Equipment</b>		ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD <b>ASW Range Support BLI: 330200 SBHD: 83F4</b>	

COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			Prior Years	FY 2002			FY 2003			FY 2004			FY 2005			
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
N76																
F4001	Pinger Exercise Components							246					256		290	
F4003	Recovery Equipment							41					30		25	
F4004	Test & Evaluation Range Equipment							277					280		246	
F4005	MK 30 Components							217					280		284	
F4006	Stationary Target Components							143					153		158	
F4007	NW Range Upgrade							321					192		0	
F4830	Production Engineering In-House							205					237		249	
F4850	Product Improvement							143					167		171	
F4900	Production Engineering - Contractors							4					11		11	
N77																
F4001	Pinger Exercise Components							1,836					1875		2,152	
F4003	Recovery Equipment							304					221		185	
F4004	Test & Evaluation Range Equipment							2,049					2039		1,856	
F4005	MK30 Components							1,600					2102		2,149	
F4006	Stationary Target Components							1,056					1136		1,178	
F4007	NW Range Upgrade							2,340					1433		0	
F4830	Production Engineering In-House							1,515					1753		1,805	
F4850	Product Improvement							1,053					1239		1,269	
F4900	Production Engineering - Contractors							31					41		42	
N78																
F4001	Pinger Exercise Components							106					157		173	
F4003	Recovery Equipment							18					18		15	
F4004	Test & Evaluation Range Equipment							120					178		147	
F4005	MK 30 Components							1,037					172		172	
F4006	Stationary Target Components							62					95		94	
F4007	NW Range Upgrade							139					125		0	
F4830	Production Engineering In-House							625					151		154	
F4850	Product Improvement							413					105		103	
F4900	Production Engineering - Contractors							20					7		7	
								<b>15,921</b>				<b>14,453</b>				<b>12,935</b>

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<b>WEAPONS SYSTEM COST ANALYSIS</b> P-5		Weapon System		DATE: <b>February 2004</b>
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b> <b>BA 3 - Torpedoes and Related Equipment</b>		ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD <b>ASW Range Support BLI: 330200 SBHD: 83F4</b>	

COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			Prior Years	FY 2003			FY 2004			FY 2005						
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost				
	N76															
F4001	Pinger Exercise Components							246			256					290
F4003	Recovery Equipment							41			30					25
F4004	Test & Evaluation Range Equipment							277			280					246
F4005	MK 30 Components															
F4006	Stationary Target Components							143			153					158
F4007	NW Range Upgrade							321			192					0
F4830	Production Engineering In-House							82			75					84
F4850	Product Improvement							62			61					63
	N77															
F4001	Pinger Exercise Components							1,836			1875					2,152
F4003	Recovery Equipment							304			221					185
F4004	Test & Evaluation Range Equipment							2,049			2,039					1,856
F4005	MK30 Components															
F4006	Stationary Target Components							1,056			1,136					1,178
F4007	NW Range Upgrade							2,340			1,433					0
F4830	Production Engineering In-House							605			558					583
F4850	Product Improvement							457			456					469
	N78															
F4001	Pinger Exercise Components							106			157					173
F4003	Recovery Equipment							18			18					15
F4004	Test & Evaluation Range Equipment							120			178					147
F4005	MK 30 Components															
F4006	Stationary Target Components							62			95					94
F4007	NW Range Upgrade							139			125					0
F4830	Production Engineering In-House							35			47					55
F4850	Product Improvement							27			38					38
F4DEF	DEFERRAL															
	N6															
F4001	Pinger Exercise Components							0			0					0
								<b>10,326</b>				<b>9,423</b>				<b>7,811</b>

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WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System				DATE: July 2003							
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 3 - Torpedoes and Related Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD ASW Range Support BLI: 330200 SBHD: 73F4										
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 2002			FY 2003			FY 2004			FY 2005		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost						
N76															
F4001	Pinger Exercise Components														
F4003	Recovery Equipment														
F4004	Test & Evaluation Range Equipment														
F4005	MK 30 Components							217			280			284	
F4006	Stationary Target Components														
F4830	Production Engineering In-House							123			162			165	
F4850	Product Improvement							81			106			108	
F4900	Production Engineering - Contractors							4			11			11	
N77															
F4001	Pinger Exercise Components														
F4003	Recovery Equipment														
F4004	Test & Evaluation Range Equipment														
F4005	MK30 Components							1,600			2102			2,149	
F4006	Stationary Target Components														
F4007	NW Range Upgrade														
F4830	Production Engineering In-House							910			1195			1,222	
F4850	Product Improvement							596			783			800	
F4900	Production Engineering - Contractors							31			41			42	
N78															
F4001	Pinger Exercise Components														
F4003	Recovery Equipment														
F4004	Test & Evaluation Range Equipment														
F4005	MK 30 Components							1,037			172			172	
F4006	Stationary Target Components														
F4830	Production Engineering In-House							590			104			99	
F4850	Product Improvement							386			67			65	
F4900	Production Engineering - Contractors							20			7			7	
N6															
F4005	MK30 Components							0			0			0	
<b>SUBTOTAL</b>								<b>5,595</b>			<b>5,030</b>			<b>5,124</b>	
<b>TOTAL</b>								<b>15,921</b>			<b>14,453</b>			<b>12,935</b>	

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<b>BUDGET ITEM JUSTIFICATION SHEET</b>					DATE:		
<b>P-40</b>					February 2004		
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b> <b>BA - 3 Torpedoes and Related Equipment</b>				P-1 ITEM NOMENCLATURE <div style="text-align: center;"><b>BLI 2410</b></div> <b>FIRST DESTINATION TRANSPORTATION (FDT) / 93TA</b>			
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
COST (In Millions)	2.7	2.8	3.1	3.2	3.3	3.3	3.4
<p>First Destination Transportation (FDT) provides for the movement of newly procured equipment and material from the contractor's plant to the initial point of receipt for subsequent shipment to its destination.</p>							

WEAPONS SYSTEM COST ANALYSIS

DATE:  
February 2004

P-5

APPROPRIATION/BUDGET ACTIVITY  
Weapons Procurement, Navy  
BA 3 Torpedoes and Related Equipment

COST CODE	ELEMENT OF COST	IDENT CODE	TOTAL COST IN THOUSANDS OF DOLLARS														
			FY 2003		FY 2004		FY 2005										
			QTY	COST	QTY	COST	QTY	COST									
TA001	First Destination Transportation			2,698		2,755		3,123									

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET										DATE:			
P-40										February 2004			
APPROPRIATION/BUDGET ACTIVITY								P-1 ITEM NOMENCLATURE/LINE ITEM #					
WEAPONS PROCUREMENT, NAVY								SMALL ARMS AND WEAPONS - BLI #412900					
BA-4: OTHER WEAPONS								24E3					
Program Element for Code B Items:								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		To Complete	Total
QUANTITY													0
EQUIPMENT COST (In Millions)	N/A			\$9.7	\$4.2	\$2.2	\$6.9	\$2.2	\$2.2	\$2.2			\$29.6
SPARES COST (In Millions)													0
<b>PROGRAM DESCRIPTION/JUSTIFICATION:</b>													
<p>Quantities of weapons procured with the above funding are to meet small arms allowances and inventory objectives. This line item provides for initial issue procurement, modernization, standardization and stock replenishment procurement of a wide variety of small arms and weapons (caliber .50 and below), including required gun mounts and associated support components. The line also provides for procurement of sufficient types and quantities of weapons to support training, security afloat and shore missions of approximately 2,495 ship/ashore activities Navy-wide.</p> <p>This line item procures M240/Mk-46/Mk-19/.50 Cal Machines guns, Mk-82 Sniper Rifles, M16A3 Rifles, M727 Carbines, 12 Gauge Shotguns, M11 Pistols, Mk-82/93/95/97 Mounts, and other related equipment for Naval Mobile Construction Batalions, Naval Construction Force Support Units, Construction Battalion Maintenance Units and Mobile Security Force. This line item also procures .50 Cal Machine Guns and Mounts for the DDG AT/FP Improvement Program.</p>													
				<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>							
<b>Funding Totals</b>				<b>\$9,710</b>	<b>\$4,208</b>	<b>\$2,195</b>							

**UNCLASSIFIED**



**CLASSIFICATION: Unclassified**

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)								DATE: FEB 2004	
APPROPRIATION: WEAPONS PROCUREMENT, NAVY BA-4: OTHER WEAPONS				P-1 ITEM NOMENCLATURE: SMALL ARMS AND WEAPONS					
Program Element for Code B Items:				Other Related Program Elements				SUBHEAD 24E3	
Cost Code	ELEMENT OF COST	FY 2003		FY 2004		FY 2005		QTY	TOT COST
		QTY	TOT COST	QTY	TOT COST	QTY	TOT COST		
E3001	SMALL ARMS AND WEAPONS								
	M240 MACHINE GUN	153	1,464	225	1,891				
	MK46 MACHINE GUN								
	12 GAUGE SHOT GUN	517	150	100	28				
	M11 PISTOL			200	135				
	MK93 MOUNT			304	1,168	100	300		
	MK82 MOUNT	40	58	133	200				
	MK95 MOUNT	390	2,206	106	583				
	MK97 MOUNT			225	135				
	MK27 CARBINE					568	395		
	MK105 MOUNT	200	58	225	68				
	MK44 MACHINE GUN	90	2,790						
	M2HB MG	473	2,364			300	1,500		
	EX45 MOUNT	1	370						
	STAB MOUNT	1	250						
	TOTAL SHIP ESTIMATE		9,710		4,208		2,195		
	NET P-1 LINE ITEM		9,710		4,208		2,195		

P-1 Shopping List

**CLASSIFICATION:  
Unclassified**

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: <b>February 2004</b>				
APPROPRIATION/BUDGET ACTIVITY <b>WEAPONS PROCUREMENT, NAVY BA-4: OTHER WEAPONS</b>							P-1 ITEM NOMENCLATURE <b>Coast Guard Weapons/BLI 420600</b>					
Program Element for Code B Items:							Other Related Program Elements					
	FY2001 and Prior	ID Code	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY2009	To Complete	Total
QUANTITY												
COST (In Millions)				\$0.0	\$0.0	\$5.3	\$5.3	\$5.3	\$5.3	\$5.3	CONT.	CONT.
SPARES COST (In Millions)												
<b>MISSION DESCRIPTION AND BUDGET JUSTIFICATION:</b>												
<p>The Coast Guard Weapons line funds the Coast Guard requirement for Combat System Suites for new construction ships under the Coast Guard Integrated Deepwater System Replacement Project. Under inter-service agreement (delineated in OPNAVINST 4000.79A), DON provides the combat, detection, and electronic systems required for the Coast Guard to integrate with the Navy in times of war and conflict. Ship Construction costs are funded under the Department of Transportation appropriation.</p> <p>Combat System Suite procured must complement and integrate with future Navy Combat Systems. The suite is an appropriate balance of equipment to ensure the Coast Guard is prepared to accomplish its assigned Naval Warfare Tasks in concert with U.S. Navy units. The Combat Systems Suite will be aligned with future Naval ship building programs to support commonality among the two Services' systems and meet National Fleet objectives.</p> <p>The Deepwater Combat Suites will include the following:</p> <p style="padding-left: 40px;">Weapons Systems - Provides gun, missile and fire control systems to engage surface and air threats, including the capability to fire warning shots, disabling fire and achieve mission kill against anticipated threats. Also included is system capability to identify friendly forces.</p>												

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System						DATE: February 2004					
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA-4: OTHER WEAPONS						ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD COAST GUARD WEAPONS BLI: 420600						SUBHEAD A4CG			
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS														
			FY 2003			FY 2004			FY 2005								
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
CG001	DEEP WATER Combat Suites Weapons Systems																5,349
<b>5,349</b>																	

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System	A. DATE <b>February 2004</b>
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B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-4: OTHER WEAPONS</b>	C. P-1 ITEM NOMENCLATURE <b>COAST GUARD WEAPONS BLI: 420600</b>	SUBHEAD <b>A4CG</b>
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Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>FISCAL YEAR (05)</b>  <b>CG001</b> <b>DEEP WATER Combat Suites</b>	TBD		TBD	TBD	TBD	TBD	TBD			

D. REMARKS

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 2004																									
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-4: Other Weapons</b>							P-1 ITEM NOMENCLATURE <b>Airborne Mine Neutralization System/422500/74AM</b>																										
Program Element for Code B Items: <b>0604373N Airborne Mine Countermeasures</b>							Other Related Program Elements <b>0204302N</b>																										
	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total																					
QUANTITY																																	
COST (In Millions)		B		\$0.7	\$0.0	\$0.0	\$13.3	\$31.6	\$23.5	\$34.4	CONT.	CONT.																					
SPARES COST (In Millions)				\$0.0	\$0.0	\$0.0	\$1.2	\$3.5	\$3.4	\$3.6	CONT.	CONT.																					
<p><b>PROGRAM DESCRIPTION/JUSTIFICATION:</b>                      Airborne Mine Countermeasures (AMCM) Equipment is currently used by MH-53E helicopters to counter the threat of sea mines. The MH-60S helicopter will be adapted for the AMCM mission in support of the development of an Organic Fleet AMCM program. The equipment is divided into two broad categories -- minesweeping and minehunting. (1) Minesweeping is performed by mechanical or influence sweeps. In mechanical sweeping, the mine mooring is severed by the sweep gear allowing the mine to float to the surface where it is destroyed. In influence sweeping, a magnetic or acoustic field which simulates the magnetic/acoustic signature of a ship is introduced into the water. This field causes the mine mechanism to actuate. (2) In mine hunting, the object is to actually locate and classify minelike objects (usually by means of high resolution sonar) and mark or neutralize mines using explosive devices. AMCM squadrons currently have mechanical, magnetic, and acoustic sweeping capabilities, and mine surveillance and marking capabilities. Their mission is to locate, classify and neutralize moored and bottom mines.</p> <p>Airborne Mine Neutralization System (AMNS) is composed of the following major subsystems and components:</p> <table border="0"> <tr> <td><u>MH-53E</u></td> <td><u>MH-60S</u></td> </tr> <tr> <td>(a) Operator Control Console</td> <td>Launched Handling Sub-system</td> </tr> <tr> <td>(b) Winch Mod Kit</td> <td>Neutralizer Sub-system</td> </tr> <tr> <td>(c) In water assembly</td> <td>Software</td> </tr> <tr> <td>(d) Neutralizer</td> <td></td> </tr> <tr> <td>(e) Launched stowage assembly</td> <td></td> </tr> <tr> <td>(f) Davit Sheave assembly</td> <td></td> </tr> <tr> <td>(g) Software</td> <td></td> </tr> </table> <p>AMNS procurements will be funded by: OPN for the AMNS combat system. WPN for AMNS neutralizer program.</p> <p>Rapid Airborne Mine Clearance System (RAMICS) MIW program will satisfy the U.S. Navy's need for rapid mine clearance capability required to neutralize near-surface and surface (floating) moored sea mines. RAMICS will use geo-location data provided by other minehunting and mine reconnaissance systems, use a laser system to reacquire targets and to direct the fire of supercavitating projectiles that will render the mines inoperable. RAMICS includes the following major subsystems and components:</p> <table border="0"> <tr> <td>(a) Gun Subsystem</td> </tr> <tr> <td>(b) MK258 Mod 1 ammunition</td> </tr> <tr> <td>(c) Targeting Sensor Subsystem</td> </tr> <tr> <td>(d) Fire Control Subsystem</td> </tr> <tr> <td>(e) Software</td> </tr> </table> <p>The system will be deployed from the MH-60S helicopter and will provide organic airborne mine defense for Carrier Strike Groups (CSG) and Expeditionary Strike Groups (ESG). This capability will be of critical importance in littoral zones, confined straits, choke points, and the Amphibious Objective area (AOA).</p> <p>RAMICS procurements will be funded by: WPN for the RAMICS combat system. PANMC for RAMICS projectile ammunition program.</p>													<u>MH-53E</u>	<u>MH-60S</u>	(a) Operator Control Console	Launched Handling Sub-system	(b) Winch Mod Kit	Neutralizer Sub-system	(c) In water assembly	Software	(d) Neutralizer		(e) Launched stowage assembly		(f) Davit Sheave assembly		(g) Software		(a) Gun Subsystem	(b) MK258 Mod 1 ammunition	(c) Targeting Sensor Subsystem	(d) Fire Control Subsystem	(e) Software
<u>MH-53E</u>	<u>MH-60S</u>																																
(a) Operator Control Console	Launched Handling Sub-system																																
(b) Winch Mod Kit	Neutralizer Sub-system																																
(c) In water assembly	Software																																
(d) Neutralizer																																	
(e) Launched stowage assembly																																	
(f) Davit Sheave assembly																																	
(g) Software																																	
(a) Gun Subsystem																																	
(b) MK258 Mod 1 ammunition																																	
(c) Targeting Sensor Subsystem																																	
(d) Fire Control Subsystem																																	
(e) Software																																	

CLASSIFICATION:

**UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System						DATE: February 2004					
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy				BA-4: Other Weapons						ID Code B			P-1 ITEM NOMENCLATURE/SUBHEAD Airborne Mine Neutralization System/422500/74AM		
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 2002			FY 2003			FY 2004			FY 2005		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
AM065	<u>Unit Cost - AMNS Neutralizer</u>	B					15	48.00	720						
<b>Subtotal</b>									<b>720</b>				<b>0</b>		<b>0</b>

**UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: <b>February 2004</b>		
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA-4: OTHER WEASONS</b>							P-1 ITEM NOMENCLATURE <b>MK-15 CLOSE-IN WEAPON SYSTEM (CIWS) MODS BLI 420500 SUBHEAD: A4DT</b>					
Program Element for Code B Items:							Other Related Program Elements					
	FY 2002 and Prior	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		To Complete	Total Program
QUANTITY	32	A	9	10	19	53	30	64	40		0	257
COST (M\$)	105.8	A	57.5	49.1	86.1	231.9	146.2	363.4	275.2		30.9	1346.2
Initial Spares (M\$)			0.3	0.2								
<p>JUSTIFICATION: PHALANX CLOSE-IN WEAPON SYSTEM (CIWS) is a high rate weapon system that automatically acquires, tracks and destroys Anti Ship Missiles (ASMS) that have penetrated all other Ship's defenses.</p> <p>CIWS BLOCK 1B: This line is an upgrade/conversion to CIWS incorporating a stabilized Thermal Imager and an Automatic Acquisition Video Tracker that provides the additional capability to engage small, high speed, maneuvering surface craft and low, slow aircraft and helicopters. The Thermal Imager also improves performance against Anti-ship Cruise Missiles by providing more accurate angle tracking information to the fire control computer. CIWS Block 1B is scheduled to be installed on the following ship classes: CGs, CVNs, DDGs, FFGs, LCCs, LHAs, LHDs, LPDs, LSDs, WMECs, and trainers. The installations will be completed during a limited availability by shipalt/AIT.</p> <p>BLOCK 1B unique SPARES are included as part of the CIWS 1B Procurement through FY03.</p> <p>EQUIPMENT INSTALLATION: Funding is for the installation of equipment including fleet modernization program installs and installation of equipment at shore facilities.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

CLASSIFICATION: UNCLASSIFIED

February 2004

P3A INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED: PHALANX CIWS BLOCK I TYPE MODIFICATION: UPGRADE/CONVERSION MODIFICATION TITLE: UPGRADE/CONVERSION TO BLOCK IB

DESCRIPTION/JUSTIFICATION:

THE BLOCK IB SURFACE MODE MOUNT INCLUDES THE ADDITION OF A THERMAL IMAGER, AN AUTOMATIC ACQUISITION VIDEO TRACKER AND STABILIZATION SYSTEM FOR THE TRACKER.  
THE UPGRADE IS ESSENTIAL TO PROVIDE THE FLEET CAPABILITY AGAINST SMALL HIGH SPEED SURFACE THREATS AND LOW SLOW SPEED AIR THREATS.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: COMPLETE

	FY 2002 & Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																					
<i>RDT&amp;E</i>		40.300																		40.300	
<i>PROCUREMENT</i>																					
CIWS BLOCK IB PROCUREMENT	30	61.806	9	23.832	10	21.596	19	38.187	53	119.094	30	75.412	64	164.225	40	178.812		0	0.000	255	682.964
CIWS BLOCK IB CONVERSION/UPGRA	26	26.003	13	25.527	10	0.250	19	35.099	53	99.473	30	57.263	64	124.360	40	79.124		0	0.000	255	447.099
CIWS BLOCK IB INSTALLATION	11	3.334	4	0.932	11	2.251	8	2.330	15	4.176	19	6.224	48	13.393	35	9.718		104	29.501	255	71.859
TRAINER PROCUREMENT	2	4.200	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000		0	0.000	2	4.200
TRAINER UPGRADE/CONVERSION/	2	1.948	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000		0	0.000	2	1.948
TRAINER INSTALLATION	1	0.050	0	0.000	1	0.080	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000		0	0.000	2	0.130
OTHER (GRAY RADOMES)	60	0.407	60	0.484	60	0.491	60	0.498										0	0.000	240	1.880
PRODUCTION ENGINEERING SUPPOR		6.826		2.923		22.938		8.119		5.839		4.706		58.417		5.191			0.000	0	114.959
DSA SERVICES		1.186		3.841		1.474		1.895		3.346		2.630		3.026		2.391			1.405	0	21.194
<b>TOTAL PROCUREMENT</b>		105.760		57.539		49.080		86.128		231.928		146.235		363.421		275.236			30.906	257	1346.233

CLASSIFICATION: UNCLASSIFIED

P3A (Continued) INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: PHALANX CIWS BLOCK I MODIFICATION TITLE: UPGRADE AND CONVERSION TO BLOCK IB

INSTALLATION INFORMATION:  
 METHOD OF IMPLEMENTATION: **Block IB Surface Mode will be accomplished through upgrade/conversion by OEM.**

ADMINISTRATIVE LEAD-TIME: 6 MONTHS PRODUCTION LEADTIME 22 MONTHS  
 CONTRACT DATES: FY 2003: APR 2003 FY 2004: JUN 2004 FY 2005: JAN 2005 FY 2006: JAN 2006  
 DELIVERY DATE: FY 2003: FEB 2005 FY 2004: APR 2006 FY 2005: NOV 2006 FY 2006: NOV 2007

(\$ in Millions)

Cost:	FY 2002 & Prior		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY2002 & PRIOR YEAR	11	4.520	4	0.932	11	2.251	4	1.165											30	8.868	
FY 2003 EQUIPMENT				3.841			4	1.165	5	1.392									9	6.398	
FY 2004 EQUIPMENT						1.474			10	2.784									10	4.258	
FY 2005 EQUIPMENT								1.895			19	6.224							19	8.119	
FY 2006 EQUIPMENT										3.346			48	13.393	5	1.388			53	18.127	
FY 2007 EQUIPMENT											2.630				30	8.330			30	10.960	
FY 2008 EQUIPMENT													3.026					64	18.150	64	21.176
FY 2009 EQUIPMENT															2.391			40	12.756	40	15.147
TO COMPLETE																				0	0.000
<b>TOTAL</b>	<b>11</b>	<b>4.520</b>	<b>4</b>	<b>4.773</b>	<b>11</b>	<b>3.725</b>	<b>8</b>	<b>4.225</b>	<b>15</b>	<b>7.522</b>	<b>19</b>	<b>8.854</b>	<b>48</b>	<b>16.419</b>	<b>35</b>	<b>12.109</b>		<b>104</b>	<b>30.906</b>	<b>255</b>	<b>93.053</b>

INSTALLATION SCHEDULE: Input=DELIVERY FROM OEM, Output=INSTALLATION ON SHIPS

	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				TC	TOTAL
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
In	11	0	1	0	4	5	4	1	0	3	1	3	3	3	0	6	6	12	5	0	4	12	12	12	12	12	12	7	6		98	255		
Out	11	0	1	0	3	1	5	4	1	2	4	0	2	4	2	3	6	10	8	0	1	11	12	12	13	11	12	8	4		104	255		

P-3A

CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>	<b>DATE:</b>
<b>P-40</b>	<b>February 2004</b>

APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy / BA-4: OTHER WEAPONS</b>	P-1 ITEM NOMENCLATURE <b>BLI: 4217 GUN MOUNT MODS</b>
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Program Element for Code B Items:	Other Related Program Elements
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	2001 and Prior Years	ID Code	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Program
QUANTITY												0
COST (\$M)	\$0.0			\$11.4	\$48.9	\$25.9	\$87.8	\$14.5	\$14.2	\$17.6	<b>CONT</b>	<b>CONT</b>
Initial Spares (\$M)												

Note: FY 03 reported under BLI 421000, 5"/54 Gun Mount Mods.

E5001 - 5" GUN MOUNT MODS: This element procures gun safety and shock hardening ORDALTs for 5" MK 45 gun mounts.

E5002 - MINOR CALIBER MODS: This element procures ORDALTs and miscellaneous equipment required to improve safety and reliability for the 25MM MK 38 Machine Gun System and all other minor caliber ordnance much of which is outdated and difficult to support. It provides initial fill kits and replacement of surveyed and outdated minor caliber ordnance for active ships. This element also procures MK 11 saluting mounts and related components.

E5003 - 76MM GUN MOUNT MODS: This element procures safety/shock ORDALTs for 76MM MK 75 gun mounts. These ORDALTs will provide safety improvements for USN FFG 7 Class ships, USCG WMEC 270, and USCG WHEC 378 cutters.

E5004 - MK 45 MOD 4: This element procures modification kits to upgrade Mk 45 Mods 1 and 2 to Mod 4 configuration which includes Shock Test Rest requirements as well as the backfit of Extended Range Guided Munitions (ERGM) handling/loading capability on DDGs and land based units.

E5006 - MK 38 GUN: This element procures MK 38 Gun Mounts.

E5007 - Force Protection Weapons: This element procures Force Protection Weapons.

**UNCLASSIFIED**

CLASSIFICATION:

**UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System									DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-4				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD <b>GUN MOUNT MODS/4217 (14E5)</b>											
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			2001 and Prior Years	FY 2002			FY 2003			FY 2004			FY 2005			
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
E5001	5" Gun Mount Mods		0						5,062				1,348			6,657
E5002	Minor Caliber Mods		0						1,946				1,645			859
E5003	76MM Gun Mount Mods		0						2,590				0			0
E5004	MK 45 MOD 4		0						1,800				34,434			5,292
E5006	MK 38 Gun		0						0	8	1,434.00	11,470	10	1,305	13,050	
			<b>0</b>						<b>11,398</b>				<b>48,897</b>			<b>25,858</b>

**UNCLASSIFIED**

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE <b>February 2004</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-4</b>					C. P-1 ITEM NOMENCLATURE <b>GUN MOUNT MODS/4217 (14E5)</b>				SUBHEAD <b>14E5</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b>MK 38 Gun</b>										
FY2003										
FY2004	8	1.4	TBD	TBD	FFP	TBD	TBD	TBD	NO	N/A
FY2005	10	1.3	TBD	TBD	FFP	TBD	TBD	TBD	NO	N/A
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: MK 38 MOD 2 TYPE MODIFICATION: WPNS PROCUREMENT MODIFICATION TITLE: STABILIZED GUN SYS PROCURE

DESCRIPTION/JUSTIFICATION:  
Procure stabilized, remote control kits for MK 38 MOD 2 Machine Gun Systems for installation on Surface Combat/Amphibs to meet new Force Protection/Antiterrorism requirements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	<u>FY 2002 &amp; Prior</u>		<u>FY 2003</u>		<u>FY 2004</u>		<u>FY 2005</u>		<u>FY 2006</u>		<u>FY 2007</u>		<u>FY 2008</u>		<u>FY 2009</u>		<u>TC</u>		<u>TOTAL</u>		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<b><u>FINANCIAL PLAN (IN MILLIONS)</u></b>																					
<i><u>RD&amp;E</u></i>																					0.00
<i><u>PROCUREMENT</u></i>																					
INSTALLATION KITS	0	0.00	0	0.00	8	8.00	10	10.00	62	59.83	2	2.00	2	2.00	1	1.00				85	82.83
INSTALLATION KITS - UNIT COST						1.00		1.00		0.97		1.00		1.00		1.00					0.00
INSTALLATION KITS NONRECURRING																					0.00
EQUIPMENT																					0.00
EQUIPMENT NONRECURRING																					0.00
ENGINEERING CHANGE ORDERS										0.8		0.2		0.2		0.2					1.36
DATA																					0.00
TRAINING EQUIPMENT																					0.00
SUPPORT EQUIPMENT																					0.00
PRODUCTION SUPPORT																					0.00
OTHER (ILS/TEST SUPPORT)						1.0															0.00
OTHER (CSS)																					0.00
INTERIM CONTRACTOR SUPPORT						0.1															0.07
INSTALL COST					8	2.40	10	3.05	62	18.60	2	0.60	2	0.60	1	0.30	0	0.00		85	25.55
TOTAL PROCUREMENT	0	0.00	0	0.00	0	11.47	0	13.05	0	79.23	0	2.80	0	2.80	0	1.46		0.00			109.81

CLASSIFICATION: UNCLASSIFIED

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

MODELS OF SYSTEMS AFFECTED: MK 38 MOD 2 MODIFICATION TITLE: STABILIZED GUN SYS PROCUREMENT

INSTALLATION INFORMATION: ALTERATION INSTALLATION TEAM (AIT)

METHOD OF IMPLEMENTATION: \_\_\_\_\_

ADMINISTRATIVE LEADTIME: \_\_\_\_\_

PRODUCTION LEADTIME: \_\_\_\_\_

CONTRACT DATES: FY 2002: N/A

FY 2003: N/A

FY 2004: N/A

DELIVERY DATE: FY 2002: N/A

FY 2003: N/A

FY 2004: N/A

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																					
FY 2003 EQUIPMENT																					
FY 2004 EQUIPMENT					8	2.40														8	2.40
FY 2005 EQUIPMENT							10	3.05												10	3.05
FY 2006 EQUIPMENT									62	18.60										62	18.60
FY 2007 EQUIPMENT											2	0.60								2	0.60
FY 2008 EQUIPMENT													2	0.60						2	0.60
FY 2009 EQUIPMENT															1	0.3				1	0.30
TO COMPLETE																					

INSTALLATION SCHEDULE:

	FY 2001 & Prior	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				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						
In	0	0	0	0	0	0	0	0	0	0	0	4	4	2	2	2	4	15	15	15	17	0	0	2	0	0	0	2	0	0	0	1	0	0	0	0	0	0	85
Out	0	0	0	0	0	0	0	0	0	0	0	0	1	4	4	4	4	15	15	15	17	0	0	2	0	0	0	2	0	0	0	1	0	1	85				

P-3A

CLASSIFICATION: UNCLASSIFIED

P3A <b>INDIVIDUAL MODIFICATION</b>																					
MODELS OF SYSTEM AFFECTED:		<u>MINOR CAL MODS</u>				TYPE MODIFICATION:				<u>WPNS PROCUREMENT</u>				MODIFICATION TITLE:				<u>ORDALT/SYS UPGRADE PROCURE</u>			
DESCRIPTION/JUSTIFICATION:																					
Procure ORDALTs and miscellaneous equipment required to improve safety and reliability of the unstabilized 25MM MK 38 Machine Gun System; procure stabilized minor caliber platforms for testing and shipboard integration; and to support all other minor caliber ordnance much of which is outdated and difficult to support; provide initial fill kits and replacement of surveyed and outdated minor caliber ordnance for active ships; and procure/support MK 11 saluting mounts and related components.																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																					
		<u>FY 2002 &amp; Prior</u>		<u>FY 2003</u>		<u>FY 2004</u>		<u>FY 2005</u>		<u>FY 2006</u>		<u>FY 2007</u>		<u>FY 2008</u>		<u>FY 2009</u>		<u>TC</u>		<u>TOTAL</u>	
		<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>
<b>FINANCIAL PLAN (IN MILLIONS)</b>																					
<i>RDT&amp;E</i>																					
<i>PROCUREMENT</i>																					
INSTALLATION KITS	0		0		20	0.43	36	0.79	30	0.70	16	0.34	19	0.46	29	0.73				150	3.45
INSTALLATION KITS - UNIT COST					0.02		0.02		0.02		0.02		0.02		0.03						0.00
INSTALLATION KITS NONRECURRING																					0.00
EQUIPMENT																					0.00
EQUIPMENT NONRECURRING																					0.00
ENGINEERING CHANGE ORDERS																					0.00
DATA																					0.00
TRAINING EQUIPMENT																					0.00
SUPPORT EQUIPMENT																					0.00
PRODUCTION SUPPORT																					0.00
OTHER (ILS/TEST SUPPORT)					3	1.0															0.99
OTHER (CSS)																					0.00
INTERIM CONTRACTOR SUPPORT																					0.00
INSTALL COST	70	1.12	121	1.94	13	0.22	43	0.07	32	0.05	16	0.03	17	0.03	32	0.06	0	0.00		344	3.52
TOTAL PROCUREMENT	0	1.12	0	1.94	0	1.64	0	0.86	0	0.75	0	0.37	0	0.49	0	0.79		0.00			7.95

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: Minor Cal Mods

MODIFICATION TITLE: PROCUREMENT

INSTALLATION INFORMATION: ALTERATION INSTALLATION TEAM (AIT)

METHOD OF IMPLEMENTATION: \_\_\_\_\_

ADMINISTRATIVE LEADTIME: \_\_\_\_\_

PRODUCTION LEADTIME: \_\_\_\_\_

CONTRACT DATES: FY 2002: N/A

FY 2003: N/A

FY 2004: N/A

DELIVERY DATE: FY 2002: N/A

FY 2003: N/A

FY 2004: N/A

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																					
FY 2003 EQUIPMENT			121	1.94																121	1.94
FY 2004 EQUIPMENT					13	0.22														13	0.22
FY 2005 EQUIPMENT							43	0.07												43	0.07
FY 2006 EQUIPMENT									32	0.05										32	0.05
FY 2007 EQUIPMENT											16	0.03								16	0.03
FY 2008 EQUIPMENT													17	0.03						17	0.03
FY 2009 EQUIPMENT															32	0.06				32	0.06
TO COMPLETE																					

INSTALLATION SCHEDULE:

	FY 2001 & Prior	FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				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		
In	0	17	17	18	18	30	30	30	31	3	3	3	4	10	11	11	11	8	8	8	8	4	4	4	4	4	4	4	5	8	8	8	8	0	344
Out	0	17	17	18	18	30	30	30	31	3	3	3	4	10	11	11	11	8	8	8	8	4	4	4	4	4	4	4	5	8	8	8	8	0	344

CLASSIFICATION: UNCLASSIFIED

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: MK 45 MOD 4 TYPE MODIFICATION: WPNS PROCUREMENT MODIFICATION TITLE: E5004 - MK 45 MOD 4

DESCRIPTION/JUSTIFICATION:  
 This element procures modification kits for Mod 4 configuration which includes Shock Test Rest requirements as well as the backfit of Extended Range Guided Munitions (ERGM) handling/loading capability on DDGs and land based units.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	QTY	Prior	FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		FY 2010		FY 2011		TC	TOTAL		
		\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$		
<b>FINANCIAL PLAN (IN MILLIONS)</b>																						
<i>RDT&amp;E</i>																					0	0.00
<i>PROCUREMENT</i>																					0	0.00
INSTALLATION KITS	9	1.8	37	28.78	17	3.82	17	3.45	24	5.35	24	5.35	44	7.96	32	5.86					204	62.36
INSTALLATION KITS - UNIT COST																					0	0.00
INSTALLATION KITS NONRECURRING																					0	0.00
EQUIPMENT																					0	0.00
EQUIPMENT NONRECURRING																					0	0.00
ENGINEERING CHANGE ORDERS																					0	0.00
DATA																					0	0.00
TRAINING EQUIPMENT																					0	0.00
SUPPORT EQUIPMENT																					0	0.00
PRODUCTION SUPPORT																					0	0.00
OTHER (ILS/TEST SUPPORT)																					0	0.00
OTHER (CSS)																					0	0.00
INTERIM CONTRACTOR SUPPORT																					0	0.00
INSTALL COST	9		12	5.65	14	1.47	20	1.18	19	1.86	19	1.81	32	3.14	47	3.96	41	3.52			213	22.60
TOTAL PROCUREMENT	9	1.80	49	34.43	31	5.29	37	4.63	43	7.21	43	7.16	76	11.10	79	9.82	41	3.52	0	0.00	408	84.96



<b>BUDGET ITEM JUSTIFICATION SHEET</b>							DATE:					
<b>P-40</b>							<b>February 2004</b>					
APPROPRIATION/BUDGET ACTIVITY <b>WEAPONS PROCUREMENT, NAVY</b>							P-1 ITEM NOMENCLATURE <b>422200 J4PN PIONEER PROGRAM</b>					
Program Element for Code B Items:							Other Related Program Elements <b>0305204N (A4012) Tactical Unmanned Aerial Vehicles</b>					
	Prior Years	ID Code		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QUANTITY												
COST (In Millions)			N/A	8.828	10.062	8.775	1.949	1.950	1.989	2.030		35.583

The Pioneer Unmanned Aerial Vehicle (UAV) provides near real-time reconnaissance, surveillance, target acquisition, combat assessment and battlefield management within LOS of a Ground Control Station (GCS) in limited weather, both day and night. Deployments around the world have supported numerous joint military operations and contingencies including Bosnia Herzegovina, Somalia, the Adriatic, Persian Gulf operations, DESERT SHIELD and DESERT STORM and OPERATION IRAQI FREEDOM (OIF). During OIF both Marine Pioneer VMU systems were deployed and flew a total of 2357.3 hours in support of combat operations. The VMUs are preparing for future extended deployments. To date, the system has flown in excess of 26,000 flight hours.

The Pioneer Program addresses the critical issues facing the Pioneer system; obsolescence, and mobility. The acquisition strategy uses an ECP approach, focusing on the most urgent user needs. The mobility enhancements consist of down-sized trailer-mounted launchers, HMMWV-mounted GCS, and UAV transport trailers for improved mobility in -theater via C-130 aircraft. To meet the payload shortfall, the Pioneer Program will procure additional Army Shadow TUAV Plug-in Optronic Payloads (POP) 200. A new engine is also planned to replace the current engine that has shown reliability issues and is increasingly difficult to sustain due to limited spares.

Pioneer is fielded with two operational systems which support USMC land based operations. A third system supports training requirements and the fourth supports test and evaluation.

Each operational systems consists of: Five air vehicles that have electro-optical (EO) and infrared (IR) payloads; One GCS; One portable control station; One tracking and communications unit; One to four remote receiving stations.



CLASSIFICATION:

**UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System				DATE: <b>February 2004</b>			
APPROPRIATION/BUDGET ACTIVITY <b>WEAPONS PROCUREMENT, NAVY</b>				ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD <b>422200 J4PN PIONEER PROGRAM</b>					

COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			Prior Years	FY 2003			FY 2004			FY 2005						
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
	<u>PIONEER PROGRAM</u>															
	Transportability															
	- Launchers					2	1.000	2.000								
	- Trailers					6	0.150	0.900								
	-Man-packable Receiver Systems (MRS)					2	0.100	0.200								
	Air Vehicle Upgrades															
	-MIAG w Adapters								10	0.185	1.850					
	- A/V Wiring Harness								5	0.022	0.110					
	- Transponders					20	0.007	0.140								
	- A/V Components								10	0.133	1.330					
	Payloads					20	0.220	4.438	20	0.160	3.200					
	Engines								20	0.050	1.000	12	0.050	0.600		
	Ground Control Station											2	3.000	6.000		
	Replacement Modular Integrated Avionics Group (MIAG)								8	0.200	1.600	7	0.200	1.400		
PN830	Production Engineering										1.150			0.772		0.575
PN800	Integrated Logistics Support										0.000			0.200		0.200
						0		0			8.828			10.062		8.775

**UNCLASSIFIED**

# UNCLASSIFIED

CLASSIFICATION:

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE <b>February 2004</b>		
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE					SUBHEAD
<b>WEAPONS PROCUREMENT, NAVY</b>					<b>422200 PIONEER PROGRAM</b>					<b>J4PN</b>
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	TECH DATA AVAILABLE NOW ?	DATE REVISIONS AVAILABLE
<u>FY2003</u>										
Transportability										
Launchers	2	1.000	NAVAIR	4/03	Fixed Price	PUI, Hunt Valley, MD	6/03	6/04		
Trailers	6	0.150	NAVAIR	4/03	Fixed Price	PUI, Hunt Valley, MD	6/03	6/04		
MRS	2	0.100	NAVAIR	4/03	Fixed Price	PUI, Hunt Valley, MD	6/03	8/03		
Payloads	20	0.220	NAVAIR	11/02	Fixed Price	PUI, Hunt Valley, MD	1/03	3/03		
Transponders	20	0.007	NAVAIR	4/03	Fixed Price	PUI, Hunt Valley, MD	6/03	6/04		
<u>FY 2004</u>										
MIAG w/Adapter	10	0.185	NAVAIR	12/03	Fixed Price	PUI, Hunt Valley, MD	2/04	2/05		
A/V Wiring Harness	5	0.022	NAVAIR	12/03	Fixed Price	PUI, Hunt Valley, MD	2/04	2/05		
Engines	20	0.050	NAVAIR	4/04	Fixed Price	PUI, Hunt Valley, MD	6/04	9/04		
Replacement MIAG	8	0.200	NAVAIR	4/04	Fixed Price	PUI, Hunt Valley, MD	6/04	6/05		
A/V Components	10	1.330	NAVAIR	12/03	Fixed Price	PUI, Hunt Valley, MD	2/04	2/05		
Payloads	20	0.220	NAVAIR	12/03	Fixed Price	PUI, Hunt Valley, MD	2/04	4/04		
<u>FY2005</u>										
Ground Control Station	2	6.000	NAVAIR	11/04	Fixed Price	PUI, Hunt Valley, MD	1/05	1/06		
Engines	12	0.050	NAVAIR	11/04	Fixed Price	PUI, Hunt Valley, MD	1/05	4/05		
Replacement MIAG	7	0.200	NAVAIR	11/04	Fixed Price	PUI, Hunt Valley, MD	1/05	1/06		
D. REMARKS										







APPROPRIATION/BUDGET ACTIVITY Weapon System  
**WEAPONS PROCUREMENT, NAVY** P-1 ITEM NOMENCLATURE  
**422200 PIONEER PROGRAM**

Item	Manufacturer's Name and Location	Production Rate			Procurement Leadtimes					Unit of Measure
		MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	
Ground Control Station	PUI, Hunt Valley, MD						12			
Engines	PUI, Hunt Valley, MD						3			
Replacement MAIG	PUI, Hunt Valley, MD						12			

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2006												FISCAL YEAR 2007												BAL
						CALENDAR YEAR 2006												CALENDAR YEAR 2007												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
Ground Control Station	2005		2	0	2				1	1																		0		
Engines	2005		12	12	0																							0		
Replacement MAIG	2005		7	0	7				2	2	2	1																0		

ITEM / MANUFACTURER	FY	SVC	QTY	DEL	BAL	FISCAL YEAR 2008												FISCAL YEAR 2009												BAL
						CALENDAR YEAR 2008												CALENDAR YEAR 2009												
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Remarks:

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET										DATE: February 2004		
P-40												
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE						
WPN/BA4						Cruiser Modernizatoin Program/422300/14CC						
Program Element for Code B Items:						Other Related Program Elements <b>0604307N, 0604567N, 0204221N</b>						
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009		To Complete	Total
QUANTITY	0		0	1	1	2	2	2	3		11	22
COST (In Millions)	0.0		0.0	15.2	8.8	31.9	41.9	34.2	53.1		356.0	541.1
SPARES COST (In Millions)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
<p>Converted CG47 Class ships will be able to operate offensively and defensively, independently or as units of Carrier Battle Groups and Surface Action Groups, in support of Underway Replenishment Groups and the Marine Amphibious Task Forces in multithreat environments that include air, surface and subsurface threats. These ships will respond to Low Intensity Conflict/Coastal and Littoral Offshore Warfare (LIC/CALOW) scenarios as well as open ocean conflict scenarios, providing and augmenting power projection and forward presence. In addition, these ships will conduct Air Dominance, Land Attack and Force Protection missions.</p> <p>Funding in this line will fund the procurement and installation of MK 45 Gun Mounts of Cruisers during their modernization availabilities. Each hull will have two gun mounts installed. It also funds the procurement and installation of one CIWS 1B shipset (two mounts) on CG 71 during its modernization availability in FY 2006.</p> <p>CC001- CIWS-1B Upgrade for CG71 CG Modernization Availability CC002- MK 45 Gun Mounts for all CG Modernization Availabilities</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5			Weapon System <b>CG47 Class Cruiser Modernizat</b>									DATE: February 2004					
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-4: CG47 Class Cruiser Modernizat</b>			ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD <b>Cruiser Modernizat Program/422300/14CC</b>													
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS														
			Prior Years	FY 2003			FY 2004			FY 2005							
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
CC001	CIWS 1B Upgrade		0				0	0	0	1	8,386	8,386	0	0	0		
CC002	MK45 Gun Mounts		0				0	0	0	1	6,800	6,800	1	8,760	8,760		
Total			0						0			15,186			8,760		

**UNCLASSIFIED**

# UNCLASSIFIED

CLASSIFICATION:

B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE			A. DATE		
Weapons Procurement, Navy/BA-4: CG47 Class Cruiser Modernizatoin Program					Cruiser Modernizatoin Program/422300/14CC			14CC		
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<b><u>Fiscal Year 2004</u></b>										
<b><u>CC001</u></b> CIWS 1B Upgrade	1	8,386	NAVSEA	Jan-04	FFP	Raytheon, Louisville, KY	Feb-04	Feb-06	Yes	
<b><u>CC002</u></b> MK45 Gun Mounts	1	6,800	NAVSEA	Jan-04	FFP	UDLP, Louisville, KY/Minneapolis, MN	Feb-04	Feb-06	Yes	
<b><u>Fiscal Year 2005</u></b>										
<b><u>CC001</u></b> CIWS 1B Upgrade	0	0								
<b><u>CC002</u></b> MK45 Gun Mounts	1	8,760	NAVSEA	Nov-04	FFP	UDLP, Louisville, KY/Minneapolis, MN	Dec-04	Dec-06	Yes	
D. REMARKS										