

UNCLASSIFIED

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity:
1507N: Weapons Procurement, Navy / BA 02: Other Missiles / BSA 3: Modification of Missiles

P-1 Line Item Number / Title:
2327 / HARM Mods

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0205601N

Line Item MDAP/MAIS Code: 368

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	831.435	183.368	179.885	0.000	183.740	183.740	218.073	205.804	209.933	214.125	1,432.469	3,658.832
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	831.435	183.368	179.885	0.000	183.740	183.740	218.073	205.804	209.933	214.125	1,432.469	3,658.832
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	831.435	183.368	179.885	0.000	183.740	183.740	218.073	205.804	209.933	214.125	1,432.469	3,658.832

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	0.000	3.665	3.665	4.487	4.576	4.668	0.794	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY 2020 funding totals include \$0.0M for Base and \$183.74M for Overseas Contingency Operations (OCO); of which \$183.74M is realigned as part of the OCO for Base Requirements. FY 2020 OCO for Base Requirements is OCO funding for base budget requirements in support of the National Defense Strategy. The Budget requests these funds in OCO to comply with the base budget defense caps included in the Budget Control Act of 2011.

AGM-88E Advanced Anti-Radiation Guided Missile (AARGM) is an ACAT-1C acquisition program to upgrade the Legacy AGM-88 High Speed Anti-Radiation Missile (HARM) with multi-mode guidance and enhanced targeting capability. The AARGM program will integrate multi-mode guidance (passive Anti-Radiation Homing (ARH)/active Millimeter Wave (MMW) Radar/Global Positioning system (GPS)/Inertial Navigation System) on the HARM AGM-88 missile. The AARGM weapon system capabilities include: active MMW terminal guidance, counter shutdown, expanded threat coverage, enhanced ARH receiver, Weapon Impact Assessment (WIA) transmission prior to detonation, GPS point-to-point weapon navigation, and weapon employment with impact avoidance zone/missile impact zones. AARGM AGM-88E production units possess the capability to engage targets in the Destruction of Enemy Air Defenses (DEAD) mission area and will be able to destroy non-traditional and Overseas Contingency Operation (OCO) targets. AARGM is a cooperative program between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Italy.

The Advanced Anti-Radiation Guided Missile Extended Range (AARGM ER) upgrade includes hardware and software improvements to AARGM's operational capabilities, including extended range, survivability, and effectiveness against complex, new and emerging threats.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1507N: Weapons Procurement, Navy / BA 02: Other Missiles / BSA 3: Modification of Missiles **P-1 Line Item Number / Title:** 2327 / HARM Mods

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0205601N

Line Item MDAP/MAIS Code: 368

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / HARM Mods (AARGM) (Added Capability)				- / 831.435	- / 183.368	- / 179.885	- / 0.000	- / 183.740	- / 183.740
P-3a	2 / HARM Mods (AARGM ER) (Added Capability)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 831.435	- / 183.368	- / 179.885	- / 0.000	- / 183.740	- / 183.740

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / HARM Mods (AARGM) (Added Capability)				- / 188.073	- / 175.142	- / 178.658	- / 0.000	- / 0.000	- / 1,920.301
P-3a	2 / HARM Mods (AARGM ER) (Added Capability)				- / 30.000	- / 30.662	- / 31.275	- / 214.125	- / 1,432.469	- / 1,738.531
P-40	Total Gross/Weapon System Cost				- / 218.073	- / 205.804	- / 209.933	- / 214.125	- / 1,432.469	- / 3,658.832

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
 FY 2020 funding supports the procurement of AARGM modification kits for All Up Rounds (AURs), Captive Air Training Missiles (CATMs), container modifications, telemetry sections, support equipment, engineering and logistics support, Engineering Change Orders (ECO), contractor Other Production Support (OPS), Special Tooling/Special Test Equipment (ST/STE) and Diminishing Manufacturing Sources (DMS).

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Exhibit P-3a, Individual Modification: PB 2020 Navy	Date: March 2019
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Appropriation / Budget Activity / Budget Sub Activity: 1507N / 02 / 3	P-1 Line Item Number / Title: 2327 / HARM Mods	Modification Number / Title: 1 / HARM Mods (AARGM)
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	831.435	183.368	179.885	0.000	183.740	183.740	188.073	175.142	178.658	0.000	0.000	1,920.301
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	831.435	183.368	179.885	0.000	183.740	183.740	188.073	175.142	178.658	0.000	0.000	1,920.301
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	831.435	183.368	179.885	0.000	183.740	183.740	188.073	175.142	178.658	0.000	0.000	1,920.301

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AARGM is an ACAT-1C acquisition program to upgrade the Legacy AGM-88 HARM missile with multi-mode/multi-spectral guidance and enhanced targeting. Full-Rate Production (FRP) decision was granted on 4 September 2012. FRP Lot 7 contract funded with FY 2018 was awarded 3Q FY 2018 with deliveries commencing in April 2020.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1507N / 02 / 3					P-1 Line Item Number / Title: 2327 / HARM Mods					Modification Number / Title: 1 / HARM Mods (AARGM)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: AGM-88E				Modification Type: Added Capability				Related RDT&E PEs: 0205601N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> HARM Mods (AARGM)													
A Kits													
Recurring													
1.1.1) ES010 AUR Installation Kits - Organic ⁽¹⁾	807 / 536.484	244 / 140.108	256 / 144.282	- / 0.000	245 / 140.326	245 / 140.326	245 / 141.904	249 / 145.246	254 / 149.538	- / -	- / -	2,300 / 1,397.888	
1.1.2) ES990 Training Equipment (CATMs) - Organic ⁽²⁾	108 / 75.497	8 / 4.594	5 / 2.818	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	121 / 82.909	
<i>Subtotal: Recurring</i>	- / 611.981	- / 144.702	- / 147.100	- / 0.000	- / 140.326	- / 140.326	- / 141.904	- / 145.246	- / 149.538	- / -	- / 0.000	- / 1,480.797	
<i>Subtotal: HARM Mods (AARGM)</i>	915 / 611.981	252 / 144.702	261 / 147.100	- / 0.000	245 / 140.326	245 / 140.326	245 / 141.904	249 / 145.246	254 / 149.538	- / -	- / -	2,421 / 1,480.797	
<i>Subtotal: Procurement, All Modification Items</i>	- / 611.981	- / 144.702	- / 147.100	- / 0.000	- / 140.326	- / 140.326	- / 141.904	- / 145.246	- / 149.538	- / -	- / 0.000	- / 1,480.797	
Support (All Modification Items)													
2.1) ES960 Containers	460 / 6.786	126 / 1.129	130 / 1.146	- / 0.000	123 / 1.074	123 / 1.074	123 / 1.070	125 / 1.084	127 / 1.100	- / -	- / -	1,214 / 13.389	
2.2) Telemetry Sections ⁽³⁾	3 / 1.500	36 / 11.700	23 / 7.500	- / 0.000	53 / 17.263	53 / 17.263	55 / 17.930	14 / 4.564	16 / 5.216	- / -	- / -	200 / 65.673	
2.3) ES970 Support Equipment ⁽⁴⁾	- / 9.618	- / 1.181	- / 0.786	- / 0.000	- / 0.792	- / 0.792	- / 0.807	- / 0.833	- / 0.697	- / -	- / -	- / 14.714	
2.4) ES700 Engineering Change Orders ⁽⁵⁾	- / 32.811	- / 2.400	- / 3.383	- / 0.000	- / 3.944	- / 3.944	- / 5.616	- / 2.476	- / 2.219	- / -	- / -	- / 52.849	
2.5) ES930 Production Engineering Support ⁽⁶⁾	- / 49.928	- / 6.918	- / 5.838	- / 0.000	- / 5.942	- / 5.942	- / 6.061	- / 6.182	- / 6.306	- / -	- / -	- / 87.175	
2.6) Non-Recurring Engineering	- / 4.111	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.111	
2.7) ES970 Integrated Logistics Support ⁽⁷⁾	- / 21.683	- / 1.393	- / 1.419	- / 0.000	- / 1.447	- / 1.447	- / 1.476	- / 1.505	- / 1.351	- / -	- / -	- / 30.274	
2.8) ES950 Other Production Support ⁽⁸⁾	- / 59.165	- / 7.159	- / 7.582	- / 0.000	- / 7.734	- / 7.734	- / 7.889	- / 8.047	- / 8.207	- / -	- / -	- / 105.783	
2.9) ES400 ST/STE for Production Facilitization ⁽⁹⁾	- / 26.101	- / 5.020	- / 3.331	- / 0.000	- / 3.384	- / 3.384	- / 3.451	- / 3.625	- / 3.698	- / -	- / -	- / 48.610	
2.10) ES260 Diminishing Manufacturing Sources (DMS) ⁽¹⁰⁾	- / 7.751	- / 1.766	- / 1.800	- / 0.000	- / 1.834	- / 1.834	- / 1.869	- / 1.580	- / 0.326	- / -	- / -	- / 16.926	
<i>Subtotal: Support</i>	- / 219.454	- / 38.666	- / 32.785	- / 0.000	- / 43.414	- / 43.414	- / 46.169	- / 29.896	- / 29.120	- / -	- / 0.000	- / 439.504	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	831.435	183.368	179.885	0.000	183.740	183.740	188.073	175.142	178.658	0.000	0.000	1,920.301	

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Exhibit P-3a, Individual Modification: PB 2020 Navy					Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1507N / 02 / 3			P-1 Line Item Number / Title: 2327 / HARM Mods			Modification Number / Title: 1 / HARM Mods (AARGM)	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 1 of 1: HARM Mods (AARGM)							
Manufacturer Information							
Manufacturer Name: Northrup Grumman Corporation Innovation Systems ⁽¹¹⁾					Manufacturer Location: Northridge, CA		
Administrative Leadtime (in Months): 8					Production Leadtime (in Months): 23		
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	May 2018	May 2019	May 2020	May 2021	May 2022	May 2023	
Delivery Dates	Apr 2020	Apr 2021	Apr 2022	Apr 2023	Apr 2024	Apr 2025	

Footnotes:

- (1) Cost Element 1.1.1 AUR Installation kits budget reflects requirements and updates based on contract actuals, adjusting quantity and unit costs.
- (2) Cost Element 1.1.2 CATMs budget reflects requirements and updates based on contract actuals, adjusting quantity and unit costs. CATMs are based on the analysis of operational fleet training requirements.
- (3) Cost Element 2.2 Telemetry Sections provide the data required to assess flight testing and provide the flight termination capability required for range safety during live firings on United States Navy ranges. Funding is required to meet Noncombat Expenditure Allocation (NCEA) requirements. Increase in Telemetry Sections from FY19 to FY20 is to ramp up in quantities in order to meet the NCEA requirements.
- (4) Cost Element 2.3 Support equipment includes Common Munitions Bit/Reprogramming Equipment (CMBRE), unique support equipment, and radome covers.
- (5) Cost Element 2.4 Engineering change orders (ECO) are used for the Cost Improvement Initiatives (CII), safety, and engineering change proposals (ECPs) to add capability, reduce missile cost and improve production. Increase in ECO from FY19 to FY20 is to account for four configuration changes to the AARGM missile in order to increase capability on the weapon to be able to prosecute complex emitters.
- (6) Cost Element 2.5 Production Engineering Support (PES) reflect field activity requirements as stated in the approved FRP decision.
- (7) Cost Element 2.7 Integrated Logistics Support (ILS) budget line supports costs of maintenance, supply support, support equipment management, computer resources support, training and training support, ILS program management, and Packaging, Handling, Storage and Transportation (PHS&T).
- (8) Cost Element 2.8 Other Production Support (OPS) includes prime contractor production support and recurring fixed costs that are required per lot. Funding profile for OPS reflect requirements and updated based on contract actuals.
- (9) Cost Element 2.9 Special Tooling/Special Test Equipment (ST/STE) for production facilitization includes rate tooling to meet production ramp each year as well as planning, building, installing, maintaining, calibrating, repairing and replacing of ST/STE and production equipment.
- (10) Cost Element 2.10 Diminishing Manufacturing Sources (DMS) added to comply with Congressional direction, H.R. 933. DMS funding includes life-of-type buys due to obsolescence parts and components and other obsolescence issue resolutions. Funding reflects the programs projected obsolescence issues and can vary from year to year.
- (11) Orbital ATK renamed Northrop Grumman Corporation Innovation Systems.

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Exhibit P-3a, Individual Modification: PB 2020 Navy	Date: March 2019
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Appropriation / Budget Activity / Budget Sub Activity: 1507N / 02 / 3	P-1 Line Item Number / Title: 2327 / HARM Mods	Modification Number / Title: 2 / HARM Mods (AARGM ER)
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ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	0.000	0.000	0.000	30.000	30.662	31.275	214.125	1,432.469	1,738.531
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	0.000	0.000	0.000	30.000	30.662	31.275	214.125	1,432.469	1,738.531
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	0.000	0.000	0.000	30.000	30.662	31.275	214.125	1,432.469	1,738.531

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Advanced Anti-Radiation Guided Missile Extended Range (AARGM ER) upgrade includes hardware and software improvements to AARGM's operational capabilities, including extended range, survivability, and effectiveness against complex, new and emerging threats. Planned Initial Operating Capability (IOC) is 4Q FY 2023. The AARGM ER Low Rate Initial Production 1 is expected to award in 3Q FY 2021 with expected deliveries beginning in 2Q FY 2023.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1507N / 02 / 3					P-1 Line Item Number / Title: 2327 / HARM Mods					Modification Number / Title: 2 / HARM Mods (AARGM ER)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: AGM-88E				Modification Type: Added Capability				Related RDT&E PEs: 0205601N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> HARM Mods (AARGM ER)													
A Kits													
Recurring													
1.1.1) AUR Installation Kits - Organic ⁽¹²⁾	- / -	- / -	- / -	- / -	- / -	- / -	16 / 9.100	16 / 9.282	16 / 9.468	291 / 175.637	1,661 / 1,072.321	2,000 / 1,275.808	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 9.100	- / 9.282	- / 9.468	- / 175.637	- / 1,072.321	- / 1,275.808	
<i>Subtotal: HARM Mods (AARGM ER)</i>	- / -	- / -	- / -	- / -	- / -	- / -	16 / 9.100	16 / 9.282	16 / 9.468	291 / 175.637	1,661 / 1,072.321	2,000 / 1,275.808	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 9.100	- / 9.282	- / 9.468	- / 175.637	- / 1,072.321	- / 1,275.808	
Support (All Modification Items)													
2.1) Containers	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.334	- / 0.341	- / 0.348	- / 6.459	- / 39.435	- / 46.917	
2.2) Support Equipment ⁽¹³⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.695	- / 1.729	- / 1.764	- / 12.095	- / 173.844	- / 191.127	
2.3) Engineering Change Orders ⁽¹⁴⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.408	- / 1.498	- / 1.528	- / 1.238	- / 10.028	- / 15.700	
2.4) Production Engineering Support ⁽¹⁵⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.800	- / 7.956	- / 8.101	- / 8.263	- / 53.167	- / 85.287	
2.5) Non-Recurring Engineering	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.814	- / 2.870	- / 2.927	- / 2.986	- / 19.210	- / 30.807	
2.6) Integrated Logistics Support ⁽¹⁶⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.341	- / 1.368	- / 1.394	- / 1.422	- / 9.149	- / 14.674	
2.7) Other Production Support ⁽¹⁷⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.560	- / 2.611	- / 2.678	- / 2.897	- / 18.647	- / 29.393	
2.8) ST/STE for Production Facilitization ⁽¹⁸⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.948	- / 3.007	- / 3.067	- / 3.128	- / 20.129	- / 32.279	
2.9) Diminishing Manufacturing Sources (DMS) ⁽¹⁹⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.539	- / 16.539	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 20.900	- / 21.380	- / 21.807	- / 38.488	- / 360.148	- / 462.723	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	30.000	30.662	31.275	214.125	1,432.469	1,738.531	

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Exhibit P-3a, Individual Modification: PB 2020 Navy				Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1507N / 02 / 3			P-1 Line Item Number / Title: 2327 / HARM Mods			Modification Number / Title: 2 / HARM Mods (AARGM ER)	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Modification Item 1 of 1: HARM Mods (AARGM ER)							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 8				Production Leadtime (in Months): 27			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates				May 2021	May 2022	May 2023	May 2024
Delivery Dates				Aug 2023	Aug 2024	Aug 2025	Aug 2026

Footnotes:

- (12) Cost Element 1.1.1 AGM-88E ER AUR Installation Kits include a modification kit that will improve AARGM's operational capabilities, including extended range, survivability and effectiveness against complex, new, and emerging threats. Unit cost based on pre-Development & Integration estimate. Total inventory objective updated from 200 units to 2,000 units.
- (13) Cost Element 2.2 Support equipment includes Common Munitions Bit/Reprogramming Equipment (CMBRE), unique support equipment and radome covers.
- (14) Cost Element 2.3 Engineering change orders (ECO) are used for the Continuous Improvement Initiatives (CII), safety, and engineering changes (ECPs) to reduce missile cost and improve producibility.
- (15) Cost Element 2.4 Production Engineering Support (PES) reflect field activity requirements.
- (16) Cost Element 2.6 Integrated Logistics Support (ILS) budget line supports costs of maintenance, supply support, support equipment management, computer resources support, training and training support, ILS program management, and Packaging, Handling, Storage and Transportation (PHS&T).
- (17) Cost Element 2.7 Other Production Support (OPS) includes prime contractor production support and recurring fixed costs that are required per lot.
- (18) Cost Element 2.8 Special Tooling/Special Test Equipment (ST/STE) funding is for production facilitization includes rate tooling to meet production ramp each year as well as planning, building, installing, maintaining, calibrating, repairing and replacing of ST/STE and production equipment.
- (19) Cost Element 2.9 Diminishing Manufacturing Sources funding includes life-of-type buys due to obsolescence parts and components and other obsolescence issue resolutions.