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**Department of Defense
Fiscal Year (FY) 2024 Budget Estimates**

March 2023



Missile Defense Agency

Defense-Wide Justification Book Volume 2b of 2

Procurement, Defense-Wide
(Includes O&M and MILCON)

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Missile Defense Agency • Budget Estimates FY 2024 • Procurement

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Defense Information Systems Agency.....Volume 1

Defense Logistics Agency.....Volume 1

Defense Media Activity..... Volume 1

Defense POW MIA Accounting Agency..... Volume 1

Defense Production Act Purchases..... Volume 1

Defense Threat Reduction Agency.....Volume 1

Department of Defense Education Activity..... Volume 1

DoD Human Resources Activity..... Volume 1

Office of the Secretary Of Defense..... Volume 1

Space Development Agency..... Volume 1

The Joint Staff..... Volume 1

United States Cyber Command..... Volume 1

United States Special Operations Command.....Volume 1

Washington Headquarters Services..... Volume 1

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Introduction & Explanation of Contents

The Department of Defense Fiscal Year (FY) 2024 Budget Estimate Submission RDT&E (Includes Procurement, O&M, and MILCON), Defense-wide Volume 2, Missile Defense Agency (MDA) justification materials consists of two books titled Volume 2a and 2b. Justification documents are provided in the books as listed below.

Volume 2a

- MDA FY 2024 Budget Estimate Overview
- MDA Appropriation Summary
- Acronyms
- RDT&E Exhibits in BA-03, BA-04, and BA-06

Volume 2b

- MDA Operation and Maintenance Exhibit
- MDA MILCON Exhibits
- MDA Procurement Exhibits

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Department of Defense
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 DoD Component Summary
 (Dollars in Thousands)

Mar 2023

<u>Appropriation Summary</u>	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment	FY 2024 Request
Procurement, Defense-Wide	2,611,253	1,662,861		1,662,861	1,453,312
Total Defense-Wide	2,611,253	1,662,861		1,662,861	1,453,312
Grand Total Department of Defense	2,611,253	1,662,861		1,662,861	1,453,312

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Defense-Wide
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 Defense Summary
 (Dollars in Thousands)

Mar 2023

<u>Appropriation Summary</u>	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment [*]	FY 2023 Total Enactment	FY 2024 Request
Procurement, Defense-Wide	2,611,253	1,662,861		1,662,861	1,453,312
Total Defense-Wide	2,611,253	1,662,861		1,662,861	1,453,312

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Department of Defense
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

Mar 2023

Organization: Procurement, Defense-Wide	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment*	FY 2023 Total Enactment	FY 2024 Request
Missile Defense Agency, MDA	2,611,253	1,662,861		1,662,861	1,453,312
Total Defense-Wide	2,611,253	1,662,861		1,662,861	1,453,312

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Defense-Wide
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 0300D BA Summary
 (Dollars in Thousands)

Mar 2023

Appropriation: Procurement, Defense-Wide	FY 2022 Actuals	FY 2023 Less Supplementals Enactment	FY 2023 Supplementals Enactment [*]	FY 2023 Total Enactment	FY 2024 Request
Budget Activity					
01. Major equipment	2,611,253	1,662,861		1,662,861	1,453,312
Total Procurement, Defense-Wide	2,611,253	1,662,861		1,662,861	1,453,312

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Defense-Wide
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 0300D Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 0300 Procurement, Defense-Wide				FY 2022 Actuals		FY 2023 Less Supplementals Enactment		FY 2023 Supplementals Enactment	
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost	Quantity	Cost ⁺
<u>Budget Activity 01: Major equipment</u>									
Major Equipment, Missile Defense Agency									
31	THAAD	A	U	32	380,722	18	239,994		
32	Ground Based Midcourse	A	U				11,300		
33	Aegis BMD	A	U	40	(394,386)	47	(455,835)		
	Less: Advance Procurement (PY)				(-59,765)		(-53,600)		
				40	334,621	47	402,235		
34	Aegis BMD								
	Advance Procurement (CY)				17,493				
	C (FY 2022 for FY 2023) (M)				(17,493)				
35	BMDS AN/TPY-2 Radars	A	U		2,738		4,606		
36	SM-3 IIAs	A	U	16	488,022	24	669,975		
37	Arrow 3 Upper Tier Systems	A	U	1	62,000	1	80,000		
38	Short Range Ballistic Missile Defense (SRBMD)	A	U	1	30,000	1	40,000		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Defense-Wide
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 0300D Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 0300 Procurement, Defense-Wide

Line No	Item Nomenclature	Ident Code	Se c	FY 2023 Total Enactment		FY 2024 Request	
				Quantity	Cost	Quantity	Cost
<u>Budget Activity 01: Major equipment</u>							
Major Equipment, Missile Defense Agency							
31	THAAD	A	U	18	239,994	11	216,782
32	Ground Based Midcourse	A	U		11,300		
33	Aegis BMD	A	U	47	(455,835)	27	(374,756)
	Less: Advance Procurement (PY)				(-53,600)		
				47	402,235	27	374,756
34	Aegis BMD Advance Procurement (CY) C (FY 2022 for FY 2023) (M)						
35	BMDS AN/TPY-2 Radars	A	U		4,606		29,108
36	SM-3 IIAs	A	U	24	669,975	12	432,824
37	Arrow 3 Upper Tier Systems	A	U	1	80,000	1	80,000
38	Short Range Ballistic Missile Defense (SRBMD)	A	U	1	40,000	1	40,000

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Defense-Wide
 FY 2024 President's Budget
 Exhibit P-1 FY 2024 President's Budget
 Total Obligational Authority
 0300D Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 0300 Procurement, Defense-Wide				FY 2022 Actuals		FY 2023 Less Supplementals Enactment		FY 2023 Supplementals Enactment	
Line No	Item Nomenclature	Ident Code	Se c	Quantity	Cost	Quantity	Cost	Quantity	Cost ⁺
39	Defense of Guam Procurement	A	U		80,000		26,514		
40	Aegis Ashore Phase III	A	U		27,866		30,056		
41	Iron Dome	A	U	1	1,108,000	1	80,000		
42	Aegis BMD Hardware and Software	A	U	7	79,791	6	78,181		
Total Major equipment				98	2,611,253	98	1,662,861		
Total Procurement, Defense-Wide				98	2,611,253	98	1,662,861		

*Includes enacted funding in the Ukraine Supplemental Appropriation Act, 2023 (Division B of Public Law 117-180) and Additional Ukraine Supplemental Appropriation Act, 2023 (Division M of Public Law 117-328).

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Defense-Wide
 FY 2024 President's Budget
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 Total Obligational Authority
 0300D Detail
 (Dollars in Thousands)

Mar 2023

Appropriation: 0300 Procurement, Defense-Wide

Line No	Item Nomenclature	Ident Code	Se c	FY 2023 Total Enactment		FY 2024 Request	
				Quantity	Cost	Quantity	Cost
39	Defense of Guam Procurement	A	U		26,514	1	169,627
40	Aegis Ashore Phase III	A	U		30,056		2,390
41	Iron Dome	A	U	1	80,000	1	80,000
42	Aegis BMD Hardware and Software	A	U	6	78,181	9	27,825
Total Major equipment				98	1,662,861	63	1,453,312
Total Procurement, Defense-Wide				98	1,662,861	63	1,453,312

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31	01	17	MD07	THAAD.....	Volume 2b - 1
32	01	17	MD08	Ground Based Midcourse.....	Volume 2b - 23
33	01	17	MD09	AEGIS BMD.....	Volume 2b - 45
34	01	17	MD09	AEGIS BMD, Advance Procurement.....	Volume 2b - 69
35	01	17	MD11	BMDS Sensors.....	Volume 2b - 73
36	01	17	MD14	SM-3 Block IIA.....	Volume 2b - 107
37	01	17	MD26	Arrow 3 Upper Tier System.....	Volume 2b - 117
38	01	17	MD34	Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS)).....	Volume 2b - 121
39	01	17	MD65	Defense of Guam Procurement.....	Volume 2b - 125
40	01	17	MD73	Aegis Ashore Phase III.....	Volume 2b - 131
41	01	17	MD83	Iron Dome.....	Volume 2b - 141
42	01	17	MD90	Aegis BMD Hardware and Software.....	Volume 2b - 145

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Line Item Title	Line Item Number	Line #	BA	BSA	Page
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AEGIS BMD, Advance Procurement	MD09	34	01	17.....	Volume 2b - 69
Aegis Ashore Phase III	MD73	40	01	17.....	Volume 2b - 131
Aegis BMD Hardware and Software	MD90	42	01	17.....	Volume 2b - 145
Arrow 3 Upper Tier System	MD26	37	01	17.....	Volume 2b - 117
BMDS Sensors	MD11	35	01	17.....	Volume 2b - 73
Defense of Guam Procurement	MD65	39	01	17.....	Volume 2b - 125
Ground Based Midcourse	MD08	32	01	17.....	Volume 2b - 23
Iron Dome	MD83	41	01	17.....	Volume 2b - 141
SM-3 Block IIA	MD14	36	01	17.....	Volume 2b - 107
Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))	MD34	38	01	17.....	Volume 2b - 121
THAAD	MD07	31	01	17.....	Volume 2b - 1

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Missile Defense Agency



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**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

	Total Obligational Authority (Dollars in Thousands)		
	FY 2022	FY 2023	FY 2024
	<u>Actuals</u>	<u>Enacted</u>	<u>Estimate</u>
4. Administrative and Servicewide Activities	510,065	541,787	564,078
Aegis BMD Program	77,170	69,071	72,224
Ground-Based Midcourse Program	156,623	185,564	174,789
Missile Defense System Radars Program	190,715	200,207	227,768
THAAD Program	85,557	86,945	89,297
Total Operation and Maintenance, MDA	510,065	541,787	564,078

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**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

	Total Obligational Authority (Dollars in Thousands)		
	FY 2022	FY 2023	FY 2024
	<u>Actuals</u>	<u>Enacted</u>	<u>Estimate</u>
4. Administrative and Servicewide Activities	510,065	541,787	564,078
Aegis BMD Program	77,170	69,071	72,224
Ground-Based Midcourse Program	156,623	185,564	174,789
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THAAD Program	85,557	86,945	89,297
Total Operation and Maintenance, MDA	510,065	541,787	564,078

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**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

	<u>FY 2022</u>	<u>Price</u>	<u>Price</u>	<u>Program</u>	<u>FY 2023</u>	<u>Price</u>	<u>Price</u>	<u>Program</u>	<u>FY 2024</u>
	<u>Program</u>	<u>Growth</u>	<u>Growth</u>	<u>Growth</u>	<u>Program</u>	<u>Growth</u>	<u>Growth</u>	<u>Growth</u>	<u>Program</u>
		<u>Percent</u>				<u>Percent</u>			
0308 TRAVEL OF PERSONS	150	2.10%	3	-148	5	2.20%	0	-5	0
TOTAL TRAVEL	150		3	-148	5		0	-5	0
0401 DLA ENERGY (FUEL PRODUCTS)	1,593	-7.47%	-119	-223	1,251	-11.50%	-144	186	1,293
TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS	1,593		-119	-223	1,251		-144	186	1,293
0611 NAVY SURFACE WARFARE CTR	0	1.57%	0	0	0	5.72%	0	486	486
0677 DISA TELECOMM SVCS - REIMBURSABLE	130	0.00%	0	3,787	3,917	6.50%	255	-3,810	362
TOTAL OTHER FUND PURCHASES	130		0	3,787	3,917		255	-3,324	848
0771 COMMERCIAL TRANSPORT	7,443	2.10%	156	1,814	9,413	2.00%	188	-4,933	4,668
TOTAL TRANSPORTATION	7,443		156	1,814	9,413		188	-4,933	4,668
0913 PURCHASED UTILITIES (NON-FUND)	2,376	2.10%	50	-2,358	68	2.20%	1	2,954	3,023
0914 PURCHASED COMMUNICATIONS (NON-FUND)	2,052	2.10%	43	-1,970	125	2.20%	3	887	1,015
0915 RENTS (NON-GSA)	261	2.10%	5	-23	243	2.20%	5	7	255
0920 SUPPLIES & MATERIALS (NON-FUND)	64,448	2.10%	1,353	-22,502	43,299	2.20%	953	30,415	74,667
0922 EQUIPMENT MAINTENANCE BY CONTRACT	284,320	2.10%	5,971	21,789	312,080	2.20%	6,866	-29,938	289,008
0923 FACILITIES SUST, REST, & MOD BY CONTRACT	39,705	2.10%	834	16,013	56,552	2.20%	1,244	8,239	66,035
0925 EQUIPMENT PURCHASES (NON-FUND)	1,745	2.10%	37	-1,205	577	2.20%	13	-590	0
0930 OTHER DEPOT MAINTENANCE (NON-FUND)	85,898	2.10%	1,804	5,901	93,603	2.20%	2,059	11,300	106,962
0932 MGT PROF SUPPORT SVCS	0	2.10%	0	1,279	1,279	2.20%	28	-1,307	0
0933 STUDIES, ANALYSIS & EVAL	0	2.10%	0	0	0	2.20%	0	1,501	1,501
0934 ENGINEERING & TECH SVCS	1,700	2.10%	36	-1,076	660	2.20%	15	-675	0
0936 TRAINING AND LEADERSHIP DEVELOPMENT (OTHER CONTRACTS)	9,275	2.10%	195	-9,470	0	2.20%	0	6,006	6,006
0984 EQUIPMENT CONTRACTS	25	2.10%	1	98	124	2.20%	3	-20	107
0987 OTHER INTRA-GOVT PURCH	8,430	2.10%	177	362	8,969	2.20%	197	-476	8,690
0989 OTHER SERVICES	222	2.10%	5	9,395	9,622	2.20%	212	-9,834	0
0990 IT CONTRACT SUPPORT SERVICES	292	2.10%	6	-298	0	2.20%	0	0	0

OP-32 Exhibit
MDA

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

	<u>FY 2022 Program</u>	<u>Price Growth Percent</u>	<u>Price Growth</u>	<u>Program Growth</u>	<u>FY 2023 Program</u>	<u>Price Growth Percent</u>	<u>Price Growth</u>	<u>Program Growth</u>	<u>FY 2024 Program</u>
TOTAL OTHER PURCHASES	500,749		10,517	15,935	527,201		11,599	18,469	557,269
GRAND TOTAL	510,065		10,557	21,165	541,787		11,898	10,393	564,078

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

	<u>FY 2022</u>	<u>Price</u>	<u>Price</u>	<u>Program</u>	<u>FY 2023</u>	<u>Price</u>	<u>Price</u>	<u>Program</u>	<u>FY 2024</u>
	<u>Program</u>	<u>Growth</u>	<u>Growth</u>	<u>Growth</u>	<u>Program</u>	<u>Growth</u>	<u>Growth</u>	<u>Growth</u>	<u>Program</u>
		<u>Percent</u>				<u>Percent</u>			
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0930 OTHER DEPOT MAINTENANCE (NON-FUND)	85,898	2.10%	1,804	5,901	93,603	2.20%	2,059	11,300	106,962
0932 MGT PROF SUPPORT SVCS	0	2.10%	0	1,279	1,279	2.20%	28	-1,307	0
0933 STUDIES, ANALYSIS & EVAL	0	2.10%	0	0	0	2.20%	0	1,501	1,501
0934 ENGINEERING & TECH SVCS	1,700	2.10%	36	-1,076	660	2.20%	15	-675	0
0936 TRAINING AND LEADERSHIP DEVELOPMENT (OTHER CONTRACTS)	9,275	2.10%	195	-9,470	0	2.20%	0	6,006	6,006
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0989 OTHER SERVICES	222	2.10%	5	9,395	9,622	2.20%	212	-9,834	0
0990 IT CONTRACT SUPPORT SERVICES	292	2.10%	6	-298	0	2.20%	0	0	0

OP-32A Exhibit
MDA

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

	<u>FY 2022 Program</u>	<u>Price Growth Percent</u>	<u>Price Growth</u>	<u>Program Growth</u>	<u>FY 2023 Program</u>	<u>Price Growth Percent</u>	<u>Price Growth</u>	<u>Program Growth</u>	<u>FY 2024 Program</u>
TOTAL OTHER PURCHASES	500,749		10,517	15,935	527,201		11,599	18,469	557,269
GRAND TOTAL	510,065		10,557	21,165	541,787		11,898	10,393	564,078

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

FY 2023 President's Budget Request (Amended, if applicable)	\$541,787
1. Congressional Adjustments	\$0
a) Distributed Adjustments	\$0
b) Undistributed Adjustments	\$0
c) Adjustments to Meet Congressional Intent.....	\$0
d) General Provisions	\$0
FY 2023 Appropriated Amount	\$541,787
2. Supplemental Appropriations	\$0
a) Supplemental Funding	\$0
3. Fact-of-Life Changes.....	\$0
a) Functional Transfers.....	\$0
b) Technical Adjustments	\$0
c) Emergent Requirements.....	\$0
FY 2023 Baseline Funding	\$541,787
4. Reprogrammings (Requiring 1415 Actions)	\$0
a) Increases.....	\$0

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

b) Decreases	\$0
Revised FY 2023 Estimate	\$541,787
5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings.....	\$0
a) Less: Supplemental Funding.....	\$0
FY 2023 Normalized Current Estimate	\$541,787
6. Price Change	\$11,898
7. Functional Transfers.....	\$0
a) Transfers In	\$0
b) Transfers Out	\$0
8. Program Increases.....	\$46,452
a) Annualization of New FY 2023 Program	\$0
b) One-Time FY 2024 Increases	\$0
c) Program Growth in FY 2024.....	\$46,452
Aegis Ballistic Missile Defense Program	\$8,606
Ground-Based Midcourse Defense Program	\$9,054
Missile Defense System Radars Program	\$28,349

**Missile Defense Agency
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THAAD Program.....	\$443
9. Program Decreases	\$-36,059
a) Annualization of FY 2023 Program Decreases	\$0
b) One-Time FY 2023 Increases	\$0
c) Program Decreases in FY 2024.....	\$-36,059
Aegis Ballistic Missile Defense Program	\$-6,970
Ground-Based Midcourse (GMD) Program.....	\$-23,904
Missile Defense System Radars Program.....	\$-5,185
FY 2024 Budget Request	\$564,078

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**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>Change FY 2023/2024</u>
Contractor FTEs (Total)	790	830	830	0

Personnel Summary Explanations

No change from FY 2023 to FY 2024

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**Missile Defense Agency
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Fiscal Year (FY) 2024 Budget Estimates**

<u>Appropriation Summary</u>	<u>FY 2022 Actuals</u>	<u>Price Change</u>	<u>Program Change</u>	<u>FY 2023 Enacted</u>	<u>Price Change</u>	<u>Program Change</u>	<u>FY 2024 Estimate</u>
O&M, MDA	\$510.1	\$10.6	\$21.2	\$541.8	\$11.9	\$10.4	\$564.1

Description of Operations Financed:

Provides Missile Defense Systems unique sustainment support for the BMD Aegis Weapon System (AWS), Ground-Based Midcourse Defense (GMD) system, Missile Defense System Radars, and Terminal High Altitude Area Defense (THAAD) systems.

- AWS sustainment support includes AWS Aegis Standard Missile-3 (SM-3) missile recertification, repair and maintenance, Aegis Ashore sites, and deployed BMD Aegis ship baselines, which MDA supports in conjunction with the Navy, who is responsible for operations and sustainment of common items.
- GMD Weapon System sustainment support for operational Ground-Based Interceptors and GMD systems, which MDA supports in conjunction with the Services. The respective Services are responsible for operations and sustainment of common items and common use areas.
- Missile Defense System Radars unique sustainment support includes twelve Army Navy/Transportable Radar Surveillance and Control-2 (AN/TPY-2) radars including Forward Based Mode (FBM) radars, five Upgraded Early Warning Radars (UEWRs) and COBRA DANE Radar, which MDA supports in conjunction with the U.S. Space Force, who is responsible for operations and sustainment of common items.
- THAAD MD unique sustainment support includes sustainment of the THAAD Missile defense unique and developmental items, which MDA supports in conjunction with the Army, who is responsible for the operations and sustainment of common items.

Overall Assessment

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**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

**Operation and Maintenance, Defense-Wide Summary (\$ in thousands)
Budget Activity (BA) 4: Administration and Service-Wide Activities**

	<u>FY 2022</u> <u>Actuals</u>	<u>Price</u> <u>Change</u>	<u>Program</u> <u>Change</u>	<u>FY 2023</u> <u>Enacted</u>	<u>Price</u> <u>Change</u>	<u>Program</u> <u>Change</u>	<u>FY 2024</u> <u>Estimate</u>
MDA	510,065	10,557	21,165	541,787	11,898	10,393	564,078

I. Description of Operations Financed:

Provides the following Ballistic Missile Defense (BMD) unique sustainment support:

A. Aegis Ballistic Missile Defense (BMD). Provides BMD unique sustainment support for deployed Aegis BMD ships, Standard Missile (SM-3), BMD Aegis Weapons System (AWS), and Aegis Ashore sites.

SM-3 missile sustainment includes recertification/repair/second destination transportation of missiles, installation of software and hardware updates, modeling and simulation and logistics efforts.

BMD AWS sustainment support includes:

- Technical and engineering services for in-service BMD ships and sites Missile Defense System test infrastructure maintenance to ensure in-service BMD AWS baselines maintain directed operational availability.
- BMD Engineering Agent technical support and operational analysis for BMD units for casualty correction, technical issues, improvements, maintenance, certification, and delivery of BMD AWS computer program updates to the Fleet
- Aegis software maintenance corrections in the common source library
- Test site infrastructure and maintenance
- Integrated logistics support of BMD unique parts including technical documentation review and updates, diminishing manufacturing sources, and obsolete materiel surveillance, identification, and resolution
- AEGIS BMD mission planner re-host to fleet warfighters

Aegis Ashore sustainment support includes:

- Operation and maintenance of Aegis Weapons System
- Facilitate Data Management efforts:
 - o Oversight for collection, storage, and distribution of technical data and documentation required for sustainment of the Aegis Ashore sites
 - o Retention and maintenance of the established data repository

B. Ground-Based Midcourse (GMD). Sustainment support for operational Ground-Based Interceptors and GMD systems based at Fort Greely, AK (FGA), and Vandenberg Space Force Base (VSFB), CA, Schriever Space Force Base (SSFB), CO, Fort Drum, NY (FDN) and Eareckson AS (EAS), AK, including urgently needed repairs and improvements previously deferred on aging support facilities at FGA and interceptor processing and integration facilities at VSFB critical to the GMD mission.

**Missile Defense Agency
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I. Description of Operations Financed: (Cont.)

Funding also ensures GMD assets are properly maintained and crews are trained to meet Combatant Commanders' needs. Specific activities include:

1. Weapon system sustainment support, equipment maintenance, operations support, and sustaining engineering.
2. Mission support, network operations and defense, and integrated logistics support.
3. GMD unique Base Operations Support (BOS), facility maintenance and repairs, facility restoration and modernization, and communication support at FGA, VSFB, FDN, and EAS as outlined in respective Support Agreements. The respective Services are responsible for common use areas and common use items.
4. Utilities for facilities that GMD occupies at VSFB, FDN, and EAS and in the FGA cantonment area as outlined in the associated Support Agreements. This cantonment area does not include the FGA Missile Defense Complex.
5. Configuration management and control for the fielded weapon system.

C. Missile Defense Systems Radars. Funding provides sustainment support for twelve Army Navy/Transportable Radar Surveillance and Control-2 (AN/TPY-2) Forward Based Mode (FBM) and Terminal High Altitude Area Defense (THAAD) configured Terminal Mode (TM) radars to include supply support, repair, maintenance, modernization, transportation, parts, storage, special tools and test equipment, recurring and delta training, technical interface, training device maintenance, engineering support, interactive electronic technical manual (IETM) updates, software user guide updates, software revision certification, and Depot Level Maintenance (DLM) for MDA's missile defense unique equipment. Funding also provides Cooling Equipment Unit (CEU) refurbishments and retrofit at Letterkenny Army Depot (LEAD) and continuation of Gallium Nitride (GaN) Transmit/Receive Integrated Microwave Module (T/RIMM) to replace obsolete equipment, incorporate updates to servers, and enhance radar capabilities. Additionally, funding provides contributions to sustainment unique to the MDA Missile Defense mission for the five Upgraded Early Warning Radars (UEWRs) and COBRA DANE radar that are in the U.S. Space Force's Global Command, Control, Communication, Intelligence (C3I) & Early Warning program, who is the responsible organization for the UEWR and COBRA DANE force structure, radar operators and maintainers, and operations and maintenance.

D. Terminal High Altitude Area Defense (THAAD). MDA is responsible for the sustainment of the THAAD missile defense unique and development items, while the U.S. Army is responsible for the operations and sustainment of the common items. MDA funding provides sustainment for all fielded THAAD Batteries, ensures THAAD assets are properly maintained and crews are trained to meet Combatant Commanders needs including:

1. Field and sustainment level supply, maintenance, modernization, hazardous materials/waste disposal, and depot-level maintenance for THAAD missile defense unique equipment.
2. Spares, Interceptor spares, repair parts, and maintenance capability at the location of each THAAD battery.
3. Engineering support for the THAAD missile defense unique equipment.
4. Deployment software support for fielded software to include: deficiency report reviews, error correction, incremental capability improvements, and hardware/system interface compatibility maintenance.

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MDA

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
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I. Description of Operations Financed: (Cont.)

5. Missile transportation and handling from the missile storage location to the site of the THAAD launchers.
6. Interactive Electronic Technical Manual (IETM) updates, software users' guide updates, and software revision certification.
7. Maintenance and upkeep for all THAAD training devices.
8. Supply maintenance and transportation support for all new equipment training, and sustainment training relating to design changes and equipment upgrades.

II. Force Structure Summary:

N/A

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

III. Financial Summary (\$ in Thousands):

	FY 2023							FY 2024 Estimate
	FY 2022 Actuals	Budget Request	Congressional Action			Current Enacted		
			Amount	Percent	Appropriated			
A. BA Subactivities								
4. Administrative and Servicewide Activities	\$510,065	\$541,787	\$0	0.00%	\$541,787	\$541,787	\$564,078	
Aegis BMD Program	\$77,170	\$69,071	\$0	0.00%	\$69,071	\$69,071	\$72,224	
Ground-Based Midcourse Program	\$156,623	\$185,564	\$0	0.00%	\$185,564	\$185,564	\$174,789	
Missile Defense System Radars Program	\$190,715	\$200,207	\$0	0.00%	\$200,207	\$200,207	\$227,768	
THAAD Program	<u>\$85,557</u>	<u>\$86,945</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$86,945</u>	<u>\$86,945</u>	<u>\$89,297</u>	
Total	\$510,065	\$541,787	\$0	0.00%	\$541,787	\$541,787	\$564,078	

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

III. Financial Summary (\$ in Thousands): (Cont.)

<u>B. Reconciliation Summary</u>	<u>Change FY 2023/FY 2023</u>	<u>Change FY 2023/FY 2024</u>
BASELINE FUNDING	\$541,787	\$541,787
Congressional Adjustments (Distributed)	0	
Congressional Adjustments (Undistributed)	0	
Adjustments to Meet Congressional Intent	0	
Congressional Adjustments (General Provisions)	0	
SUBTOTAL APPROPRIATED AMOUNT	541,787	
Fact-of-Life Changes (2023 to 2023 Only)	0	
SUBTOTAL BASELINE FUNDING	541,787	
Supplemental	0	
Reprogrammings	0	
Price Changes		11,898
Functional Transfers		0
Program Changes		10,393
CURRENT ESTIMATE	541,787	564,078
Less: Supplemental	0	
NORMALIZED CURRENT ESTIMATE	\$541,787	\$564,078

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

III. Financial Summary (\$ in Thousands): (Cont.)

FY 2023 President's Budget Request (Amended, if applicable)	\$541,787
1. Congressional Adjustments	\$0
a) Distributed Adjustments	\$0
b) Undistributed Adjustments	\$0
c) Adjustments to Meet Congressional Intent.....	\$0
d) General Provisions	\$0
FY 2023 Appropriated Amount	\$541,787
2. Supplemental Appropriations	\$0
a) Supplemental Funding	\$0
3. Fact-of-Life Changes.....	\$0
a) Functional Transfers.....	\$0
b) Technical Adjustments	\$0
c) Emergent Requirements.....	\$0
FY 2023 Baseline Funding	\$541,787
4. Reprogrammings (Requiring 1415 Actions)	\$0

**Missile Defense Agency
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Fiscal Year (FY) 2024 Budget Estimates**

III. Financial Summary (\$ in Thousands): (Cont.)

a) Increases	\$0
b) Decreases	\$0
Revised FY 2023 Estimate	\$541,787
5. Less: Item 2, Supplemental Appropriation and Item 4, Reprogrammings	\$0
a) Less: Supplemental Funding	\$0
FY 2023 Normalized Current Estimate	\$541,787
6. Price Change	\$11,898
7. Functional Transfers	\$0
a) Transfers In	\$0
b) Transfers Out	\$0
8. Program Increases	\$46,452
a) Annualization of New FY 2023 Program	\$0
b) One-Time FY 2024 Increases	\$0
c) Program Growth in FY 2024	\$46,452
1) Aegis Ballistic Missile Defense Program	\$8,606
\$5,745 increase provides repair/recertification of SM-3 Block IA and IB All Up Rounds (AURs) for the growing quantity of delivered missiles and to meet projected fleet requirements.	

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**Missile Defense Agency
Operation and Maintenance, Defense-Wide
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III. Financial Summary (\$ in Thousands): (Cont.)

\$2,237 increase provides BMD 4.x software changes in support of Mission Planner (MP) console upgrade and Mission and Threat Database re-architecture.

\$624 increase provides additional spares to extend deployment of SM-3 Block IA Rounds for an additional 4 years to prevent significant reduction in Fleet missile capacity and global BMD capability.
(FY 2023 Baseline: \$69,071 thousand)

2) Ground-Based Midcourse Defense Program\$9,054

\$4,739 increase provides urgently needed facility and infrastructure repairs at Fort Greely, AK and Vandenberg Space Force Base (VSFB), CA to include Heating, Ventilation and Air Conditioning (HVAC) and electrical repairs and upgrades, Environmental Control Unit (ECU) replacements, missile field paving and drainage improvements. Facilities targeted for improvement are aging support and processing facilities critical to the GMD mission. These repairs and improvements are required to meet mission readiness, equipment availability, quality of life standards, and safety requirements.

\$4,315 increase provides Ground-based Midcourse Defense (GMD) site power upgrades to include Uninterruptable Power Supply (UPS), Generator, Secondary Unit Substation repairs and replacements, and power resiliency measures. These improvements are required to ensure GMD system availability and missile defense readiness for the Warfighter.

(FY 2023 Baseline: \$185,564 thousand)

3) Missile Defense System Radars Program\$28,349

\$21,431 increase procures Gallium Nitride (GaN) Transmit Receive Integrated Microwave Modules (TRIMM) spares to support the modernization of the AN/TPY-2 radar fleet; replaces obsolete Gallium Arsenide (GaAs) TRIMM inventory and provides mission-critical and fleet spares. These efforts maintain inventories at radar sites to reduce radar downtime and provide optimum operational capability.

\$6,918 increase provides AN/TPY-2 Cooling Equipment Unit (CEU) Depot Level Maintenance (DLM) to address obsolescence and maintain the reliability of the radar systems.
(FY 2023 Baseline: \$200,207 thousand)

4) THAAD Program\$443

\$443 Increase reflects updated cost estimates for THAAD Battery sustainment.
(FY 2023 Baseline: \$86,945 thousand)

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

III. Financial Summary (\$ in Thousands): (Cont.)

9. Program Decreases	\$-36,059
a) Annualization of FY 2023 Program Decreases	\$0
b) One-Time FY 2023 Increases	\$0
c) Program Decreases in FY 2024	\$-36,059
1) Aegis Ballistic Missile Defense Program	\$-6,970
-\$4,637 decrease reflects a reduction in number of BMD 5.x Software Change Requests from 1,050 to 800.	
-\$1,478 decrease reflects a reduction in required lab hours at Combat System Engineering Development Site (CSEDS) and Surface Combat Systems Center Wallops Island test sites in support of Aegis BMD baselines.	
-\$855 decrease reflects transition of Aegis Ashore Poland operations to Navy funding responsibility.	
(FY 2023 Baseline: \$69,071 thousand)	
2) Ground-Based Midcourse (GMD) Program	\$-23,904
-\$23,904 decrease reflects updated cost estimates in Performance Based Logistics (PBL) based on the competitively awarded GMD System Integration, Test and Readiness (SITR) and GMD Weapon System (GWS) contracts.	
(FY 2023 Baseline: \$185,564 thousand)	
3) Missile Defense System Radars Program	\$-5,185
-\$5,185 decrease reflects reduction in site sustainment, maintenance for radar systems, facilities, and support equipment.	
(FY 2023 Baseline: \$200,207 thousand)	
FY 2024 Budget Request	\$564,078

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

IV. Performance Criteria and Evaluation Summary:

	<u>FY 2022 Actuals</u>	<u>FY 2023 Enacted</u>	<u>FY 2024 Estimate</u>
1. Operational Support	510,065	541,787	564,078
Aegis Program	77,170	69,071	72,224
Ground-Base Midcourse Program	156,623	185,564	174,789
Missile Defense System Radars Program	190,715	200,207	227,768
THAAD Program	86,557	86,945	89,297
Total Operations and Maintenance, Defense Wide	510,065	541,787	564,078

The MDA Ballistic Missile Defense (BMD) mission is to deliver an enduring, operationally effective and supportable BMD capability to defend the nation, deployed forces, friends and allies.

A. Aegis BMD. The Aegis BMD element of the Missile Defense System capitalizes upon and evolves from the existing U. S. Navy Aegis Weapons System (AWS) and Standard Missile (SM) infrastructures. Aegis BMD provides a forward-deployable, mobile capability to detect and track Ballistic Missiles of all ranges, and the ability to destroy short-range, medium-range, and intermediate-range ballistic missiles in the midcourse phase of flight and shorter range missile in terminal phase. Aegis BMD also provides a long range surveillance and track (LRS&T) capability to the Missile Defense System. By the end of FY 2024, there will be 53 total BMD capable ships requiring maintenance support.

B. Ground-Based Midcourse (GMD). The GMD fielded weapon system is under the command of U.S. Northern Command (USNORTHCOM) and is operated by Soldiers from the 100th Missile Defense Brigade (five crews) headquartered at Schriever Space Force Base (SSFB), Colorado, and its 49th Missile Defense Battalion (five crews) at Fort Greely, Alaska (FGA) and the 100th Missile Defense Brigade Det. 1 (7 Soldiers) at Vandenberg Space Force Base (VSFB), California. In FY 2024, MDA will support operationally deployed Ground-Based Interceptors located at FGA and VSFB. Each Ground-Based Interceptor delivers a single Exo-atmospheric Kill Vehicle (EKV) to defeat threat warheads in space during the midcourse phase of the ballistic trajectory. The GMD Fire Control System consists of redundant fire control nodes at FGA (two each) and the Missile Defense Integration and Operations Center (MDIOC) (two each) at SSFB. In-Flight Interceptor Communications System (IFICS) Data Terminals (IDTs) are currently located at FGA (two each); VSFB (two each); Eareckson Air Station, Alaska (EAS); and Fort Drum, New York.

C. Missile Defense Systems Radars Program. The MDA continues to provide sustainment support for twelve Army Navy/Transportable Radar Surveillance and Control-2 (AN/TPY-2) radars. Five Forward Based Mode (FBM) radars at fixed radar sites operate continuously 24 hours a day, 7 days a week, 365 days a year. Seven radars operate in Terminal Mode (TM) when integrated with the THAAD battery. Two of the seven TM radars are permanently stationed at OCONUS sites. The operational tempo is met utilizing military personnel and contractor logistics support (CLS) to operate and maintain the radars. FY 2024 includes AN/TPY-2 operations and maintenance execution and Depot Level Maintenance (DLM) for Cooling Equipment Unit (CEU) and continuation of Gallium Nitride (GaN) Transmit/Receive Integrated Microwave Module (T/RIMM) sustainment due to vehicle life expectancy, obsolescence improvements, and high operational tempo use in corrosive environments. MDA also provides contributions to sustainment unique to the MDA Missile Defense mission for the five Upgraded Early Warning

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IV. Performance Criteria and Evaluation Summary:

Radars (UEWRs) and COBRA DANE radar that are in the U.S. Space Force's Global Command, Control, Communication, Intelligence (C3I) & Early Warning program, who is the responsible organization for the UEWR and COBRA DANE force structure, radar operators and maintainers, and operations and maintenance funding

D. Terminal High Altitude Area Defense (THAAD). Army force structure for THAAD is currently set at seven batteries with six launchers operated by 95 Soldiers. The battery is organized to conduct 120-day deployments (45 days of entry operations and 75 days of 17-hour/day combat operations). During actual deployments, batteries have been operating at a 24 hours a day, 7 days a week, 365 days a year operational tempo, with increased CLS costs. This increased tempo has been sustained through the increase of appropriate attachments and support. Additionally, increasing OCONUS stationing of THAAD Batteries by the Army drives an increase in costs for deployed contractor support, increased transportation costs for spares/repair parts and increased quantities of stocks to support separate locations.

**Missile Defense Agency
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V. Personnel Summary:

	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>Change FY 2022/ FY 2023</u>	<u>Change FY 2023/ FY 2024</u>
Contractor FTEs (Total)	790	830	830	40	0

Personnel Summary Explanations:

No change from FY 2023 to FY 2024.

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VI. OP 32 Line Items as Applicable (Dollars in thousands):

	FY 2022 Program	Change from FY 2022 to FY 2023		FY 2023 Program	Change from FY 2023 to FY 2024		FY 2024 Program
		Price Growth	Program Growth		Price Growth	Program Growth	
308 TRAVEL OF PERSONS	150	3	-148	5	0	-5	0
0399 TOTAL TRAVEL	150	3	-148	5	0	-5	0
401 DLA ENERGY (FUEL PRODUCTS)	1,593	-119	-223	1,251	-144	186	1,293
0499 TOTAL DEFENSE WORKING CAPITAL FUND SUPPLIES AND MATERIALS	1,593	-119	-223	1,251	-144	186	1,293
611 NAVY SURFACE WARFARE CTR	0	0	0	0	0	486	486
677 DISA TELECOMM SVCS - REIMBURSABLE	130	0	3,787	3,917	255	-3,810	362
0699 TOTAL OTHER FUND PURCHASES	130	0	3,787	3,917	255	-3,324	848
771 COMMERCIAL TRANSPORT	7,443	156	1,814	9,413	188	-4,933	4,668
0799 TOTAL TRANSPORTATION	7,443	156	1,814	9,413	188	-4,933	4,668
913 PURCHASED UTILITIES (NON-FUND)	2,376	50	-2,358	68	1	2,954	3,023
914 PURCHASED COMMUNICATIONS (NON-FUND)	2,052	43	-1,970	125	3	887	1,015
915 RENTS (NON-GSA)	261	5	-23	243	5	7	255
920 SUPPLIES & MATERIALS (NON-FUND)	64,448	1,353	-22,502	43,299	953	30,415	74,667
922 EQUIPMENT MAINTENANCE BY CONTRACT	284,320	5,971	21,789	312,080	6,866	-29,938	289,008
923 FACILITIES SUST, REST, & MOD BY CONTRACT	39,705	834	16,013	56,552	1,244	8,239	66,035
925 EQUIPMENT PURCHASES (NON-FUND)	1,745	37	-1,205	577	13	-590	0
930 OTHER DEPOT MAINTENANCE (NON-FUND)	85,898	1,804	5,901	93,603	2,059	11,300	106,962
932 MGT PROF SUPPORT SVCS	0	0	1,279	1,279	28	-1,307	0
933 STUDIES, ANALYSIS & EVAL	0	0	0	0	0	1,501	1,501
934 ENGINEERING & TECH SVCS TRAINING AND LEADERSHIP DEVELOPMENT (OTHER CONTRACTS)	1,700	36	-1,076	660	15	-675	0
936 EQUIPMENT CONTRACTS	9,275	195	-9,470	0	0	6,006	6,006
984 OTHER INTRA-GOVT PURCH	25	1	98	124	3	-20	107
987 OTHER SERVICES	8,430	177	362	8,969	197	-476	8,690
989 IT CONTRACT SUPPORT SERVICES	222	5	9,395	9,622	212	-9,834	0
990 IT CONTRACT SUPPORT SERVICES	292	6	-298	0	0	0	0

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VI. OP 32 Line Items as Applicable (Dollars in thousands):

	FY 2022 <u>Program</u>	<u>Change from FY 2022 to FY 2023</u>		FY 2023 <u>Program</u>	<u>Change from FY 2023 to FY 2024</u>		FY 2024 <u>Program</u>
		<u>Price Growth</u>	<u>Program Growth</u>		<u>Price Growth</u>	<u>Program Growth</u>	
0999 TOTAL OTHER PURCHASES	500,749	10,517	15,935	527,201	11,599	18,469	557,269
9999 GRAND TOTAL	510,065	10,557	21,165	541,787	11,898	10,393	564,078

**Missile Defense Agency
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<u>Appropriation/Fund</u>	<u>FY 2022</u> <u>Actuals</u>	<u>FY 2023</u> <u>Enacted</u>	<u>FY 2024</u> <u>Estimate</u>
I. Management & Professional Support Services			
FFRDC Work	0	38	0
Non-FFRDC Work	<u>0</u>	<u>1,241</u>	<u>0</u>
Subtotal	0	1,279	0
II. Studies, Analysis & Evaluations			
FFRDC Work	0	0	45
Non-FFRDC Work	<u>0</u>	<u>0</u>	<u>1,456</u>
Subtotal	0	0	1,501
III. Engineering & Technical Services			
FFRDC Work	49	20	0
Non-FFRDC Work	<u>1,651</u>	<u>640</u>	<u>0</u>
Subtotal	1,700	660	0
TOTAL			
FFRDC Work	49	58	45
Non-FFRDC Work	<u>1,651</u>	<u>1,881</u>	<u>1,456</u>
GRAND Total	1,700	1,939	1,501
Reimbursable	0	0	0

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

Explanation of Funding Changes (FY 2022 to FY 2023):

The GMD Program increase in Management and Professional Support Services provides technical and management advisory support required to ensure GMD System Readiness while transition Operations and Sustainment for the GMD Weapon System.

The Missile Defense System Sensors Program decrease in Engineering and Technical Services reflects a reduction in engineering tasks associated with technical and management advisory support for operations, sustainment, and radar site maintenance of the AN/TPY-2, COBRA DANE and UEWR radars after leveling of site-specific maintenance due to efficiencies in Contractor Logistics Support (CLS) efforts of the radar systems, facilities, and support equipment.

Explanation of Funding Changes (FY 2023 to FY 2024):

The GMD Program decrease in Management and Professional Support Services reflects completion of these services and no longer requires funding.

The Missile Defense System Sensors Program increase in Studies, Analysis, and Evaluations provides planning and integration of operations and sustainment tasks to support Contractor Logistics Support (CLS) efforts in site-facilities planning and operation and maintenance of radar systems, facilities, and support equipment for the AN/TPY-2 radar fleet.

The Missile Defense System Sensors Program decrease in Engineering and Technical Services reflects a reduction in engineering tasks associated with technical and management advisory support for operations, sustainment, and radar site maintenance of the AN/TPY-2, COBRA DANE and UEWR radars after leveling of site-specific maintenance due to efficiencies in Contractor Logistics Support (CLS) efforts of the radar systems, facilities, and support equipment.

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

Missile Defense Agency

	<u>US Direct Hire</u>	<u>Foreign National</u>		<u>Total</u>
		<u>Direct Hire</u>	<u>Indirect Hire</u>	
Summary				
1. FY 2022 FTEs	2,175	0	0	2,175
2. FY 2023 FTEs	2,143	0	0	2,143
3. FY 2024 FTEs	2,128	0	0	2,128
MDA - Operation & Maintenance (O&M)				
1. FY 2022 FTEs	0	0	0	0
2. FY 2023 FTEs	0	0	0	0
3. FY 2024 FTEs	0	0	0	0
MDA - Research, Development, Test and Evaluation (RDT&E)				
1. FY 2022 FTEs	2,175	0	0	2,175
Civilian FTE change	-32			-32
2. FY 2023 FTEs	2,143	0	0	2,143
Civilian FTE change	-15			-15
3. FY 2024 FTEs	2,128	0	0	2,128
MDA - Defense Working Capital Fund (DWCF)				
1. FY 2022 FTEs	0	0	0	0
2. FY 2023 FTEs	0	0	0	0
3. FY 2024 FTEs	0	0	0	0
4. SUMMARY				
	<u>US Direct Hire</u>	<u>Foreign National</u>		<u>Total</u>
		<u>Direct Hire</u>	<u>Indirect Hire</u>	
FY 2022				
RDT&E Total	2,175	0	0	2,175
Direct Funded	2,175	0		2,175
Total Component	2,175	0	0	2,175
Direct Funded	2,175	0	0	2,175
Reimbursable Funded	0	0	0	0

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

4. SUMMARY

	<u>US Direct Hire</u>	<u>Foreign National</u>		<u>Total</u>
		<u>Direct Hire</u>	<u>Indirect Hire</u>	
FY 2023				
RDT&E Total	2,143	0	0	2,143
Direct Funded	2,143	0	0	2,143
Total Component	2,143	0	0	2,143
Direct Funded	2,143	0	0	2,143
Reimbursable Funded	0	0	0	0
FY 2024				
RDT&E Total	2,128	0	0	2,128
Direct Funded	2,128	0	0	2,128
Total Component	2,128	0	0	2,128
Direct Funded	2,128	0	0	2,128
Reimbursable Funded	0	0	0	0

5. Summary of Changes

Research, Development, Test and Evaluation (RDT&E)

Change from FY 2022 to FY 2023:

MDA's direct RDT&E funded FTE decrease reflects continued implementation of the FY 2021 Defense Wide Review (DWR) Reductions, which will be fully realized in FY 2024.

Change from FY 2023 to FY 2024:

MDA's direct RDT&E funded FTE decrease reflects continued implementation of the FY 2021 Defense Wide Review (DWR) Reductions, which will be fully realized in FY 2024.

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
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**CONTRACT SERVICES FUNDING
(\$ in Millions)**

Line	By PB/OP-32 Inflation Category Code	FY 2022	FY 2023	FY 2023	FY 2024	FY 2024
		Base & OCO Actuals	Base Enacted	OCO Enacted	Base Request	OCO Request
914	Purchased Communications (Non-Fund)	2	0	0	1	0
	Total 23.3 - Communications, Utilities and Misc. Charges	2	0	0	1	0
932	Mgmt and Professional Support Services	0	1	0	0	0
933	Studies, Analysis, and Evaluation Services	0	0	0	2	0
934	Engineering and Technical Services	2	0	0	0	0
	Total 25.1 - Advisory and Assistance Services	2	1	0	2	0
936	Training and Leadership Development	9	0	0	6	0
989	Other Contracts	0	10	0	0	0
	Total 25.2 - Other Services	9	10	0	6	0
987	Other Intra-Government Purchases	8	9	0	9	0
	Total 25.3 - Other Goods and Services from Federal Sources	8	9	0	9	0
923	Facility Maintenance	40	57	0	66	0
	Total 25.4 - Operation and Maintenance of Facilities	40	57	0	66	0
985	Research and Development Contracts	0	0	0	0	0
	Total 25.5 - Research and Development Contracts	0	0	0	0	0
922	Equipment Maintenance - Contract	284	312	0	289	0
930	Other Depot Maintenance (Non-Fund)	86	94		107	
990	IT Contract Support Services	0	0		0	0
	Total 25.7 - Operation and Maintenance of Equipment	370	406	0	396	0
925	Equipment Purchases (Non-Fund)	2	1	0	0	0
	Total 31.0 - Equipment Purchases (Non-Fund)	2	1	0	0	0
	Total	433	484	0	480	0

Source: Next Generation Resources Management System as of 24 Feb 2023

Numbers may not add due to rounding

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

CONTRACT SERVICES - MANPOWER

Contractor Full-Time Equivalents

Line	By PB/OP-32 Inflation Category Code	FY 2022	FY 2023	FY 2023	FY 2024	FY 2024
		Base & OCO Actuals	Base Enacted	OCO Enacted	Base Request	OCO Request
914	Purchased Communications (Non-Fund)	0	0	0	0	0
	Total 23.3 - Communications, Utilities and Misc. Charges	0	0	0	0	0
932	Mgmt and Professional Support Services	0	3	0	0	0
933	Studies, Analysis, and Evaluation Services	0	0	0	3	0
934	Engineering and Technical Services	0	0	0	0	0
	Total 25.1 - Advisory and Assistance Services	0	3	0	3	0
936	Training and Leadership Development	0	0	0	33	0
989	Other Contracts	34	33	0	0	0
	Total 25.2 - Other Services	34	33	0	33	0
987	Other Intra-Government Purchases	0	0	0	0	0
	Total 25.3 - Other Goods and Services from Federal Sources	0	0	0	0	0
923	Facility Maintenance	0	0	0	0	0
	Total 25.4 - Operation and Maintenance of Facilities	0	0	0	0	0
985	Research and Development Contracts	0	0	0	0	0
	Total 25.5 - Research and Development Contracts	0	0	0	0	0
922	Equipment Maintenance - Contract	562	583	0	583	0
930	Other Depot Maintenance (Non-Fund)	194	211		211	
990	IT Contract Support Services	0	0		0	0
	Total 25.7 - Operation and Maintenance of Equipment	756	794	0	794	0
925	Equipment Purchases (Non-Fund)	0	0	0	0	0
	Total 31.0 - Equipment Purchases (Non-Fund)	0	0	0	0	0
	Total	790	830	0	830	0

Source: Next Generation Resources Management System as of 24 Feb 2023

Numbers may not add due to rounding

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

CONTRACT SERVICES

**Defense-Wide Missile Defense Agency
Operation and Maintenance
Justification Narrative**

Description of Services Financed:

Provides the following Ballistic Missile Defense (BMD) operations and maintenance support:

A. Aegis BMD. Funding provides a wide range of sustainment support activities for deployed Aegis BMD ships and Aegis Ashore facilities including Standard Missile-3 (SM-3), BMD Aegis Weapon System (AWS), and for Aegis Ashore sites. The SM-3 sustainment support program includes the recertification/repair of missiles, installation of software and hardware updates, modeling and simulation and logistics efforts. Also provides missile second destination transportation, transportation ballistic barrier maintenance, spares replenishment and operational fleet support.

The BMD AWS sustainment support program provides technical and engineering services for in-service BMD ships and sites, along with infrastructure maintenance for Missile Defense System platforms executing BMD test missions, to ensure the in-service BMD AWS baselines maintain the directed operational availability. BMD AWS sustainment includes: BMD Engineering Agent technical support and operational analysis for BMD units engineering reach-back services supporting casualty correction, issues, and improvements maintenance, certification, and delivery of BMD AWS computer program updates to the Fleet Aegis software maintenance corrections in the common source library test site infrastructure and maintenance integrated logistics support of BMD unique parts, technical documentation review, and implementation of updated maintenance concepts diminishing manufacturing sources, and obsolete materiel surveillance, identification, and resolution.

Funding for Aegis Ashore provides support for the following:

- Operation and maintenance of Aegis Weapons System
- Facilitate Data Management efforts:
 - o Oversight for collection, storage, and distribution of technical data and documentation required for sustainment of the Aegis Ashore sites
 - o Retention and maintenance of the established data repository

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
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B. Ground-Based Midcourse. Funding provides sustainment support for operational Ground-Based Interceptors based at Fort Greely, AK and Vandenberg SFB, CA; as well as operational weapon system nodes at Schriever SFB, CO; Fort Drum, NY; and Eareckson AS, AK. Funding also ensures GMD assets are properly maintained and crews are trained to meet Combatant Commanders needs including: Weapon system sustainment, equipment maintenance, and sustaining engineering; mission operations support, network operations and defense, and integrated logistics support; Base Operations Support (BOS), facility maintenance and repairs, facility restoration and modernization, communication support, and utilities at Vandenberg SFB, CA, Fort Drum, NY and Eareckson AS, AK; configuration management and control for the fielded weapon system. Funding provides BOS, facility maintenance and repairs, facility restoration and modernization, and communication support at Fort Greely, AK. Funding also provides utilities for facilities that GMD occupies in the Fort Greely, AK cantonment area only and not utilities in the Missile Defense Complex.

C. Missile Defense System Radars. Sustainment support for twelve Army Navy/Transportable Radar Surveillance and Control-2 (AN/TPY-2) Forward Based Mode (FBM) and Terminal High Altitude Area Defense (THAAD) configured Terminal Mode (TM) radars to include supply support, repair, maintenance, modernization, transportation, parts, storage, special tools and test equipment, recurring and delta training, technical interface, training device maintenance, engineering support, interactive electronic technical manual (IETM) updates, software user guide updates, software revision certification, and Depot Level Maintenance (DLM) for missile defense unique equipment. Funding also provides Cooling Equipment Unit (CEU) refurbishment at Letterkenny Army Depot (LEAD) and continuation of Gallium Nitride (GaN) Transmit/Receive Integrated Microwave Module (T/RIMM) sustainment to replace obsolete equipment, incorporate updates to servers, and enhance radar capabilities. Funding provides contributions to sustainment support for items unique to the Missile Defense mission for the five Upgraded Early Warning Radars (UEWRs) and COBRA DANE radar that are in the U.S. Space Force's Global Command, Control, Communication, Intelligence (C3I) & Early Warning program, who is the responsible organization for the UEWR and COBRA DANE force structure, radar operators and maintainers, and operations and maintenance funding.

D. Terminal High Altitude Area Defense (THAAD). MDA is responsible for the sustainment support for the THAAD missile defense unique and developmental items, while the U. S. Army is responsible for the operations and sustainment of the common items. Funding provides sustainment support for all fielded THAAD Batteries, ensures THAAD assets are properly maintained and crews are trained to meet Combatant Commanders needs including: 1.) Field and sustainment level supply, maintenance, modernization, hazardous materials/waste disposal, and depot-level maintenance for THAAD missile defense unique equipment. 2.) Spares, Interceptor spares, repair parts, and maintenance capability at the location of each THAAD battery. 3.) Engineering support for the THAAD missile defense unique equipment. 4.) Deployment software support for fielded software, to include: deficiency report review, error correction, incremental capability improvements, and hardware/systems interface compatibility maintenance. 5.) Missile transportation and handling from the missile storage location to the site of the THAAD launchers. 6.) Interactive Electronic Technical Manual (IETM) updates, software users' guide updates, and software revision certification. 7.) Maintenance and upkeep for all THAAD training devices. 8.) Supply, maintenance and transportation support for all new equipment training, and sustainment training relating to design changes and equipment upgrades.

Reporting Limitations:

N/A

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

Summary of Increases/Decreases:

A. AEGIS Program:

1. Increase provides repair/recertification of SM-3 Block IA and IB All Up Rounds (AURs) for the growing quantity of delivered missiles and to meet projected fleet requirements.
2. Increase provides BMD 4.x software changes in support of Mission Planner (MP) console upgrade and Mission and Threat Database re-architecture.
3. Increase provides additional spares to extend deployment of SM-3 Block IA Rounds for an additional 4 years to prevent significant reduction in Fleet missile capacity and global BMD capability.
4. Decrease reflects a reduction in number of BMD 5.x Software Change Requests from 1,050 to 800.
5. Decrease reflects a reduction in required lab hours at Combat System Engineering Development Site (CSEDS) and SCSC Wallops Island test sites in support of Aegis BMD baselines.
6. Decrease reflects transition of Aegis Ashore Poland operations to Navy funding responsibility.

B. Ground-Based Midcourse Program:

1. Increase provides urgently needed facility and infrastructure repairs at Fort Greely, AK and Vandenberg Space Force Base (VSFB), CA to include Heating, Ventilation and Air Conditioning (HVAC) and electrical repairs and upgrades, Environmental Control Unit (ECU) replacements, missile field paving and drainage improvements. Facilities targeted for improvement are aging support and processing facilities critical to the GMD mission. These repairs and improvements are required to meet mission readiness, equipment availability, quality of life standards, and safety requirements.
2. Increase provides Ground-Based Midcourse Defense (GMD) site power upgrades to include Uninterruptable Power Supply (UPS), Generator, Secondary Unit Substation repairs and replacements, and power resiliency measures. These improvements are required to ensure GMD system availability and missile defense readiness for the Warfighter.
3. Decrease reflects updated cost estimates in Performance Based Logistics (PBL) based on the competitively awarded GMD System Integration, Test and Readiness (SITR) and GMD Weapon System (GWS) contracts.

C. Missile Defense Systems Radars Program:

1. Increase procures Gallium Nitride (GaN) Transmit Receive Integrated Microwave Modules (TRIMM) spares to support the modernization of the AN/TPY-2 radar fleet; replaces obsolete Gallium Arsenide (GaAs) TRIMM inventory and provides mission-critical and fleet spares. These efforts maintain inventories at radar sites to reduce radar downtime and provide optimum operational capability.
2. Increase provides AN/TPY-2 Cooling Equipment Unit (CEU) Depot Level Maintenance (DLM) to address obsolescence and maintain the reliability of the radar systems.
3. Decrease reflects reduction in site sustainment, maintenance for radar systems, facilities, and support equipment.

D. THAAD Program:

**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

1. Increase reflects updated cost estimates for THAAD Battery sustainment.

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**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

(Dollars in Thousands)

Appropriation/Fund: RDT&E (0400) **FY 2022** **FY 2023** **FY 2024**

1. Management & Professional Support Services				
FFRDC Work	932	5,068	6,269	5,906
Non-FFRDC Work	932	<u>163,866</u>	<u>202,686</u>	<u>190,963</u>
Sub-Total		168,934	208,555	196,869
2. Studies, Analysis & Evaluations				
FFRDC Work	933	0	1,173	1,044
Non-FFRDC Work	933	<u>0</u>	<u>37,928</u>	<u>33,752</u>
Sub-Total		0	39,101	34,796
3. Engineering & Technical Services				
FFRDC Work	934	12,599	10,311	11,193
Non-FFRDC Work	934	<u>407,382</u>	<u>333,385</u>	<u>361,899</u>
Sub-Total		419,981	343,696	373,092
TOTAL		588,915	591,752	604,757
FFRDC Work		17,667	17,753	18,143
Non-FFRDC Work		571,248	573,999	586,614

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**Missile Defense Agency
Operation and Maintenance, Defense-Wide
Fiscal Year (FY) 2024 Budget Estimates**

Fiscal Year (FY) 2024 Budget Estimates
PB24
(\$ in Thousands)

	Method of Accomplishment	Weapon System	FY 2022	FY 2023	FY 2024
Operations and Maintenance Funding					
	Contractor Logistics Support (CLS)	AN/TPY-2 Radar	-	-	-
		Ballistic Missile Defense	15,305	15,610	15,857
		Standard Missile-3	18,602	14,594	20,479
		THAAD	25,301	25,455	23,117
	Contractor Logistics Support (CLS) Total		59,208	55,659	59,453
	Interim Contractor Support	THAAD	1,306	672	772
	Interim Contractor Support		1,306	672	772
		THAAD	1,998	7,760	7,848
	Inter-Service Total		1,998	7,760	7,848
	Organic	AN/TPY-2 Radar	3,763	10,114	19,768
		Ballistic Missile Defense	2,159	2,201	2,245
		THAAD	112	112	49
	Organic Total		6,034	12,427	22,062
	Other Contract	THAAD	22,198	17,085	20,934
	Other Contract Total		22,198	17,085	20,934
Total Operations and Maintenance Funding			90,744	93,603	111,069
Total MDA Depot Maintenance Program			90,744	93,603	111,069

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Missile Defense Agency

Fiscal Year 2024

President's Budget Submittal

Military Construction Exhibit



March 2023

**MISSILE DEFENSE AGENCY
FY 2024 MILITARY CONSTRUCTION
PRESIDENT'S BUDGET SUBMITTAL
DESCRIPTIVE SUMMARIES**

(\$ in Thousands)

<u>Program</u>	<u>Authorization</u>	<u>Appropriation</u>
Major Construction	147,975	147,975
Unspecified Minor Construction	0	0
MILCON Planning & Design	<u>1,035</u>	<u>1,035</u>
TOTAL MILITARY CONSTRUCTION	149,010	149,010

**MISSILE DEFENSE AGENCY
FY 2024 MILITARY CONSTRUCTION
PROJECT SUMMARY
BY LOCATION**

(\$ in Thousands)

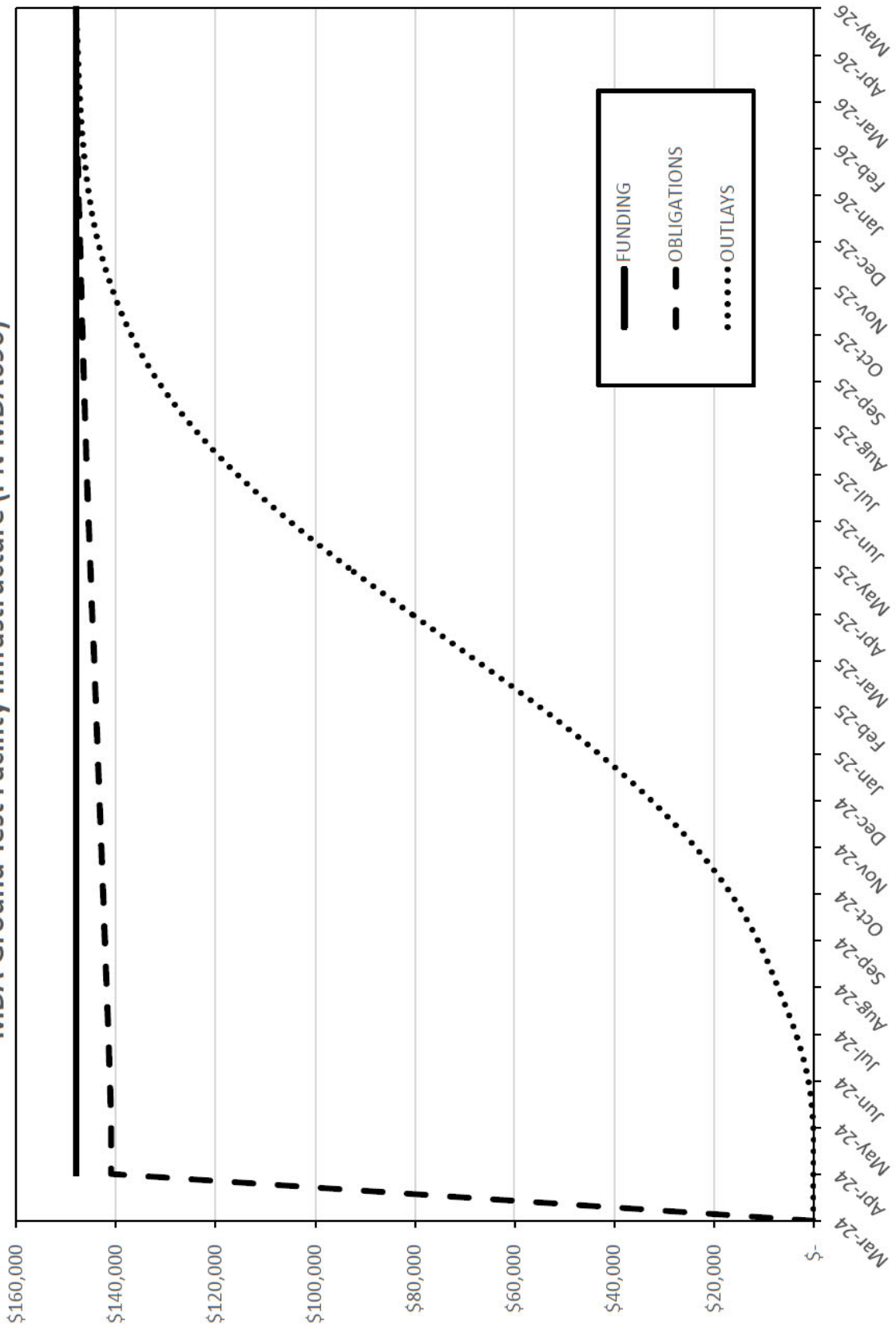
<u>State/Installation/Project</u>	<u>Auth Request</u>	<u>Approp Request</u>	<u>New/ Current Mission</u>	<u>Page No.</u>
Major Construction				
Alabama				
Redstone Arsenal Ground Test Facility Infrastructure	147,975	147,975	C	
Unspecified Minor Construction	0	0		
MILCON Planning and Design	<u>1,035</u>	<u>1,035</u>		
TOTAL MILITARY CONSTRUCTION	149,010	149,010		

1. COMPONENT MDA		FY 2024 MILITARY CONSTRUCTION PROJECT DATA			2. DATE Feb 2023	
3. INSTALLATION AND LOCATION Redstone Arsenal, Alabama			4. PROJECT TITLE Ground Test Facility Infrastructure			
5. PROGRAM ELEMENT 0603914C		6. CATEGORY CODE 31071		7. PROJECT NUMBER MDA 690		8. PROJECT COST (\$000) 147,975
9. COST ESTIMATES						
ITEM		U/M (M/E)	QUANTITY		UNIT COST	COST (\$000)
<u>PRIMARY FACILITIES</u>						
Data Center Conversion (13131)		SM(SF)	2551.6 (27,465)		1,807	87,964 (49,621)
Laboratory Conversion (31071)		SM(SF)	5295.5 (57,000)		257	(14,670)
Administrative Facilities Renovation (61050)		SM(SF)	7456.0 (80,256)		174	(13,957)
Central Plant Building Expansion (89120)		SM(SF)	1676.1 (18,042)		423	(7,639)
Cyber Security Measures		LS	--		--	(2,077)
<u>SUPPORTING FACILITIES</u>						
Mechanical Systems		LS	--		--	43,745 (9,232)
Electrical Service		LS	--		--	(10,752)
Emergency Standby Generators & switchgear		LS	--		--	(17,534)
Utilities - Water, Sewer, Gas		LS	--		--	(2,068)
Site Communications		LS	--		--	(1,624)
Site Improvements/Demo		LS	--		--	(1,092)
Paving, walks, & curbs/gutters		LS	--		--	(1,443)
<u>SUBTOTAL</u>						
CONTINGENCY PERCENT (5.0%)						131,709 6,585
TOTAL CONTRACT COST						138,294
SIOH (6.5%)						8,989
DDC (0.5%)						691
TOTAL REQUEST						147,975
TOTAL REQUEST ROUNDED						148,000
INSTALLED EQPT-OTHER APPROPRIATIONS						(198,618)
10. DESCRIPTION OF PROPOSED CONSTRUCTION:						
<p>Convert existing administrative space in Von Braun IV on Redstone Arsenal to data center and Research, Development, Test, and Evaluation (RDT&E) testing laboratories for the Missile Defense Agency (MDA) Missile Defense System mission. The existing facility is a multi-story reinforced concrete and structural steel building on concrete footings, pre-cast wall panels, and build-up roofs. Required functional area improvements include data center conversion/computer operations, RDT&E laboratory space, administrative space, meeting rooms, access control, break rooms, and storage areas. Data center conversion includes new uninterruptible power supply, flooring, air handling units, heating, ventilation, and air conditioning controls & commissioning, chilled water distribution, power distribution units, switchgear, static transfer switches, overhead busway, and fire protection. New exterior stairwells and a one-story building expansion are required to support the electrical gear for the data center. Cyber-security measures will include Facility Related Control Systems for Electronic Security System, Building Automation System, Electric Power Management System, Lighting Control, and Fire Alarm / Mass Notification Systems.</p> <p>Supporting facilities includes high efficiency mechanical systems, electrically-driven chillers, fire pumps, electrical supply and distribution, and standby generators for N+1 redundancy for mission critical loads. Also includes water, domestic and storm sewers, electrical substation, gas and electric services; fire protection and alarms systems; connectivity to telecommunications network and distributed service; modification of utility yard access roads; chilled water distribution; and other site improvements. Accessibility will be provided in accordance with Americans with Disabilities Act - Architectural Barriers Act guidelines.</p>						

1. COMPONENT MDA	FY 2024 MILITARY CONSTRUCTION PROJECT DATA		2. DATE Feb 2023
3. INSTALLATION AND LOCATION Redstone Arsenal, Alabama		4. PROJECT TITLE Ground Test Facility Infrastructure	
5. PROGRAM ELEMENT 0603914C	6. CATEGORY CODE 31071	7. PROJECT NUMBER MDA 690	8. PROJECT COST (\$000) 147,975
10. DESCRIPTION OF PROPOSED CONSTRUCTION: (cont.) <p>Antiterrorism force protection measures include building standoff distances, lighting, bollards, control gates and berms.</p> <p>The project will meet new building design and construction criteria specified in Unified Facilities Criteria (UFC) High Performance and Sustainable Building Requirements, UFC 1-200-02, dated 7 June 2018. As required by UFC 1-200-02, the sustainable design and construction features will be third party certified.</p>			
11. REQUIREMENT: 182,763 SF ADEQUATE: -0- SUBSTANDARD: -0- <p><u>PROJECT:</u> Convert existing space to new testing laboratories and supporting data center and administrative space to relocate the MDA Advanced Research Center (ARC) from leased space to a secure location on Redstone Arsenal; co-locate MDA ground test functions; and consolidate MDA data center operations.</p> <p><u>REQUIREMENT:</u> Provide a more operationally secure and efficient test infrastructure environment to support Missile Defense System testing. Project constructs facilities meeting antiterrorism/force protection standards prescribed in UFC 04-010-01 and in line with the Department of Defense (DoD) objective of reducing its presence in potentially vulnerable off post facilities. In addition, the MDA goal is to reduce operating expenses by housing the majority of the MDA test and development/analysis operations in government-owned facilities. This project will collocate MDA's Eastern data centers to meet DoD mandates for centralized information technology services and cybersecurity.</p> <p><u>CURRENT SITUATION:</u> The MDA hub for ground testing and analysis currently resides off-post in lease space which can pose physical and cybersecurity risks. The facility has had compliance issues with current codes and standards and is not optimally configured for current missions. MDA currently has data centers dispersed across three (3) buildings in Huntsville, AL. The dispersed nature of the facilities creates inefficiencies for conducting test activities including large amounts of data transfer and is not in compliance with Federal Information Technology Reform Act for Data Center consolidation.</p> <p><u>IMPACT IF NOT PROVIDED:</u> Critical Missile Defense System assets will continue to operate in a high risk environment not conducive to efficient operations. MDA will have to invest substantial funds into the ARC lease facility in order to address end-of-life infrastructure and cyber security concerns and to renovate the facility to meet mission requirements. The renovation will require a shutdown period, potential swing space and temporary equipment, all adversely impacting testing and fielding schedules. Without this project, MDA will not be able to support the current Integrated Master Test Plan due to inability to implement the Continuous Ground Test initiative, which allows MDA to conduct continuous development, integration, and agile testing.</p> <p><u>ADDITIONAL INFORMATION:</u> Cost estimates are based on Tri-Service Automated Cost Engineering Systems MII estimates. This project has been coordinated with the installation Garrison and includes physical security measures coordinated with MDA and Garrison security forces and DoD regulations. This project is the most cost-effective method to satisfy the requirement and meets the DoD goal of minimizing MDA lease space. Sustainable principles will be integrated into the design, development, and construction of the project in accordance with Executive Order 13834 and other applicable laws and executive orders.</p>			

1. COMPONENT MDA	FY 2024 MILITARY CONSTRUCTION PROJECT DATA	2. DATE Feb 2023																																																
4. INSTALLATION AND LOCATION Redstone Arsenal, Alabama		4. PROJECT TITLE Ground Test Facility Infrastructure																																																
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		8. PROJECT COST (\$000) 147,975																																																
11. REQUIREMENT: (cont.)																																																		
<p>All required National Environmental Policy Act analyses will be completed prior to the start of construction.</p> <p>This project has been evaluated for compliance with Executive Orders 11988 Flood Plain Management and 11990 Protection of Wetlands and the Flood Plain Management Guidelines of U.S. Water Resources Council. The Project is not sited in the 100-year flood plain and will be sited to preserve and enhance the natural and beneficial values of wetlands; and minimize the destruction, loss or degradation of wetlands.</p>																																																		
12. SUPPLEMENTAL DATA:																																																		
<p>A. Estimated Execution Data</p> <table style="width:100%; border:none;"> <tr> <td style="width:70%;">(1) Acquisition Strategy:</td> <td style="text-align:right;">Design-Bid-Build</td> </tr> <tr> <td colspan="2">(2) Design Data</td> </tr> <tr> <td style="padding-left:20px;">(a) Design or request for Proposal (RFP) Started:</td> <td style="text-align:right;">Apr 2022</td> </tr> <tr> <td style="padding-left:20px;">(b) Percent Design Complete As Of January 2023:</td> <td style="text-align:right;">35%</td> </tr> <tr> <td style="padding-left:20px;">(c) Design or RFP Complete:</td> <td style="text-align:right;">Sep 2023</td> </tr> <tr> <td style="padding-left:20px;">(d) Total Design Cost(\$000):</td> <td style="text-align:right;">13,500</td> </tr> <tr> <td style="padding-left:20px;">(e) Energy Study and/or Life Cycle Analysis performed</td> <td style="text-align:right;">Yes</td> </tr> <tr> <td style="padding-left:20px;">(f) Standard or definitive design used?</td> <td style="text-align:right;">No</td> </tr> <tr> <td colspan="2">(3) Construction Data:</td> </tr> <tr> <td style="padding-left:20px;">(a) Contract Award</td> <td style="text-align:right;">Apr 2024</td> </tr> <tr> <td style="padding-left:20px;">(b) Construction Start</td> <td style="text-align:right;">May 2024</td> </tr> <tr> <td style="padding-left:20px;">(c) Construction Completion</td> <td style="text-align:right;">May 2026</td> </tr> </table> <p>B. Equipment associated with this project which will be provided from other appropriations:</p> <table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:left;">Equipment Nomenclature</th> <th style="text-align:left;">Procuring Appropriation</th> <th style="text-align:left;">FY Appropriated or Requested</th> <th style="text-align:right;">Cost \$(000)</th> </tr> </thead> <tbody> <tr> <td>Facility Furnishings</td> <td>RDT&E</td> <td>FY 2026</td> <td style="text-align:right;">8,982</td> </tr> <tr> <td>Security Equipment</td> <td>RDT&E</td> <td>FY 2026</td> <td style="text-align:right;">1,650</td> </tr> <tr> <td>Information Technology</td> <td>RDT&E</td> <td>FY 2026</td> <td style="text-align:right;">12,347</td> </tr> <tr> <td>Test Infrastructure Equipment</td> <td>RDT&E</td> <td>FY 2025/2026/2027</td> <td style="text-align:right;"><u>175,639</u></td> </tr> <tr> <td style="padding-left:20px;">(Procurement/Relocation)</td> <td></td> <td></td> <td style="text-align:right;">198,618</td> </tr> </tbody> </table>			(1) Acquisition Strategy:	Design-Bid-Build	(2) Design Data		(a) Design or request for Proposal (RFP) Started:	Apr 2022	(b) Percent Design Complete As Of January 2023:	35%	(c) Design or RFP Complete:	Sep 2023	(d) Total Design Cost(\$000):	13,500	(e) Energy Study and/or Life Cycle Analysis performed	Yes	(f) Standard or definitive design used?	No	(3) Construction Data:		(a) Contract Award	Apr 2024	(b) Construction Start	May 2024	(c) Construction Completion	May 2026	Equipment Nomenclature	Procuring Appropriation	FY Appropriated or Requested	Cost \$(000)	Facility Furnishings	RDT&E	FY 2026	8,982	Security Equipment	RDT&E	FY 2026	1,650	Information Technology	RDT&E	FY 2026	12,347	Test Infrastructure Equipment	RDT&E	FY 2025/2026/2027	<u>175,639</u>	(Procurement/Relocation)			198,618
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Spending Plan MDA Ground Test Facility Infrastructure (PN MDA690)



PROJECT SPENDING PLAN

PROJECT: MDA Ground Test Facility Infrastructure (GTFI) (PN MDA690)

LOCATION: Redstone Arsenal, AL

PROJECT PA: 147,975

EXECUTION YEAR: FY24

rev: 09 February 2023

All costs in thousands (\$000)

Month-Year	FUNDING (Note 1)		OBLIGATIONS (Note 2)		OUTLAYS (Note 3)	
	Enacted	Cumulative	Obligated	Cumulative	Monthly	Cumulative
Feb-24	-	-	-	-	-	-
Mar-24	-	147,975	-	-	-	-
Apr-24	147,975	147,975	140,961	140,961	-	-
May-24	-	147,975	-	140,961	-	-
Jun-24	-	147,975	225	141,186	1,000	1,000
Jul-24	-	147,975	325	141,511	2,500	3,500
Aug-24	-	147,975	325	141,836	3,600	7,100
Sep-24	-	147,975	350	142,186	4,000	11,100
Oct-24	-	147,975	350	142,536	5,400	16,500
Nov-24	-	147,975	350	142,886	7,100	23,600
Dec-24	-	147,975	350	143,236	8,800	32,400
Jan-25	-	147,975	375	143,611	10,500	42,900
Feb-25	-	147,975	375	143,986	11,800	54,700
Mar-25	-	147,975	375	144,361	12,800	67,500
Apr-25	-	147,975	375	144,736	13,000	80,500
May-25	-	147,975	375	145,111	12,800	93,300
Jun-25	-	147,975	350	145,461	11,800	105,100
Jul-25	-	147,975	350	145,811	10,500	115,600
Aug-25	-	147,975	300	146,111	8,800	124,400
Sep-25	-	147,975	300	146,411	7,100	131,500
Oct-25	-	147,975	300	146,711	5,400	136,900
Nov-25	-	147,975	255	146,966	3,900	140,800
Dec-25	-	147,975	252	147,218	2,800	143,600
Jan-26	-	147,975	250	147,468	1,800	145,400
Feb-26	-	147,975	225	147,693	1,100	146,500
Mar-26	-	147,975	150	147,843	700	147,200
Apr-26	-	147,975	75	147,918	400	147,600
May-26	-	147,975	56	147,974	400	148,000

Narrative Description of Assumptions

Note 1: Assumes enactment in April 2024.

Note 2: Assumes funds are available for obligation by April 2024.

Note 3: Assumes NTP issued May 2024.

Note 4: Assumes 24 month construction duration from NTP.

Note 5: Assumes normal distribution (bell curve) of construction funds over 24 months.

1. COMPONENT MDA	FY 2024 MILITARY CONSTRUCTION PROJECT DATA			2. DATE Feb 2023	
3. INSTALLATION AND LOCATION Various Worldwide Locations		4. PROJECT TITLE Planning and Design			
5. PROGRAM ELEMENT N/A	6. CATEGORY CODE N/A	7. PROJECT NUMBER N/A	8. PROJECT COST (\$000) 1,035		
9. COST ESTIMATES					
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)
Planning and Design		LS			1,035
SUBTOTAL					1,035
CONTINGENCY PERCENT (0.0%)					0
ESTIMATED CONTRACT COST					1,035
SUPERVISION, INSPECTION & OVERHEAD (0.0%)					0
TOTAL REQUEST					1,035
TOTAL REQUEST (ROUNDED)					1,035
INSTALLED EQPT-OTHER APPROPRIATIONS					(0)
10. DESCRIPTION OF PROPOSED CONSTRUCTION: The funds requested will be used to provide financing for architectural and engineering services and construction design of Missile Defense Agency (MDA) Military Construction projects.					
1. REQUIREMENT: As required <u>REQUIREMENT:</u> These planning and design funds are required to initiate and complete design of facilities in the MDA military construction program including unspecified minor construction projects which are anticipated to arise during FY 2024, and accomplish planning and design for future projects supporting the Missile Defense System with a long lead-time to be included in subsequent MDA Military Construction programs. The Planning and Design funds in FY 2024 are planned to support future major military construction (MILCON): <ul style="list-style-type: none"> \$1.035 million to support design and planning for MILCON Projects at multiple sites on Guam. The MILCON effort will support deployment of an enhanced integrated air and missile defense system for the Defense of Guam from emerging threats in the U.S. Indo-Pacific Command (INDOPACOM) region. 					

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD07 / THAAD
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0603881C, 0604876C	Other Related Program Elements: 0604876C, 0603881C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	573	32	18	11	-	11	31	32	48	48	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	7,289.835	380.722	239.994	216.782	-	216.782	447.080	475.739	643.513	656.384	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	7,289.835	380.722	239.994	216.782	-	216.782	447.080	475.739	643.513	656.384	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	7,289.835	380.722	239.994	216.782	-	216.782	447.080	475.739	643.513	656.384	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	9.710	9.528	11.182	12.336	-	12.336	11.396	11.396	11.051	11.051	Continuing	Continuing
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	12.722	11.898	13.333	19.707	-	19.707	14.422	14.867	13.407	13.675	Continuing	Continuing

Description:

Terminal High Altitude Area Defense (THAAD) is an element of the Terminal Defense Segment (TDS) of the Missile Defense System. THAAD enhances the TDS by deepening, complementing, and extending the Missile Defense System battlespace and capability to engage ballistic targets in the late mid-course and terminal phases of their trajectory. THAAD Army Navy / Transportable Radar Surveillance and Control (AN/TPY-2) radar is a surveillance and targeting sensor providing data to the THAAD system to execute intercept missions. The THAAD system, in conjunction with the fielded Phased Array Tracking Radar to Intercept on Target (PATRIOT) system, provides the TDS for the Missile Defense Agency objective of enhancing the Missile Defense System capability. Five major components [Interceptors, Launchers, AN/TPY-2 Radar, THAAD Fire Control and Communication (TFCC) Tactical Station Groups (TSG), and Peculiar Support Equipment including Missile Round Pallet Transportable] comprise the THAAD system.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD07 / THAAD
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0603881C, 0604876C	Other Related Program Elements: 0604876C, 0603881C
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Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	THAAD	P-5a, P-21	A		573 / 7,289.835	32 / 380.722	18 / 239.994	11 / 216.782	- / -	11 / 216.782
P-40	Total Gross/Weapon System Cost				573 / 7,289.835	32 / 380.722	18 / 239.994	11 / 216.782	- / -	11 / 216.782

*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:

The Fiscal Year (FY) 2022 budget includes Congressional increase of \$129.179 million for 14 additional THAAD interceptors.

The FY 2023 budget includes Congressional increase of \$165.000 million for 15 additional THAAD interceptors.

The decrease from FY 2023 to FY 2024 reflects a decrease in the THAAD Interceptor procurement quantity from eighteen (18) in FY 2023 to eleven (11) in FY 2024.

The FY 2024 budget request includes eleven (11) THAAD Interceptors, Interceptor Obsolescence mitigation efforts, the Stockpile Reliability Program, and THAAD Battery Ground Component obsolescence modifications.

The Missile Defense Agency (MDA) continues to successfully use a "synergy" lot buy approach to THAAD Interceptor procurement. This approach entails awarding a contract that includes an option for the following fiscal year funding. By utilizing this approach, MDA will achieve savings in material costs in multiple fiscal years. This will result in a higher Interceptor quantity buy at a lower average unit price than if the lot buys were not combined.

Interceptor unit costs are heavily dependent on the total quantity being procured in a specific buy and inflation rates. The interceptor unit costs increased from FY 2022 to FY 2024 due to lower quantities and loss of economy of scale.

Interceptor unit costs vary from year to year based on the quantity being procured.

Two (2) of the seven (7) THAAD Batteries delivered to date were funded with Research Development Test and Evaluation in Program Element 0603881C, thus not included in the costs above.

The FY 2021 budget included a Congressional increase of \$76.325 million for the 8th THAAD Battery which was awarded in April 2022 and is currently on schedule for completion and delivery in 3Q FY 2025.

"Procurement Quantity" and "Flyaway Unit Cost" above represent interceptors only, but the "Net Procurement" cost above includes the costs of all hardware. Prior FYs funding included procurement of ground components, which affected the "Gross Weapon System Unit Cost".

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
--	--	--

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)	573	32	18	11	-	11
Gross/Weapon System Cost (\$ in Millions)	7,289.835	380.722	239.994	216.782	-	216.782
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	7,289.835	380.722	239.994	216.782	-	216.782
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	7,289.835	380.722	239.994	216.782	-	216.782

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	12.722	11.898	13.333	19.707	-	19.707

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
8th THAAD Battery	80.012	1	80.012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEMTT Trucks	1.004	30	30.108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interceptor ^(f)	9.710	573	5,563.645	9.528	32	304.910	11.182	18	201.281	12.336	11	135.691	-	-	-	12.336	11	135.691
Launcher ^(f)	8.110	36	291.977	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Equipment	25.943	9	233.491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TFCC Tactical Station Group ^(f)	10.522	8	84.179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	6,283.412	-	-	304.910	-	-	201.281	-	-	135.691	-	-	-	-	-	135.691
<i>Subtotal: Hardware Cost</i>	-	-	6,283.412	-	-	304.910	-	-	201.281	-	-	135.691	-	-	-	-	-	135.691
Support Cost																		
JEON	20.970	2	41.940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Obsolescence and Modifications	36.942	9	332.478	56.722	1	56.722	21.082	1	21.082	62.335	1	62.335	-	-	-	62.335	1	62.335
Production Support & Testing	51.823	9	466.408	16.217	1	16.217	17.631	1	17.631	18.756	1	18.756	-	-	-	18.756	1	18.756
Training	18.400	9	165.597	2.873	1	2.873	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	1,006.423	-	-	75.812	-	-	38.713	-	-	81.091	-	-	-	-	-	81.091
Gross/Weapon System Cost	12.722	573	7,289.835	11.898	32	380.722	13.333	18	239.994	19.707	11	216.782	-	-	-	19.707	11	216.782

Remarks:

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
<p>"Procurement Quantity" above represents interceptors only, but the "Net Procurement" cost above includes the costs of all hardware. Prior FYs funding includes procurement of ground components, which affects the "Gross Weapon System Unit Cost". Support Equipment captures miscellaneous items such as Terminal High Altitude Area Defense (THAAD) Missile Round Pallet-Transportable (MRP-T), THAAD Active Leak Sensor System (TALSS), and Battery Support Center (BSC) that support the THAAD Batteries and varies from year to year.</p> <p>The FY 2022 budget includes Congressional increase of \$129.179 million for 14 additional THAAD interceptors.</p> <p>The FY 2023 budget includes Congressional increase of \$165.000 million for 15 additional THAAD interceptors.</p> <p>The decrease in the Interceptor line above from FY 2023 to FY 2024 reflects a decrease in the THAAD Interceptor procurement quantity from 18 in FY 2023 to 11 in FY 2024.</p> <p>The increase in the Obsolescence and Modifications line above from FY 2023 to FY 2024 provides an increase in requirements for Interceptor obsolescence and THAAD Battery Ground Component obsolescence modifications.</p> <p>Interceptor obsolescence encompasses mitigation activities that protect the system design and ensure a producible technical data package. This preserves an affordable future product cost within an acceptable production schedule. Examples of mitigation activities include component replacement parts, materials, qualification, alternative source/parts qualification, and piece part/material bridge buys to support subsequent years' production lots.</p> <p>THAAD Battery Ground Component obsolescence modifications address weapon system obsolescence, supportability issues, and cyber threats. These modifications will result in a common baseline (Configuration 3) for all THAAD Batteries.</p> <p>The Stockpile Reliability Program (SRP) encompasses production support, field testing, storage and aging testing, and stockpile reliability testing and analysis for THAAD interceptors. This provides reliability data and analysis which provides warfighter confidence and enables the extension of the Interceptor shelf and service life, resulting in significant cost avoidance.</p> <p>(t) indicates the presence of a P-5a</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Interceptor - Lot 1 ^(†)		2010	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Mar 2011	Jul 2012	26	14.480	Y		Oct 2009
Interceptor - Lot 2 ^(†)		2011	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Mar 2011	Jul 2013	22	12.100	N		Oct 2009
Interceptor - Lot 4 ^(†)		2012	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Aug 2012	Jun 2015	46	11.022	N		Aug 2011
Interceptor - Lot 5 ^(†)		2013	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Sep 2013	Jul 2017	34	11.022	N		Aug 2011
Interceptor - Lot 6 ^(†)		2014	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Dec 2013	Mar 2018	27	11.022	N		Jun 2013
Interceptor - Lot 7 ^(†)		2015	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Dec 2015	Aug 2018	38	10.100	N		Mar 2014
Interceptor - Lot 8 ^(†)		2016	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Dec 2015	Feb 2019	36	10.100	N		Apr 2015
Interceptor - Lot 9 ^(†)		2017	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Mar 2017	Jan 2020	47	9.185	N		May 2016
Interceptor - Lot 10 ^(†)		2018	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Dec 2017	Oct 2020	109	9.169	N		Dec 2016
Interceptor - Lot 11 ^(†)		2019	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Apr 2019	Dec 2021	110	8.410	N		May 2018
Interceptor - Lot 12 ^(†)		2020	Lockheed Martin / Troy, AL	SS / FPIF	MDA, Huntsville, AL	Mar 2020	Mar 2023	39	8.397	N		Oct 2018
Launcher - Lot 1 ^(†)		2010	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	May 2011	Apr 2013	6	9.170	Y		Oct 2009
Launcher - Lot 2 ^(†)		2011	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	May 2011	Oct 2013	6	9.130	Y		Oct 2009
Launcher - Lot 3 ^(†)		2011	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Jul 2012	May 2014	6	9.130	Y		Aug 2011
Launcher - Lot 4 ^(†)		2012	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Jul 2012	Nov 2014	6	7.490	Y		Aug 2011
Launcher - Lot 6 ^(†)		2014	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Aug 2014	Mar 2016	12	9.050	Y		Jun 2013
TFCC Tactical Station Group - Lot 2 ^(†)		2011	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Mar 2011	May 2013	4	10.100	Y		Oct 2009
TFCC Tactical Station Group - Lot 3 ^(†)		2011	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Jul 2012	Aug 2014	2	10.100	Y		Aug 2011
TFCC Tactical Station Group - Lot 4 ^(†)		2012	Lockheed Martin / Camden, AR	SS / FFP	MDA, Huntsville, AL	Jul 2012	Oct 2014	2	9.260	Y		Aug 2011

^(†) indicates the presence of a P-21

Remarks:

N/A

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements <i>(Units in Each)</i>					Fiscal Year 2013													Fiscal Year 2014													BALANCE		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 2	BAL D U E A S O F 1 O C T	Calendar Year 2013													Calendar Year 2014													
							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			
Interceptor - Lot 1																																	
Prior Years Deliveries: 39																																	
	1	2010	MDA	26	1	25	-	-	-	-	-	-	3	6	6	7	3												0				
Interceptor - Lot 2																																	
Prior Years Deliveries: 39																																	
	2	2011	MDA	22	0	22	-	-	-	-	-	-	-	-	-	4	4	4	3	3	3	-	-	-	1				0				
Interceptor - Lot 4																																	
Prior Years Deliveries: 39																																	
	3	2012	MDA	46	0	46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46				
Interceptor - Lot 5																																	
Prior Years Deliveries: 39																																	
	4	2013	MDA	34	0	34																						34					
Interceptor - Lot 6																																	
Prior Years Deliveries: 39																																	
	5	2014	MDA	27	0	27																						27					
Interceptor - Lot 7																																	
Prior Years Deliveries: 39																																	
	6	2015	MDA	38	0	38																						38					
Interceptor - Lot 8																																	
Prior Years Deliveries: 39																																	
	6	2016	MDA	36	0	36																						36					
Interceptor - Lot 9																																	
Prior Years Deliveries: 39																																	
	7	2017	MDA	47	0	47																						47					
Interceptor - Lot 10																																	
Prior Years Deliveries: 39																																	
	8	2018	MDA	109	0	109																						109					
Interceptor - Lot 11																																	
Prior Years Deliveries: 39																																	
	9	2019	MDA	110	0	110																						110					
Interceptor - Lot 12																																	
Prior Years Deliveries: 39																																	
	10	2020	MDA	39	0	39																						39					
							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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements <i>(Units in Each)</i>					Fiscal Year 2013													Fiscal Year 2014													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2012	BAL DUE AS OF 1 OCT	Calendar Year 2013													Calendar Year 2014													
							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			
Launcher - Lot 1																																	
	11	2010	MDA	6	0	6	-	-	-	-	-	-	-	1	2	-	-	3												0			
Launcher - Lot 2																																	
	12	2011	MDA	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1					0				
Launcher - Lot 3																																	
	13	2011	MDA	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1			
Launcher - Lot 4																																	
	14	2012	MDA	6	0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6				
Launcher - Lot 6																																	
	15	2014	MDA	12	0	12																						A -	-	12			
TFCC Tactical Station Group - Lot 2																																	
	16	2011	MDA	4	0	4	-	-	-	-	-	-	-	1	1	-	-	-	-	-	2								0				
TFCC Tactical Station Group - Lot 3																																	
	17	2011	MDA	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0			
TFCC Tactical Station Group - Lot 4																																	
	18	2012	MDA	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2			
							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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2015																	Fiscal Year 2016												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015																	Calendar Year 2016												
							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						
Interceptor - Lot 1																																				
Prior Years Deliveries: 39																																				
	1	2010	MDA	26	26	0																													0	
Interceptor - Lot 2																																				
Prior Years Deliveries: 39																																				
	2	2011	MDA	22	22	0																													0	
Interceptor - Lot 4																																				
Prior Years Deliveries: 39																																				
	3	2012	MDA	46	0	46	-	-	-	-	-	-	-	-	3	-	-	-	-	2	7	-	-	-	-	-	-	-	-	-	12	-	-	-	22	
Interceptor - Lot 5																																				
Prior Years Deliveries: 39																																				
	4	2013	MDA	34	0	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34		
Interceptor - Lot 6																																				
Prior Years Deliveries: 39																																				
	5	2014	MDA	27	0	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27		
Interceptor - Lot 7																																				
Prior Years Deliveries: 39																																				
	6	2015	MDA	38	0	38																													38	
Interceptor - Lot 8																																				
Prior Years Deliveries: 39																																				
	6	2016	MDA	36	0	36																													36	
Interceptor - Lot 9																																				
Prior Years Deliveries: 39																																				
	7	2017	MDA	47	0	47																													47	
Interceptor - Lot 10																																				
Prior Years Deliveries: 39																																				
	8	2018	MDA	109	0	109																													109	
Interceptor - Lot 11																																				
Prior Years Deliveries: 39																																				
	9	2019	MDA	110	0	110																													110	
Interceptor - Lot 12																																				
Prior Years Deliveries: 39																																				
	10	2020	MDA	39	0	39																													39	
							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						

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2015														Fiscal Year 2016														BALANCE				
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015														Calendar Year 2016																	
							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								
Launcher - Lot 1																																						
	11	2010	MDA	6	6	0																												0				
Launcher - Lot 2																																						
	12	2011	MDA	6	6	0																												0				
Launcher - Lot 3																																						
	13	2011	MDA	6	5	1	1																											0				
Launcher - Lot 4																																						
	14	2012	MDA	6	0	6	-	1	1	1	1	1	1																					0				
Launcher - Lot 6																																						
	15	2014	MDA	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1	1	1	2	1	2
TFCC Tactical Station Group - Lot 2																																						
	16	2011	MDA	4	4	0																														0		
TFCC Tactical Station Group - Lot 3																																						
	17	2011	MDA	2	2	0																															0	
TFCC Tactical Station Group - Lot 4																																						
	18	2012	MDA	2	0	2	1	1																													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								

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017														Fiscal Year 2018														BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018														
							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					
Interceptor - Lot 1																																			
Prior Years Deliveries: 39																																			
	1	2010	MDA	26	26	0																												0	
Interceptor - Lot 2																																			
Prior Years Deliveries: 39																																			
	2	2011	MDA	22	22	0																												0	
Interceptor - Lot 4																																			
Prior Years Deliveries: 39																																			
	3	2012	MDA	46	24	22	-	-	-	-	-	-	2	3	9	8																		0	
Interceptor - Lot 5																																			
Prior Years Deliveries: 39																																			
	4	2013	MDA	34	0	34	-	-	-	-	-	-	-	-	4	8	7	1	-	4	-	7	3										0		
Interceptor - Lot 6																																			
Prior Years Deliveries: 39																																			
	5	2014	MDA	27	0	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	12	6	1								0		
Interceptor - Lot 7																																			
Prior Years Deliveries: 39																																			
	6	2015	MDA	38	0	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	6		22		
Interceptor - Lot 8																																			
Prior Years Deliveries: 39																																			
	6	2016	MDA	36	0	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36		
Interceptor - Lot 9																																			
Prior Years Deliveries: 39																																			
	7	2017	MDA	47	0	47							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47			
Interceptor - Lot 10																																			
Prior Years Deliveries: 39																																			
	8	2018	MDA	109	0	109																											109		
Interceptor - Lot 11																																			
Prior Years Deliveries: 39																																			
	9	2019	MDA	110	0	110																											110		
Interceptor - Lot 12																																			
Prior Years Deliveries: 39																																			
	10	2020	MDA	39	0	39																											39		
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S					
							C	O	E	A	E	A	A	A	U	U	A	E	C	O	V	E	A	E	A	A	U	U	A	S					
							T	V	C	N	B	R	P	Y	N	L	G	P	T	V	C	N	B	R	P	Y	N	L	G	P					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							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
Launcher - Lot 1																															
	11	2010	MDA	6	6	0																							0		
Launcher - Lot 2																															
	12	2011	MDA	6	6	0																							0		
Launcher - Lot 3																															
	13	2011	MDA	6	6	0																							0		
Launcher - Lot 4																															
	14	2012	MDA	6	6	0																							0		
Launcher - Lot 6																															
	15	2014	MDA	12	10	2	1	1																					0		
TFCC Tactical Station Group - Lot 2																															
	16	2011	MDA	4	4	0																							0		
TFCC Tactical Station Group - Lot 3																															
	17	2011	MDA	2	2	0																							0		
TFCC Tactical Station Group - Lot 4																															
	18	2012	MDA	2	2	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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17 **P-1 Line Item Number / Title:** MD07 / THAAD **Item Number / Title [DODIC]:** THAAD

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019														Fiscal Year 2020														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019														Calendar Year 2020														
							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					
Interceptor - Lot 1																																			
Prior Years Deliveries: 39																																			
	1	2010	MDA	26	26	0																											0		
Interceptor - Lot 2																																			
Prior Years Deliveries: 39																																			
	2	2011	MDA	22	22	0																											0		
Interceptor - Lot 4																																			
Prior Years Deliveries: 39																																			
	3	2012	MDA	46	46	0																											0		
Interceptor - Lot 5																																			
Prior Years Deliveries: 39																																			
	4	2013	MDA	34	34	0																											0		
Interceptor - Lot 6																																			
Prior Years Deliveries: 39																																			
	5	2014	MDA	27	27	0																											0		
Interceptor - Lot 7																																			
Prior Years Deliveries: 39																																			
	6	2015	MDA	38	16	22	-	4	10	-	8																						0		
Interceptor - Lot 8																																			
Prior Years Deliveries: 39																																			
	6	2016	MDA	36	0	36	-	-	-	-	3	6	3	3	4	5	2	5	1	4													0		
Interceptor - Lot 9																																			
Prior Years Deliveries: 39																																			
	7	2017	MDA	47	0	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	8	8	5	-	-	-	-	-	-	10			
Interceptor - Lot 10																																			
Prior Years Deliveries: 39																																			
	8	2018	MDA	109	0	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109			
Interceptor - Lot 11																																			
Prior Years Deliveries: 39																																			
	9	2019	MDA	110	0	110																											110		
Interceptor - Lot 12																																			
Prior Years Deliveries: 39																																			
	10	2020	MDA	39	0	39																											39		
							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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019														Fiscal Year 2020														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019														Calendar Year 2020														
							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					
Launcher - Lot 1																																			
	11	2010	MDA	6	6	0																											0		
Launcher - Lot 2																																			
	12	2011	MDA	6	6	0																											0		
Launcher - Lot 3																																			
	13	2011	MDA	6	6	0																											0		
Launcher - Lot 4																																			
	14	2012	MDA	6	6	0																											0		
Launcher - Lot 6																																			
	15	2014	MDA	12	12	0																											0		
TFCC Tactical Station Group - Lot 2																																			
	16	2011	MDA	4	4	0																											0		
TFCC Tactical Station Group - Lot 3																																			
	17	2011	MDA	2	2	0																											0		
TFCC Tactical Station Group - Lot 4																																			
	18	2012	MDA	2	2	0																											0		

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17 **P-1 Line Item Number / Title:** MD07 / THAAD **Item Number / Title [DODIC]:** THAAD

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021													Fiscal Year 2022													BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							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			
Interceptor - Lot 1																																	
Prior Years Deliveries: 39																																	
	1	2010	MDA	26	26	0																						0					
Interceptor - Lot 2																																	
Prior Years Deliveries: 39																																	
	2	2011	MDA	22	22	0																						0					
Interceptor - Lot 4																																	
Prior Years Deliveries: 39																																	
	3	2012	MDA	46	46	0																						0					
Interceptor - Lot 5																																	
Prior Years Deliveries: 39																																	
	4	2013	MDA	34	34	0																						0					
Interceptor - Lot 6																																	
Prior Years Deliveries: 39																																	
	5	2014	MDA	27	27	0																						0					
Interceptor - Lot 7																																	
Prior Years Deliveries: 39																																	
	6	2015	MDA	38	38	0																						0					
Interceptor - Lot 8																																	
Prior Years Deliveries: 39																																	
	6	2016	MDA	36	36	0																						0					
Interceptor - Lot 9																																	
Prior Years Deliveries: 39																																	
	7	2017	MDA	47	37	10	10																					0					
Interceptor - Lot 10																																	
Prior Years Deliveries: 39																																	
	8	2018	MDA	109	0	109	2	10	8	5	6	8	10	6	-	9	21	10	7	3	4							0					
Interceptor - Lot 11																																	
Prior Years Deliveries: 39																																	
	9	2019	MDA	110	0	110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	7	9	8	7	10	6	8	12	7	35		
Interceptor - Lot 12																																	
Prior Years Deliveries: 39																																	
	10	2020	MDA	39	0	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39				
							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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17 **P-1 Line Item Number / Title:** MD07 / THAAD **Item Number / Title [DODIC]:** THAAD

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023												Fiscal Year 2024												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T T O 1 O C T 2 0 2 2	BAL DUE A S O F 1 O C T	Calendar Year 2023												Calendar Year 2024												
							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
Interceptor - Lot 1																															
Prior Years Deliveries: 39																															
	1	2010	MDA		26	26	0																					0			
Interceptor - Lot 2																															
Prior Years Deliveries: 39																															
	2	2011	MDA		22	22	0																					0			
Interceptor - Lot 4																															
Prior Years Deliveries: 39																															
	3	2012	MDA		46	46	0																					0			
Interceptor - Lot 5																															
Prior Years Deliveries: 39																															
	4	2013	MDA		34	34	0																					0			
Interceptor - Lot 6																															
Prior Years Deliveries: 39																															
	5	2014	MDA		27	27	0																					0			
Interceptor - Lot 7																															
Prior Years Deliveries: 39																															
	6	2015	MDA		38	38	0																					0			
Interceptor - Lot 8																															
Prior Years Deliveries: 39																															
	6	2016	MDA		36	36	0																					0			
Interceptor - Lot 9																															
Prior Years Deliveries: 39																															
	7	2017	MDA		47	47	0																					0			
Interceptor - Lot 10																															
Prior Years Deliveries: 39																															
	8	2018	MDA		109	109	0																					0			
Interceptor - Lot 11																															
Prior Years Deliveries: 39																															
	9	2019	MDA		110	75	35	9	10	7	-	3	6															0			
Interceptor - Lot 12																															
Prior Years Deliveries: 39																															
	10	2020	MDA		39	0	39	-	-	-	-	-	2	8	8	8	8	5										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

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023												Fiscal Year 2024												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023												Calendar Year 2024												
							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
Launcher - Lot 1																															
	11	2010	MDA	6	6	0																							0		
Launcher - Lot 2																															
	12	2011	MDA	6	6	0																							0		
Launcher - Lot 3																															
	13	2011	MDA	6	6	0																							0		
Launcher - Lot 4																															
	14	2012	MDA	6	6	0																							0		
Launcher - Lot 6																															
	15	2014	MDA	12	12	0																							0		
TFCC Tactical Station Group - Lot 2																															
	16	2011	MDA	4	4	0																							0		
TFCC Tactical Station Group - Lot 3																															
	17	2011	MDA	2	2	0																							0		
TFCC Tactical Station Group - Lot 4																															
	18	2012	MDA	2	2	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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17		P-1 Line Item Number / Title: MD07 / THAAD
		Item Number / Title [DODIC]: THAAD

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin - Troy, AL	1	4	8	6	6	16	22	6	4	27	31
2	Lockheed Martin - Troy, AL	1	4	8	6	6	28	34	6	4	27	31
3	Lockheed Martin - Troy, AL	1	4	8	6	11	36	47	6	11	36	47
4	Lockheed Martin - Troy, AL	1	4	8	6	12	37	49	6	12	37	49
5	Lockheed Martin - Troy, AL	1	4	8	6	3	43	46	6	3	43	46
6	Lockheed Martin - Troy, AL	1	4	8	6	12	31	43	6	12	31	43
7	Lockheed Martin - Troy, AL	1	4	8	6	5	34	39	6	5	34	39
8	Lockheed Martin - Troy, AL	1	4	8	6	3	34	37	6	3	34	37
9	Lockheed Martin - Troy, AL	1	4	8	6	3	34	37	6	6	34	40
10	Lockheed Martin - Troy, AL	1	4	8	6	6	31	37	6	6	31	37
11	Lockheed Martin - Camden, AR	1	1	3	6	8	23	31	6	4	21	25
12	Lockheed Martin - Camden, AR	1	1	2	6	8	29	37	6	4	21	25
13	Lockheed Martin - Camden, AR	1	1	2	6	10	22	32	6	4	21	25
14	Lockheed Martin - Camden, AR	1	1	2	6	10	28	38	6	3	21	24
15	Lockheed Martin - Camden, AR	1	1	2	6	6	22	28	6	4	21	25
16	Lockheed Martin - Camden, AR	1	2	2	6	6	26	32	6	4	24	28
17	Lockheed Martin - Camden, AR	1	1	1	6	10	25	35	6	4	24	28
18	Lockheed Martin - Camden, AR	1	1	1	6	10	27	37	6	3	24	27

Remarks:

- Max Production rate is 8 at normal capacity.
- FMS deliveries of approximately 4 per month from December 2015 to October 2019 are not included.
- In August 2016, interceptor deliveries were paused in order to resolve a cable connector sub-assembly issue. During this time however, production of other interceptor sub-assemblies continued. Interceptor production resumed in November 2016, and associated deliveries resumed in April 2017. Lockheed Martin worked extended work days and additional shifts in order to surge deliveries through September 2018 in order to complete interceptor deliveries in accordance with current contract requirements.
- Manufacturing lead times can vary due to factors such as managing multiple lot buys concurrently to achieve price discounts, increasing the lead time for the second awarded lot buy.

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency		Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD07 / THAAD	Item Number / Title [DODIC]: THAAD
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- A Lot 4 Interceptor mission computer static random access memory failure, root cause analysis, corrective action, and incorporation of leap second software update resulted in a seven (7) month production delay from November 2014 to June 2015.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0603882C	Other Related Program Elements: 0603882C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	96	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,280.247	0.000	11.300	-	-	-	30.971	36.243	34.833	18.978	-	1,412.572
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,280.247	0.000	11.300	-	-	-	30.971	36.243	34.833	18.978	-	1,412.572
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,280.247	0.000	11.300	-	-	-	30.971	36.243	34.833	18.978	-	1,412.572

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	13.336	0.000	0.000	-	-	-	-	-	-	-	-	-

Description:

The Ground-based Midcourse Defense (GMD) element of the Missile Defense System provides combatant commands with a continuously available (24 hours a day, 365 days a year) capability to defend the Homeland against limited Intercontinental Ballistic Missile attacks. The GMD capability consists of Ground Based Interceptors, GMD Fire Control system (GFC), GMD Communications Network (GCN), In-Flight Interceptor Communications System Data Terminal (IDT) and ground Launch Support Systems (LSS). LSS are currently located at FGA and VSBF. Each Ground Based Interceptor delivers a single kill vehicle to defeat threat warheads in space during the midcourse phase of the ballistic trajectory. The GFC consists of fire control nodes in Fort Greely, Alaska (FGA) and Missile Defense Integration and Operations Center (MDIOC) Colorado Springs, Colorado. IDTs are currently located in FGA, Vandenberg Space Force Base (VSBF), California; Eareckson Air Station, Alaska; and Fort Drum, New York.

Fiscal Year (FY) 2023 funding provided processors and operating system upgrade modification kits for four operational IDTs at Fort Drum NY (1), Fort Greely AK (2), and Eareckson AK (1) to mitigate existing obsolescence. These are modification kits.

No procurement funding is requested in FY 2024.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency

P-1 Line Item Number / Title:
MD08 / Ground Based Midcourse

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0603882C **Other Related Program Elements:** 0603882C

Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	Ground Based Midcourse	P-5a, P-21	A		73 / 444.783	- / 0.000	- / 0.000	- / -	- / -	- / -
P-5	Ground Based Interceptors	P-5a, P-21	A		1 / 368.000	- / 0.000	- / 0.000	- / -	- / -	- / -
P-5	Silo Interface Vaults/Silos	P-5a, P-21	A		22 / 467.464	- / 0.000	- / 0.000	- / -	- / -	- / -
P-5	Phased Array IDT and IDT Upgrades	P-5a, P-21	A		0 / 0.000	- / 0.000	- / 11.300	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				96 / 1,280.247	- / 0.000	- / 11.300	- / -	- / -	- / -

*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 2023 funding provided processors and operating system upgrade modification kits for four operational IDTs at Fort Drum NY (1), Fort Greely AK (2), and Eareckson AK (1) to mitigate existing obsolescence. These are not brand-new end items but are modification kits.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Ground Based Midcourse
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity <i>(Units in Each)</i>	73	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	444.783	0.000	0.000	-	-	-
Less PY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	444.783	0.000	0.000	-	-	-
Plus CY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	444.783	0.000	0.000	-	-	-

(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 Millions)</i>	6.093	0.000	0.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost																		
Boost Vehicles ^(t)	30.000	10	300.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Launch Support Systems ^(t)	1.977	73	144.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	444.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	444.312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Cost																		
Obsolescence	0.471	1	0.471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	0.471	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	6.093	73	444.783	0.000	-	0.000	0.000	-	0.000	-	-	-	-	-	-	-	-	-

Remarks:

Cost savings due to favorable contract negotiations for Silo Hardware allowed for the reallocation of \$0.471M of obsolescence funding to procure spare Launch Support System (LSS) kits to improve weapon system reliability.

^(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Ground Based Midcourse
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Boost Vehicles ^(†)		2020	Boeing / AL/AK/AZ/CA/CO/VA	C / CPIF	Huntsville, AL	Dec 2020	Feb 2023	4	50.000	N		Jul 2020
Launch Support Systems ^(†)		2020	Boeing / AL/AK/AZ/CA/CO/VA	C / CPIF	Huntsville, AL	Sep 2021	Sep 2023	73	2.045	N		Jun 2021

^(†) indicates the presence of a P-21

Remarks:

N/A

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Ground Based Midcourse
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2021														Fiscal Year 2022														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021														Calendar Year 2022														
							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					
Boost Vehicles																																			
Prior Years Deliveries: 6																																			
	1	2020	MDA	4	0	4			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4		
Launch Support Systems																																			
	2	2020	MDA	73	0	73																											73		
							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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17 **P-1 Line Item Number / Title:** MD08 / Ground Based Midcourse **Item Number / Title [DODIC]:** Ground Based Midcourse

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023												Fiscal Year 2024												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023												Calendar Year 2024												
							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
Boost Vehicles																															
Prior Years Deliveries: 6																															
1		2020	MDA	4	0	4	-	-	-	-	1	-	1	-	1	1													0		
Launch Support Systems																															
2		2020	MDA	73	0	73	-	-	-	-	-	-	-	-	-	-	22	4	4	4	4	4	4	4	4	4	4	5	5	5	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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Ground Based Midcourse
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Boeing - AL/AK/AZ/CA/CO/VA	1	1	2	6	3	26	29	6	3	26	29
2	Boeing - AL/AK/AZ/CA/CO/VA	1	1	2	6	12	24	36	6	12	24	36

Remarks:
N/A

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Ground Based Interceptors

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity <i>(Units in Each)</i>	1	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	368.000	0.000	0.000	-	-	-
Less PY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	368.000	0.000	0.000	-	-	-
Plus CY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	368.000	0.000	0.000	0.000	0.000	0.000

(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 Millions)</i>	368.000	0.000	0.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Ground Based Interceptors ^(†)	368.000	1	368.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	368.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	368.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	368.000	1	368.000	0.000	-	0.000	0.000	-	0.000	-	-	-	-	-	-	-	-	-

Remarks:
For purchase of long-lead hardware.

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Ground Based Interceptors
--	---	--

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Ground Based Interceptors - Hardware ^(†)		2019	Boeing / Huntsville	C / CPIF	Huntsville	Oct 2018	Jan 2019	1	0.000	Y		Jan 2018

^(†) indicates the presence of a P-21

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Ground Based Interceptors
--	---	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							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
Ground Based Interceptors - Hardware																															
	1	2019	MDA	1	0	1	A	-	-	-	1																		0		
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	V	E	A	E	A	A	U	U	U	E	
							T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Ground Based Interceptors
--	---	--

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Boeing - Huntsville	1	1	2	6	0	38	38	6	0	38	38

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Silo Interface Vaults/Silos
--	---	--

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)	22	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	467.464	0.000	0.000	-	-	-
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	467.464	0.000	0.000	-	-	-
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	467.464	0.000	0.000	-	-	-

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	21.248	0.000	0.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost																		
Silos ^(†)	21.248	22	467.464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	467.464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	467.464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	21.248	22	467.464	0.000	-	0.000	0.000	-	0.000	-	-	-	-	-	-	-	-	-

Remarks:

N/A

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Silo Interface Vaults/Silos
--	---	--

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Silos - Hardware ^(†)		2018	Boeing / AL/AK/AZ/CA/CO/VA	SS / FPIF	Huntsville, AL	Jan 2018	Nov 2021	10	22.700	Y	Sep 2018	Jan 2018
Silos - Hardware ^(†)		2019	Boeing / AL/AK/AZ/CA/CO/VA	SS / FPIF	Huntsville, AL	Jan 2018	Apr 2022	12	21.050	Y	Sep 2018	Jan 2018

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Silo Interface Vaults/Silos
--	---	--

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2018														Fiscal Year 2019														BALANCE
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019														
							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					
Silos - Hardware																																			
	1	2018	MDA	10	0	10																									10				
	1	2019	MDA	12	0	12																									12				
							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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Silo Interface Vaults/Silos
--	---	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020														Fiscal Year 2021														BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020														Calendar Year 2021														
							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					
Silos - Hardware																																			
	1	2018	MDA	10	0	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10					
	1	2019	MDA	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12					
							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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Silo Interface Vaults/Silos
--	---	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							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
Silos - Hardware																															
	1	2018	MDA	10	0	10	-	3	3	-	3	-	1																0		
	1	2019	MDA	12	0	12	-	-	-	-	-	-	1	-	9	-	-	-	-	-	-	-	-	-	-	-	2		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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency	Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Silo Interface Vaults/Silos
--	---	--

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Boeing - AL/AK/AZ/CA/CO/VA	1	1	6	6	0	20	20	6	0	20	20

Remarks:
 FY 2019 MILCON for Missile Field-1 was reprogrammed as a result of the utilization of 10 U.S. Code section 2808, the declaration of a national emergency at the southern border. GM Missile Field-1 construction and subsequent delivery of the silos was delayed until April 2023.

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Phased Array IDT and IDT Upgrades
--	---	--

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)	0	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	0.000	11.300	-	-	-
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	0.000	11.300	-	-	-
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	0.000	11.300	-	-	-

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	0.000	0.000	0.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Phased Array IDT and IDT Upgrades ^(†)	-	-	-	-	-	-	2.825	4	11.300	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	11.300	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	-	-	-	-	-	-	11.300	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	0.000	0	0.000	0.000	-	0.000	0.000	-	11.300	-	-	-	-	-	-	-	-	-

Remarks:

FY 2023 funding provided processors and operating system upgrade modification kits for four operational In-Flight Interceptor Communications System Data Terminal (IDT) at Fort Drum NY (1), Fort Greely AK (2), and Eareckson AK (1) to mitigate existing obsolescence. These are not brand new items but are modification kits. Two IDTs at VTSFB are being upgraded as part of Research, Development, Test and Evaluation (RDT&E) Risk Reduction development for IDT Processor and operating system upgrade. The two IDTs at Vandenberg Space Force Base are used for flight testing and, as such, their upgrade is funded using RDT&E.

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Phased Array IDT and IDT Upgrades
--	---	--

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Phased Array IDT and IDT Upgrades ^(†)		2023	Boeing / AL/AK/AZ/CA/CO/VA	C / CPIF	Huntsville, AL	Jul 2022	Sep 2023	4	2,825.000	N		Jul 2021

^(†) indicates the presence of a P-21

Remarks:

Remarks: FY 2023 funding provided processors and operating system upgrade modification kits for four operational IDTs at Fort Drum NY (1), Fort Greely AK (2), and Eareckson AK (1) to mitigate existing obsolescence. These are not brand-new end items but are modification kits.

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Phased Array IDT and IDT Upgrades
--	---	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							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
Phased Array IDT and IDT Upgrades																															
	1	2023	MDA	4	0	4																								1	3
							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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Phased Array IDT and IDT Upgrades
--	---	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024												Fiscal Year 2025												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024												Calendar Year 2025												
							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
Phased Array IDT and IDT Upgrades																															
1	2023	MDA		4	1	3	1	-	1	1																			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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency	Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD08 / Ground Based Midcourse	Item Number / Title [DODIC]: Phased Array IDT and IDT Upgrades
--	---	--

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Boeing - AL/AK/AZ/CA/CO/VA	1	1	4	6	1	11	12	6	1	11	12

Remarks:
 FY 2023 funding provided processors and operating system upgrade modification kits for four operational IDTs at Fort Drum NY (1), Fort Greely AK (2), and Eareckson AK (1) to mitigate existing obsolescence. These are not brand-new end items but are modification kits.

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD09 / AEGIS BMD
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0603892C, 0604881C	Other Related Program Elements: 0603892C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	417	40	47	27	-	27	24	43	43	43	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6,241.244	394.386	455.835	374.756	-	374.756	372.639	528.486	537.124	550.011	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	46.024	59.765	53.600	-	-	-	-	-	-	-	-	159.389
Net Procurement (P-1) (<i>\$ in Millions</i>)	6,195.220	334.621	402.235	374.756	-	374.756	372.639	528.486	537.124	550.011	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	141.896	17.493	0.000	-	-	-	-	-	-	-	-	159.389
Total Obligation Authority (<i>\$ in Millions</i>)	6,337.116	352.114	402.235	374.756	-	374.756	372.639	528.486	537.124	550.011	Continuing	Continuing

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	10.655	9.032	8.897	12.509	-	12.509	13.848	11.227	11.391	11.635	Continuing	Continuing
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	14.967	9.860	9.699	13.880	-	13.880	15.527	12.290	12.491	12.791	Continuing	Continuing

Description:

Note:

In accordance with the Consolidated Appropriations Act 2020, SM-3 Block IIA was transferred to MD14 from MD09 in FY 2020 and beyond; this exhibit includes FY 2018 and FY 2019 SM-3 Block IIA funding. FY 2023 quantities are the final year of the FY 2019 through FY 2023 Multi-Year Procurement of 198 All-Up Rounds (AURs) that resulted in a reduced unit cost due to economy of scale. FY 2024 is a single year procurement resulting in a higher unit cost due to lower quantities and loss of economy of scale.

Procurement Quantity" and "Flyaway Unit Cost" above represent SM-3 Block IB missiles only, but the Net Procurement and Gross Weapon System costs includes all hardware and support costs including canisters, production engineering, obsolescence and system engineering, which are detailed in separate P-5s.

Prior Year procurement of 71 SM-3 Block IAs are not included.

The Sea-Based Weapon Systems mission is to deliver an operationally effective and supportable Ballistic Missile Defense (BMD) capability to defend the nation, deployed forces, and allies. Aegis BMD aims to increase this capability by delivering evolutionary improvements as part of Missile Defense System upgrades. Sea-Based Weapon Systems provides a forward-deployable, mobile capability to detect and track ballistic missiles of all ranges, and the ability to destroy Short-Range Ballistic Missiles (SRBM), Medium-Range Ballistic Missiles (MRBM), and Intermediate-Range Ballistic Missiles (IRBM) in the midcourse phase of flight. Upgrades to both the Aegis BMD Weapon System and SM-3 configuration enable Aegis BMD to provide an effective, supportable, and defensive capability against longer range, more sophisticated threats and an enduring Aegis Ashore defensive capability.

The SM-3 Block IB improves Sea-Based Weapon Systems ability to expand the BMD battlespace, engage longer range, more sophisticated ballistic missiles that may deploy countermeasures and launch in larger raid sizes. The SM-3 Block IB Kinetic Warhead's (KW) two color infrared (IR) seeker and advanced signal processor provides a real-time discrimination and characterization capability while improving sensitivity for longer range targets and performance against more sophisticated threats. Additionally, the Throttleable Divert and Attitude Control System KW divert engine has been upgraded over the SM-3 Block IA to provide a more flexible divert in order to maneuver the KW to intercept.

The SM-3 Block IIA provides greater capability over SM-3 Block IB, including increased velocity and range provided by a 21-inch diameter rocket motor propulsion stack, more than doubled seeker sensitivity, and more than tripled divert capability incorporated in an advanced KW. New component technologies include, but are not limited to: lightweight nosecone, advanced KW, 21-inch second stage rocket motor, and 21-inch third stage rocket motor. Working in concert with the SM-3 Block IB, the SM-3 Block IIA, will increase the Ballistic Missile Defense System defended area and increase the probability of kill against a larger

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency		P-1 Line Item Number / Title: MD09 / AEGIS BMD
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0603892C, 0604881C	Other Related Program Elements: 0603892C
Line Item MDAP/MAIS Code: 362		
<p>threat set. The SM-3 Block IIA is also a critical part of the Aegis Ashore Missile Defense System Complex - Romania and Poland, and is also vital to defense efforts for Aegis afloat in the European and Indo-Pacific Commands. This will provide a more robust protection of Europe and the Indo-Pacific. The SM-3 Block IIA also provides defense against IRBMs and other threats. SM-3 Block IIA was transferred to MD14 from MD09 beginning in FY 2020.</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency

P-1 Line Item Number / Title:
MD09 / AEGIS BMD

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0603892C, 0604881C **Other Related Program Elements:** 0603892C

Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	Aegis BMD SM-3 Block IB	P-5a, P-21	A		387 / 5,390.186	40 / 394.386	47 / 455.835	27 / 374.756	- / -	27 / 374.756
P-5	Aegis BMD SM-3 Block IIA	P-5a, P-21	A		30 / 851.058	- / 0.000	- / 0.000	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost				417 / 6,241.244	40 / 394.386	47 / 455.835	27 / 374.756	- / -	27 / 374.756

*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:
N/A

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency					Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17			P-1 Line Item Number / Title: MD09 / AEGIS BMD			Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB				
ID Code (A=Service Ready, B=Not Service Ready) : A					MDAP/MAIS Code:					
Resource Summary			Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total		
Procurement Quantity (Units in Each)			387	40	47	27	-	27		
Gross/Weapon System Cost (\$ in Millions)			5,390.186	394.386	455.835	374.756	-	374.756		
Less PY Advance Procurement (\$ in Millions)			46.024	59.765	53.600	-	-	-		
Net Procurement (P-1) (\$ in Millions)			5,344.162	334.621	402.235	374.756	-	374.756		
Plus CY Advance Procurement (\$ in Millions)			141.896	17.493	0.000	-	-	-		
Total Obligation Authority (\$ in Millions)			5,486.058	352.114	402.235	374.756	-	374.756		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>										
Initial Spares (\$ in Millions)			-	-	-	-	-	-		
Gross/Weapon System Unit Cost (\$ in Millions)			13.928	9.860	9.699	13.880	-	13.880		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
SM-3 Block IA Procurement ^(†)	10.800	71	766.765	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SM-3 Block IB Procurement ^(†)	10.655	387	4,123.677	9.032	40	361.273	8.897	47	418.141	12.509	27	337.730	-	-	-	12.509	27	337.730
<i>Subtotal: Recurring Cost</i>	-	-	4,890.442	-	-	361.273	-	-	418.141	-	-	337.730	-	-	-	-	-	337.730
<i>Subtotal: Flyaway Cost</i>	-	-	4,890.442	-	-	361.273	-	-	418.141	-	-	337.730	-	-	-	-	-	337.730
Hardware Cost																		
Recurring Cost																		
Canisters Procurement SM-3 Block IA/IB (1)	0.253	396	100.185	0.297	40	11.889	0.303	47	14.249	0.327	27	8.832	-	-	-	0.327	27	8.832
<i>Subtotal: Recurring Cost</i>	-	-	100.185	-	-	11.889	-	-	14.249	-	-	8.832	-	-	-	-	-	8.832
<i>Subtotal: Hardware Cost</i>	-	-	100.185	-	-	11.889	-	-	14.249	-	-	8.832	-	-	-	-	-	8.832
Support Cost																		
Ballistic Barriers for Transportation SM-3 Block IB (2)	0.305	36	10.963	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyber Security (3)	1.500	2	3.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diminishing Manufacturing Sources Mitigation (4)	6.177	4	24.708	3.866	1	3.866	3.943	1	3.943	6.010	1	6.010	-	-	-	6.010	1	6.010
SM-3 Blk IB Investment Spares (5)	8.525	5	42.623	7.414	1	7.414	8.876	1	8.876	7.600	1	7.600	-	-	-	7.600	1	7.600

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17						P-1 Line Item Number / Title: MD09 / AEGIS BMD						Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
SM-3 Block IB Obsolescence (6)	11.007	5	55.035	1.375	1	1.375	1.394	1	1.394	1.384	1	1.384	-	-	-	1.384	1	1.384
SM-3 Block IB Production Engineering (7)	22.012	10	220.117	3.671	1	3.671	4.302	1	4.302	8.180	1	8.180	-	-	-	8.180	1	8.180
SM-3 Block IB Service Life Evaluation Program	2.780	5	13.900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SM-3 Block IB Systems Engineering and Integration (9)	7.303	4	29.213	4.898	1	4.898	4.930	1	4.930	5.020	1	5.020	-	-	-	5.020	1	5.020
<i>Subtotal: Support Cost</i>	-	-	399.559	-	-	21.224	-	-	23.445	-	-	28.194	-	-	-	-	-	28.194
Gross/Weapon System Cost	13.928	387	5,390.186	9.860	40	394.386	9.699	47	455.835	13.880	27	374.756	-	-	-	13.880	27	374.756

Remarks:

- (1) Canisters are required for each SM-3 procured.
- (2) SM-3 Transportation of Ballistic Barriers are required by Joint Service Insensitive Munitions Technical Panel) and Naval Ordnance Safety and Security Activity to transport missiles.
- (3) Cyber Security - Support Certification & Accreditation planning and testing in accordance with the Operational Designated Accrediting Authority Process. Conduct certification and accreditation of classified systems and networks under The National Industrial Security Program Operating Manual. Ensure protection of trusted system networks and unclassified contractor networks containing DoD Information.
- (4) Diminishing Manufacturing Sources Mitigation allows Aegis Ballistic Missile Defense to mitigate the loss, or impending loss, of manufacturers of items or suppliers of items or of raw materials caused by several factors. These factors include new or evolving science, detection limits, toxicity values, and regulations related to chemicals and materials resulting in significant impact on the supply chain and industrial base.
- (5) SM-3 Block IB Investment Spares are procured to coincide with the delivery of the missile and are required to support All Up Rounds during 4 year maintenance period.
- (6) Obsolescence monitoring and management is the program's most effective and efficient way to minimize materiel readiness risks, realize future savings during production and sustainment, and improve overall life-cycle management. Identifies risk associated with the 800 vendors/suppliers discontinuing production of a component or raw material and then properly mitigating impacts to production. If not identified early, such activities will impact production and Fleet deliveries.
- (7) Production Engineering supports SM-3 Guided Missile Round production activities and issue resolution during manufacturing, assembly, testing, and missile integration. Funding provides production change validation, preparation, and configuration management, government prepared production acceptance procedures, production planning, Integrated Logistics Support planning, coordination of government furnished information and government furnished equipment, contract deliverable monitoring and prime contractor monitoring of cost/schedule performance. Also provides in-service engineering agent and technical direction agent support.
- (8) SM-3 Block IB Service Life Evaluation Program includes testing and analysis to demonstrate the safety and suitability of the SM-3 for an extended service life goal of 12 years.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
<p>(9) Systems Engineering and Integration - Addresses production technical issues that arise within the entire SM-3 vendor/supplier base. Includes improvement and efficiency activities such as configuration management and control boards, engineering assessments of manufacturing process improvement changes, engineering assessments of sub-vendor production issues, and engineering and quality review of documentation and test data prior to missile acceptance by the government.</p> <p>(t) indicates the presence of a P-5a</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SM-3 Block IA Procurement ^(†)		2009	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Feb 2008	Mar 2010	11	8.405	Y		Mar 2007
SM-3 Block IA Procurement ^(†)		2010	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Apr 2008	Aug 2010	24	8.119	Y		Mar 2007
SM-3 Block IA Procurement ^(†)		2011	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Aug 2012	Sep 2013	22	9.525	Y		Nov 2010
SM-3 Block IA Procurement ^(†)		2012	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Aug 2012	Jul 2014	14	9.867	Y		Aug 2011
SM-3 Block IB Procurement ^(†)		2012	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	May 2012	Dec 2013	14	13.400	Y		Aug 2011
SM-3 Block IB Procurement ^(†)		2013	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Jun 2013	Jun 2014	33	12.130	Y		Aug 2012
SM-3 Block IB Procurement ^(†)		2014	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Apr 2014	Jan 2016	52	10.236	Y		Aug 2013
SM-3 Block IB Procurement ^(†)		2015	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Mar 2015	Nov 2016	52	11.411	Y		Aug 2014
SM-3 Block IB Procurement ^(†)		2016	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Mar 2016	Oct 2018	46	11.538	Y		Aug 2015
SM-3 Block IB Procurement ^(†)		2017	Raytheon / Tucson, AZ	SS / FP	Dahlgren, VA	Mar 2017	Oct 2019	35	10.896	Y		Aug 2016
SM-3 Block IB Procurement ^(†)		2018	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Apr 2019	Oct 2020	44	11.843	Y		Aug 2017
SM-3 Block IB Procurement ^(†)		2019	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Mar 2020	May 2022	39	8.980	Y		Aug 2018
SM-3 Block IB Procurement ^(†)		2020	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Mar 2020	Apr 2023	32	8.980	Y		Aug 2018
SM-3 Block IB Procurement ^(†)		2021	Raytheon / Tucson, AZ	SS / FPIF	Dahlgren, VA	Mar 2020	May 2024	40	8.890	Y		Aug 2018

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2008												Fiscal Year 2009												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2007	BAL DUE AS OF 1 OCT	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
SM-3 Block IA Procurement																															
	1	2009	MDA	11	0	11																								11	
	1	2010	MDA	24	0	24																								24	
	1	2011	MDA	22	0	22																								22	
	1	2012	MDA	14	0	14																								14	
SM-3 Block IB Procurement																															
	2	2012	MDA	14	0	14																								14	
	2	2013	MDA	33	0	33																								33	
	2	2014	MDA	52	0	52																								52	
	2	2015	MDA	52	0	52																								52	
	2	2016	MDA	46	0	46																								46	
	2	2017	MDA	35	0	35																								35	
	2	2018	MDA	44	0	44																								44	
	2	2019	MDA	39	0	39																								39	
	2	2020	MDA	32	0	32																								32	
	2	2021	MDA	40	0	40																								40	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>					Fiscal Year 2010													Fiscal Year 2011													B A L A N C E		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2009	BAL DUE AS OF 1 OCT	Calendar Year 2010													Calendar Year 2011													
							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			
SM-3 Block IA Procurement																																	
1		2009	MDA	11	0	11	-	-	-	-	-	-	2	-	-	-	2	2	-	-	-	-	-	-	-	-	-	1	1	3	0		
1		2010	MDA	24	0	24	-	-	-	-	-	-	-	-	-	-	2	2	7	-	-	-	-	-	-	-	-	-	-	-	13		
1		2011	MDA	22	0	22																								22			
1		2012	MDA	14	0	14																								14			
SM-3 Block IB Procurement																																	
2		2012	MDA	14	0	14																								14			
2		2013	MDA	33	0	33																								33			
2		2014	MDA	52	0	52																								52			
2		2015	MDA	52	0	52																								52			
2		2016	MDA	46	0	46																								46			
2		2017	MDA	35	0	35																								35			
2		2018	MDA	44	0	44																								44			
2		2019	MDA	39	0	39																								39			
2		2020	MDA	32	0	32																								32			
2		2021	MDA	40	0	40																								40			
							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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2012												Fiscal Year 2013												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2011	BAL DUE AS OF 1 OCT	Calendar Year 2012												Calendar Year 2013												
							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
SM-3 Block IA Procurement																															
	1	2009	MDA	11	11	0																							0		
	1	2010	MDA	24	11	13	-	-	-	-	6	-	1	-	-	2	-	3	-	-	-	-	-	-	-	-	-	-	1	0	
	1	2011	MDA	22	0	22																						1	21		
	1	2012	MDA	14	0	14																						-	14		
SM-3 Block IB Procurement																															
	2	2012	MDA	14	0	14																							14		
	2	2013	MDA	33	0	33																							33		
	2	2014	MDA	52	0	52																							52		
	2	2015	MDA	52	0	52																							52		
	2	2016	MDA	46	0	46																							46		
	2	2017	MDA	35	0	35																							35		
	2	2018	MDA	44	0	44																							44		
	2	2019	MDA	39	0	39																							39		
	2	2020	MDA	32	0	32																							32		
	2	2021	MDA	40	0	40																							40		
							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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2014												Fiscal Year 2015												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												
							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
SM-3 Block IA Procurement																															
	1	2009	MDA	11	11	0																							0		
	1	2010	MDA	24	24	0																							0		
	1	2011	MDA	22	1	21	5	1	2	1	-	3	4	1	1	3													0		
	1	2012	MDA	14	0	14	-	-	-	-	-	-	-	-	2	1	3	-	-	-	3	4	-	1					0		
SM-3 Block IB Procurement																															
	2	2012	MDA	14	0	14	-	-	1	3	2	3	1	2	2														0		
	2	2013	MDA	33	0	33	-	-	-	-	-	-	-	-	2	1	-	1	-	6	3	1	-	3	2	4	-	-	-	1	9
	2	2014	MDA	52	0	52							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52		
	2	2015	MDA	52	0	52																							52		
	2	2016	MDA	46	0	46																		A -	-	-	-	-		46	
	2	2017	MDA	35	0	35																							35		
	2	2018	MDA	44	0	44																							44		
	2	2019	MDA	39	0	39																							39		
	2	2020	MDA	32	0	32																							32		
	2	2021	MDA	40	0	40																							40		
							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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016														Fiscal Year 2017												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017												
							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			
SM-3 Block IA Procurement																																	
	1	2009	MDA	11	11	0																							0				
	1	2010	MDA	24	24	0																							0				
	1	2011	MDA	22	22	0																							0				
	1	2012	MDA	14	14	0																							0				
SM-3 Block IB Procurement																																	
	2	2012	MDA	14	14	0																							0				
	2	2013	MDA	33	24	9	4	-	5																				0				
	2	2014	MDA	52	0	52	-	-	-	2	-	-	-	2	-	-	14	6	-	-	12	5	5	4	2				0				
	2	2015	MDA	52	0	52	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	2	6	3	-	5	8	25		
	2	2016	MDA	46	0	46																							46				
	2	2017	MDA	35	0	35																							35				
	2	2018	MDA	44	0	44																							44				
	2	2019	MDA	39	0	39																							39				
	2	2020	MDA	32	0	32																							32				
	2	2021	MDA	40	0	40																							40				
							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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018													Fiscal Year 2019													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019													
							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			
SM-3 Block IA Procurement																																	
	1	2009	MDA	11	11	0																								0			
	1	2010	MDA	24	24	0																								0			
	1	2011	MDA	22	22	0																								0			
	1	2012	MDA	14	14	0																								0			
SM-3 Block IB Procurement																																	
	2	2012	MDA	14	14	0																								0			
	2	2013	MDA	33	33	0																								0			
	2	2014	MDA	52	52	0																								0			
	2	2015	MDA	52	27	25	3	-	9	-	-	-	-	-	-	-	-	13												0			
	2	2016	MDA	46	0	46	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	3	3	6	5	13	3	9	
	2	2017	MDA	35	0	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35		
	2	2018	MDA	44	0	44																								44			
	2	2019	MDA	39	0	39																								39			
	2	2020	MDA	32	0	32																								32			
	2	2021	MDA	40	0	40																								40			
							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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021													
							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	
SM-3 Block IA Procurement																																
	1	2009	MDA	11	11	0																							0			
	1	2010	MDA	24	24	0																							0			
	1	2011	MDA	22	22	0																							0			
	1	2012	MDA	14	14	0																							0			
SM-3 Block IB Procurement																																
	2	2012	MDA	14	14	0																							0			
	2	2013	MDA	33	33	0																							0			
	2	2014	MDA	52	52	0																							0			
	2	2015	MDA	52	52	0																							0			
	2	2016	MDA	46	37	9	9																						0			
	2	2017	MDA	35	0	35	4	10	-	-	-	3	-	4	5	1	4	4											0			
	2	2018	MDA	44	0	44	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	6	10	3	2	-	-	-	21			
	2	2019	MDA	39	0	39						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39			
	2	2020	MDA	32	0	32						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32			
	2	2021	MDA	40	0	40						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40			
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	A	J	J	A	S		
							C	O	E	A	E	A	A	A	U	U	A	E	C	O	V	E	A	E	A	P	M	U	U	A	S	
							T	V	C	N	B	R	R	Y	N	L	G	P	T													

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							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
SM-3 Block IA Procurement																															
	1	2009	MDA	11	11	0																							0		
	1	2010	MDA	24	24	0																							0		
	1	2011	MDA	22	22	0																							0		
	1	2012	MDA	14	14	0																							0		
SM-3 Block IB Procurement																															
	2	2012	MDA	14	14	0																							0		
	2	2013	MDA	33	33	0																							0		
	2	2014	MDA	52	52	0																							0		
	2	2015	MDA	52	52	0																							0		
	2	2016	MDA	46	46	0																							0		
	2	2017	MDA	35	35	0																							0		
	2	2018	MDA	44	23	21	-	-	-	-	6	8	1	5	1														0		
	2	2019	MDA	39	0	39	-	-	-	-	-	-	-	5	2	2	3	-	-	10	-	-	12	5					0		
	2	2020	MDA	32	0	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	8	-	20
	2	2021	MDA	40	0	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	
							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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024												Fiscal Year 2025												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024												Calendar Year 2025												
							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
SM-3 Block IA Procurement																															
	1	2009	MDA	11	11	0																							0		
	1	2010	MDA	24	24	0																							0		
	1	2011	MDA	22	22	0																							0		
	1	2012	MDA	14	14	0																							0		
SM-3 Block IB Procurement																															
	2	2012	MDA	14	14	0																							0		
	2	2013	MDA	33	33	0																							0		
	2	2014	MDA	52	52	0																							0		
	2	2015	MDA	52	52	0																							0		
	2	2016	MDA	46	46	0																							0		
	2	2017	MDA	35	35	0																							0		
	2	2018	MDA	44	44	0																							0		
	2	2019	MDA	39	39	0																							0		
	2	2020	MDA	32	12	20	-	-	10	-	-	10																	0		
	2	2021	MDA	40	0	40	-	-	-	-	-	-	8	-	-	10	-	10	-	-	12								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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IB
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Raytheon - Tucson, AZ				4	0	30	30	4	0	30	30
2	Raytheon - Tucson, AZ	1	4	5	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17		P-1 Line Item Number / Title: MD09 / AEGIS BMD
		Item Number / Title [DODIC]: Aegis BMD SM-3 Block IIA

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)	30	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	851.058	0.000	0.000	-	-	-
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	851.058	0.000	0.000	-	-	-
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	851.058	0.000	0.000	-	-	-

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	28.369	0.000	0.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
SM-3 Block IIA Procurement ^(†)	27.018	30	810.533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	810.533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	810.533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware Cost																		
Recurring Cost																		
Canisters Procurement SM-3 Block IIA	1.224	32	39.171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	39.171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	39.171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support Cost																		
SM-3 Block IIA Production Engineering	1.354	1	1.354	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	1.354	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	28.369	30	851.058	0.000	-	0.000	0.000	-	0.000	-	-	-	-	-	-	-	-	-

Remarks:

N/A

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IIA
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SM-3 Block IIA Procurement ^(†)		2018	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Aug 2018	Mar 2022	20	26.848	Y		
SM-3 Block IIA Procurement ^(†)		2019	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Dec 2019	Jan 2023	10	25.403	Y		Aug 2019

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IIA
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE																	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019																												
							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																
SM-3 Block IIA Procurement																																															
1		2018	MDA	20	0	20																							A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
1		2019	MDA	10	0	10																																								10	
							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																	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IIA
--	--	---

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020														Fiscal Year 2021														BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020														Calendar Year 2021														
							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					
SM-3 Block IIA Procurement																																			
	1	2018	MDA	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20				
	1	2019	MDA	10	0	10			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10					
							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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD09 / AEGIS BMD	Item Number / Title [DODIC]: Aegis BMD SM-3 Block IIA
--	--	---

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Raytheon - Tucson, AZ	1	1	2	0	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD09 / AEGIS BMD
--	--

Program Elements for Code B Items: 0603892C, 0604881C	Other Related Program Elements: 0603892C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Gross/Weapon System Cost (<i>\$ in Millions</i>)	141.896	17.493	0.000	-	-	-	-	-	-	-	-	159.389
Net Procurement (P-1) (<i>\$ in Millions</i>)	141.896	17.493	0.000	-	-	-	-	-	-	-	-	159.389
Total Obligation Authority (<i>\$ in Millions</i>)	141.896	17.493	0.000	-	-	-	-	-	-	-	-	159.389

Description:

The Missile Defense Agency awarded a five year Multi-Year Procurement (MYP) contract for 198 Standard Missile-3 Block IBs in FY 2019 through FY 2023 (final delivery FY 2026). This multiyear contract strategy uses Economic Order Quantity Advance Procurement (EOQ AP) funding to provide the U.S. Government maximum savings in price and delivery schedule. No EOQ AP was appropriated in FY 2019 with \$96.995 million requested was appropriated in FY 2020 and requested \$44.901 million Economic Order Quantity. This MYP requests \$44.901 million EOQ AP funding in FY 2021. This MYP request \$17.493 million EOQ AP funding in FY 2022 which results in savings for bulk purchases of materials and components to reduce material costs and for investments in productivity enhancements to reduce labor costs. The EOQ AP funding in FY 2020-FY 2022 supports the production of 127 All Up Rounds (AUR). EOQ AP funding will enable Raytheon Missile Defense Systems to bulk order materials with long lead times, and authorize equipment suppliers and subcontractors to do the same with sufficient lead time to support the planned delivery schedule within the context of the multiyear funding, prices, and cancellation ceilings.

Many components have minimum buy quantities which may not be met under single year procurements, which result in increased unit costs. EOQ AP quantities will allow the prime contractor and subcontractors at all tiers to exceed minimum order quantities and capture cost avoidance on these components. Long-term Agreements will provide price discounts to guarantee business. Given EOQ AP, suppliers will have increased business and stability. Suppliers will implement innovative processes and capital investments necessary to reduce costs which result in missile unit cost savings. As a result of these process innovations and capital investments, obsolescence risks and costs are also expected to be minimized.

Procuring at a guaranteed rate of minimum production will also yield cost avoidances. Allowing the contractor to manage facilities and subcontractors to a guaranteed production rate will reduce costs by allowing the Prime and subcontractors to engage in activities including, but not limited to, reducing the number of production set-ups.

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Exhibit P-40, Advance Procurement Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD09 / AEGIS BMD
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Program Elements for Code B Items: 0603892C, 0604881C	Other Related Program Elements: 0603892C
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Line Item MDAP/MAIS Code: 362

Exhibits Schedule				Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Exhibit Type	Title*	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-10	Aegis BMD SM-3 Block IB			387 / 141.896	40 / 17.493	47 / 0.000	27 / -	- / -	27 / -
P-40	Total Gross/Weapon System Cost			417 / 141.896	40 / 17.493	47 / 0.000	27 / -	- / -	27 / -

*Title represents the P-10 Title for Advance Procurement.

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

Justification:
 EOQ AP procures long lead items in bulk for FY 2021 through FY 2023 lots in order to reduce the cost of subcontractor effort, material, and components as compared to single future fiscal year lot buys. The bulk advance buys enable greater production efficiencies and substantial cost savings over separate single year lot buys.

Advance Procurement (FY 2021 \$44.901 million and FY 2022 \$17.493 million) funding procured the following major items for the FY 2022 through FY 2023 lots:

1. Kinetic Warhead Guidance Unit (29 month lead time) with estimated savings of 18% across MYP contract.
2. Third Stage Rocket Motors (24 month lead time) with estimated savings of 13% across MYP contract.
3. Throttling Divert Attitude Control System (25 month lead time) with estimated savings of 13% across MYP contract.
4. MK-72 Booster (25 month lead time) with estimated savings of 12% across MYP contract.
5. Guidance Section (Gravity Switch, Thermal Batteries) (23 month lead time) with estimated savings of 3% across MYP contract.
6. Sub-components and raw materials to facilitate production efficiencies including Integrated Dewar Assembly Substrates, Fiber Material, Beryllium Material, Electronic Components, Printed Wire Boards, Housings, Antennas and Shell Material.

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Exhibit P-10, Advance Procurement Requirements Analysis (page 1 - Budget Funding Justification): PB 2024 Missile Defense Agency					Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17			P-1 Line Item Number / Title: MD09 / AEGIS BMD		P-5 Number / Title: Aegis BMD SM-3 Block IB	
First System (2024) Award Date: January 2018		First System (2024) Completion Date: October 2020		Interval Between Systems: 1 Months		
Aegis BMD SM-3 Block IB		Production Leadtime <i>(Months)</i>	Prior Years <i>(Each)</i>	FY 2022 <i>(Each)</i>	FY 2023 <i>(Each)</i>	FY 2024 <i>(Each)</i>
Quantity		30	387	40	47	27
Cost Elements		When Required <i>(Months)</i>	Prior Years <i>(\$ M)</i>	FY 2022 <i>(\$ M)</i>	FY 2023 <i>(\$ M)</i>	FY 2024 <i>(\$ M)</i>
EOQ						
Aegis Advanced Procurement		0	141.896	17.493	-	0.000
Total: EOQ			141.896	17.493	0.000	0.000
Total Advance Procurement/Obligation Authority			141.896	17.493	0.000	-

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Exhibit P-10, Advance Procurement Requirements Analysis (page 2 - Budget Funding Justification): PB 2024 Missile Defense Agency						Date: March 2023	
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17			P-1 Line Item Number / Title: MD09 / AEGIS BMD			P-5 Number / Title: Aegis BMD SM-3 Block IB	
FY 2024							
Cost Elements	QPA (Each)	Production Leadtime (Months)	Unit Cost (\$ M)	Contract Forecast Date	2024 Qty (Each)	For FY	Total Cost Request (\$ M)
EOQ							
Aegis Advanced Procurement	0						0.000
<i>Total: EOQ</i>							<i>0.000</i>
Total Advance Procurement/Obligation Authority							-

Description:
The Advance Procurement (AP) funding provides economic order quantity (EOQ) to reduce the cost of subcontractor effort, material, and components enabling greater production efficiencies and substantial cost savings.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD11 / BMDS Sensors
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0603881C, 0603884C	Other Related Program Elements: 0603884C, 0603881C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	6	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,904.988	2.738	4.606	29.108	-	29.108	35.257	13.382	27.475	10.200	-	3,027.754
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,904.988	2.738	4.606	29.108	-	29.108	35.257	13.382	27.475	10.200	-	3,027.754
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,904.988	2.738	4.606	29.108	-	29.108	35.257	13.382	27.475	10.200	-	3,027.754

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

Initial Spares (<i>\$ in Millions</i>)	10.901	-	-	-	-	-	-	-	-	-	-	10.901
Flyaway Unit Cost (<i>\$ in Millions</i>)	172.502	-	-	-	-	-	-	-	-	-	Continuing	Continuing
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	484.165	0.000	0.000	-	-	-	-	-	-	-	-	-

Description:

The Army Navy/Transportable Radar Surveillance and Control (AN/TPY-2) radar is an integral component of the Missile Defense System layered network of sensors. It is transportable and can be configured to operate as either a Terminal High Altitude Area Defense (THAAD) Fire Unit Radar (terminal mode) or Forward-Based Radar. The forward-based AN/TPY-2 provides detection and tracking during the boost phase. This significantly reduces the uncertainty in target discrimination and reaction time, increasing the probability of a successful Missile Defense System engagement. In forward-based mode, the AN/TPY-2 also provides acquisition and track data via the Missile Defense System Command, Control, Battle Management and Communications and Link 16 to the Aegis Missile Defense System for cueing. The AN/TPY-2 used in terminal mode is an integral component of the THAAD Battery. The THAAD battery radar is capable of tracking multiple threats and multiple interceptors during engagements in the terminal phase. It provides surveillance, acquisition, track, discrimination, interceptor communications, and hit assessment data collection for fire control.

Prior year procurement funding acquired five AN/TPY-2 Radars required to complete the THAAD Battery acquisitions. "Procurement Quantity" and "Flyaway Unit Cost" represent AN/TPY-2 radar systems ((i.e. one Antenna Equipment Unit (AEU), one Cooling Equipment Unit (CEU), one Electronic Equipment Unit (EEU), and two Prime Power Units (PPU)) only, but the "Net Procurement" cost plus the Initial Spares amount includes the costs of all hardware. The AEU Transformer and PPU procurement addressed the obsolescence in major end items and was completed in FY 2020.

The AN/TPY-2 EEU Modification Kits and Radar Field Upgrade Kits provided updated processing capabilities and added a cybersecurity server in the EEUs in both Terminal and Forward-based modes. The AEU transformers include design improvements to extend the life of this mission critical component.

The Next Generation server procurement updates the existing servers and enhances cybersecurity protection and processing capability for the fleet.

The Change Notices procure CEU modernization kits and bring the fleets CEUs into a common, more reliable configuration.

The Digital Receiver/Exciter (DREX) kit procurement will upgrade the current analog Receiver/Exciter (REX) technology to a modern digital capability, increasing reliability and spares availability for the fleet.

The Advanced Signal Processor (ASP) kit procurement, when used with the DREX, will upgrade the system waveform processing capability to align signal-processing capability with advanced waveform types and provide a scalable, distributed processing solution and enhanced capability against emerging threats.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency

P-1 Line Item Number / Title:
MD11 / BMDS Sensors

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0603881C, 0603884C **Other Related Program Elements:** 0603884C, 0603881C

Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	BMDS AN/TPY-2 Radars	P-5a, P-21	A		6 / 2,904.988	- / 2.738	- / 4.606	- / 29.108	- / -	- / 29.108
P-40	Total Gross/Weapon System Cost				6 / 2,904.988	- / 2.738	- / 4.606	- / 29.108	- / -	- / 29.108

*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:

The increase from Fiscal Year (FY) 2023 to FY 2024 provides for the procurement of (4) DREX kits, (6) Next Generation Servers (Cyber), and Radar 13 Initial Spares and AC/DC converters.

FY 2024 through FY 2028 base procurement provides:

- Next Generation servers to upgrade the existing servers and enhance cybersecurity protection and processing capability for the fleet.
- DREX kits to upgrade the current analog REX technology to a modern digital capability increasing reliability and availability to the fleet.
- ASP kits to provide a scalable, distributed processing solution and enhanced capability against emerging threats.
- Radar 13 Initial Spares and AC/DC Converters increasing R13 reliability availability.

Procurement quantity above reflects procurement of complete radars only. Seven (7) of the thirteen (13) AN/TPY-2 Radars procured to date were funded with Research Development Test and Evaluation (RDT&E) in Program Element 0603884C, thus not included in the costs above.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency						Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17			P-1 Line Item Number / Title: MD11 / BMDS Sensors			Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars		
ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:				
Resource Summary			Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)			6	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)			2,904.988	2.738	4.606	29.108	-	29.108
Less PY Advance Procurement (\$ in Millions)			0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)			2,904.988	2.738	4.606	29.108	-	29.108
Plus CY Advance Procurement (\$ in Millions)			0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)			2,904.988	2.738	4.606	29.108	-	29.108
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)			484.165	0.000	0.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
AN/TPY-2 Major End Item CN Kits ^(†)	-	-	-	2.738	1	2.738	-	-	-	-	-	-	-	-	-	-	-	-
AN/TPY-2 Next Generation Servers/ Network Kits	-	-	-	-	-	-	-	-	-	1.340	6	8.039	-	-	-	1.340	6	8.039
AN/TPY-2 Secure Servers (Cyber) ^(†)	1.862	2	3.724	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antenna Equipment Unit (AEU) ^(†)	136.075	6	816.451	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antenna Equipment Unit (AEU) Transformer ^(†)	1.083	10	10.829	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
COBRA DANE Transmitter Group Replacement ^(†)	9.704	2	19.408	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cooling Equipment Unit (CEU) ^(†)	8.107	6	48.642	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Spares ^(†)	9.742	3	29.227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DREX kit ^(†)	-	-	-	-	-	-	1.152	4	4.606	2.241	4	8.962	-	-	-	2.241	4	8.962
Electronic Equipment Unit (EEU) ^(†)	22.321	6	133.927	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency													Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17						P-1 Line Item Number / Title: MD11 / BMDS Sensors						Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars						
ID Code (A=Service Ready, B=Not Service Ready) : A										MDAP/MAIS Code:								

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Electronic Equipment Unit (EEU) Modification Kit ^(†)	4.850	5	24.248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Float Antenna Equipment Unit (AEU) ^(†)	62.019	1	62.019	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Float Cooling Equipment Unit (CEU) ^(†)	12.929	2	25.857	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Float Electronic Equipment Unit (EEU) ^(†)	21.491	2	42.982	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Forward-Based Mode Prime Power Units (PPU) ^(†)	10.985	4	43.940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prime Power Unit (PPUs - 2 each radar system) ^(†)	15.251	7	106.760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transmit/Receive Integrated Microwave Module (TRIMMs) ^(†)	59.840	1	59.840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
†Radar Field Upgrade (RAFU) Kit	1,450.000	1	1,450.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	2,877.854	-	-	2.738	-	-	4.606	-	-	17.001	-	-	-	-	-	17.001
Non Recurring Cost																		
Antenna Equipment Unit (AEU) Radome ^(†)	1.525	1	1.525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antenna Equipment Unit (AEU) Transformer Hoses	0.001	180	0.151	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CEU Fan Motors ^(†)	0.122	24	2.933	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contractor Certification ^(†)	2.862	1	2.862	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radar 13 Initial Spares and AC/DC Converters	-	-	-	-	-	-	-	-	-	12.107	1	12.107	-	-	-	12.107	1	12.107
Reference Horn Switch Assembly (RHSA) Retrofit Kits ^(†)	0.242	1	0.242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retrofit Firewall Kits ^(†)	0.092	37	3.421	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17						P-1 Line Item Number / Title: MD11 / BMDS Sensors						Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Non Recurring Cost</i>	-	-	11.134	-	-	-	-	-	-	-	-	12.107	-	-	-	-	-	12.107
<i>Subtotal: Hardware Cost</i>	-	-	2,888.988	-	-	2.738	-	-	4.606	-	-	29.108	-	-	-	-	-	29.108
Support Cost																		
Program Support*	16.000	1	16.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	16.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	484.165	6	2,904.988	0.000	-	2.738	0.000	-	4.606	-	-	29.108	-	-	-	-	-	29.108

Remarks:

AN/TPY-2 Radar consists of one Antenna Equipment Unit (AEU), one Cooling Equipment Unit (CEU), one Electronic Equipment Unit (EEU) and two Prime Power Units (PPUs).

Procurement quantity above reflects procurement of complete radars only. Seven (7) of the thirteen (13) AN/TPY-2 Radars procured to date were funded with Research Development Test and Evaluation (RDT&E) in Program Element (PE) 0603884C, thus not included in the costs above.

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency								Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17			P-1 Line Item Number / Title: MD11 / BMDS Sensors					Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
AN/TPY-2 Major End Item CN Kits - 1 ^(†)		2022	Raytheon / Woburn, MA	C / BA	MDA, Huntsville, AL	Oct 2021	Apr 2022	1	2.738	N		May 2021
AN/TPY-2 Secure Servers (Cyber) - Lot ^(†)		2019	Raytheon / Woburn, MA	C / BA	MDA, Huntsville, AL	Feb 2019	Aug 2020	2	1.862	N		Jun 2018
Antenna Equipment Unit (AEU) ^(†)		2010	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2010	Dec 2012	1	144.290	Y		
Antenna Equipment Unit (AEU) ^(†)		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	2	144.090	Y		
Antenna Equipment Unit (AEU) - 1 ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2012	Jun 2015	1	126.400	Y		
Antenna Equipment Unit (AEU) - 2 ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2013	Jun 2016	1	126.400	Y		
Antenna Equipment Unit (AEU) - 1 ^(†)		2021	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Aug 2021	Feb 2024	1	164.040	N		Feb 2021
Antenna Equipment Unit (AEU) Transformer ^(†)		2015	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2014	Sep 2015	3	1.775	Y		
Antenna Equipment Unit (AEU) Transformer ^(†)		2016	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2015	Sep 2016	1	0.410	Y		
Antenna Equipment Unit (AEU) Transformer ^(†)		2017	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2016	Sep 2017	1	0.919	Y		
Antenna Equipment Unit (AEU) Transformer ^(†)		2018	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2017	Sep 2018	1	0.947	Y		
Antenna Equipment Unit (AEU) Transformer ^(†)		2019	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2018	Sep 2019	2	0.978	Y		
Antenna Equipment Unit (AEU) Transformer ^(†)		2020	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2019	Sep 2020	2	0.869	N		
COBRA DANE Transmitter Group Replacement ^(†)		2018	Raytheon / Washington, D.C.	C / IDIQ	MDA, Huntsville, AL	Apr 2018	Apr 2019	1	11.000	Y		
COBRA DANE Transmitter Group Replacement ^(†)		2019	Raytheon / Washington, D.C.	C / IDIQ	MDA, Huntsville, AL	Jun 2019	Jun 2020	1	8.000	Y		
Cooling Equipment Unit (CEU) ^(†)		2010	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2010	Dec 2012	1	7.800	Y		
Cooling Equipment Unit (CEU) ^(†)		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	2	7.668	Y		
Cooling Equipment Unit (CEU) - 1 ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2012	Jun 2015	1	6.802	Y		
Cooling Equipment Unit (CEU) - 2 ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2013	Jun 2016	1	6.802	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Cooling Equipment Unit (CEU) ^(†)		2021	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Aug 2021	Aug 2024	1	13.660	N		Feb 2021
Critical Spares ^(†)		2014	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	May 2014	May 2015	1	14.361	Y		
Critical Spares ^(†)		2015	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2014	Dec 2015	1	11.391	Y		
Critical Spares ^(†)		2016	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2015	Dec 2016	1	3.475	Y		
DREX kit - 1 ^(†)		2023	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2023	Jan 2024	4	1.151	N		Dec 2021
Electronic Equipment Unit (EEU) ^(†)		2010	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2010	Dec 2012	1	23.400	Y		
Electronic Equipment Unit (EEU) ^(†)		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	2	23.000	Y		
Electronic Equipment Unit (EEU) - 1 ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2012	Jun 2015	1	20.220	Y		
Electronic Equipment Unit (EEU) - 2 ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2013	Jun 2016	1	20.220	Y		
Electronic Equipment Unit (EEU) ^(†)		2021	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Aug 2021	Feb 2024	1	29.355	N		Feb 2021
Electronic Equipment Unit (EEU) Modification Kit ^(†)		2015	Raytheon / Woburn, MA	SS / FFP	M	Dec 2014	Jun 2015	3	2.795	Y		
Electronic Equipment Unit (EEU) Modification Kit ^(†)		2016	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Mar 2016	Sep 2016	1	3.183	Y		
Electronic Equipment Unit (EEU) Modification Kit ^(†)		2017	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2016	Jun 2017	1	3.134	Y		
Float Antenna Equipment Unit (AEU) ^(†)		2016	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2015	Jun 2018	1	62.019	Y		
Float Cooling Equipment Unit (CEU) ^(†)		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	1	7.140	Y		
Float Cooling Equipment Unit (CEU) ^(†)		2014	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Sep 2014	Dec 2015	1	18.721	Y		
Float Electronic Equipment Unit (EEU) ^(†)		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	1	20.260	Y		
Float Electronic Equipment Unit (EEU) ^(†)		2014	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Sep 2014	Sep 2016	1	22.718	Y		
Forward-Based Mode Prime Power Units (PPU) ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2012	Dec 2014	4	10.985	Y		
Prime Power Unit (PPUs - 2 each radar system) ^(†)		2010	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Jun 2010	Dec 2012	1	15.600	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Prime Power Unit (PPUs - 2 each radar system) ^(†)		2012	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2011	Jun 2014	2	15.336	Y		
Prime Power Unit (PPUs - 2 each radar system) - 1 ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2012	Jun 2015	1	13.895	Y		
Prime Power Unit (PPUs - 2 each radar system) - 2 ^(†)		2013	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2013	Jun 2016	1	13.895	Y		
Prime Power Unit (PPUs - 2 each radar system) ^(†)		2021	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Aug 2021	Aug 2024	2	18.108	N		Feb 2021
Transmit/Receive Integrated Microwave Module (TRIMMs) ^(†)		2015	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2014	Jun 2016	1	59.840	Y		
Antenna Equipment Unit (AEU) Radome - Raytheon ^(†)		2020	Raytheon / Huntsville	C / BA	Huntsville, AL	Jan 2020	Sep 2020	1	1.525	N		May 2019
CEU Fan Motors - Raytheon ^(†)		2020	Raytheon / Huntsville	C / BA	Huntsville, AL	Dec 2019	Sep 2020	24	0.122	N		Oct 2019
Contractor Certification ^(†)		2015	Raytheon / Woburn, MA	SS / FFP	MDA, Huntsville, AL	Dec 2014	Dec 2015	1	2.862	Y		
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon ^(†)		2020	Raytheon / Huntsville	C / BA	Huntsville, AL	Feb 2020	Sep 2020	1	0.242	N		Oct 2019
Retrofit Firewall Kits - Raytheon ^(†)		2020	Raytheon / Huntsville	C / BA	Huntsville, AL	Dec 2019	Sep 2020	37	0.092	N		Nov 2019

^(†) indicates the presence of a P-21

Remarks:
N/A

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2010													Fiscal Year 2011													BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2009	BAL DUE AS OF 1 OCT	Calendar Year 2010													Calendar Year 2011													
							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			
AN/TPY-2 Major End Item CN Kits - 1																																	
	1	2022	MDA	1	0	1																							1				
AN/TPY-2 Secure Servers (Cyber) - Lot																																	
	2	2019	MDA	2	0	2																							2				
Antenna Equipment Unit (AEU)																																	
	3	2010	MDA	1	0	1																							1				
	3	2012	MDA	2	0	2																							2				
Antenna Equipment Unit (AEU) - 1																																	
	3	2013	MDA	1	0	1																							1				
	3	2021	MDA	1	0	1																							1				
Antenna Equipment Unit (AEU) - 2																																	
	3	2013	MDA	1	0	1																							1				
Antenna Equipment Unit (AEU) Transformer																																	
	4	2015	MDA	3	0	3																							3				
	4	2016	MDA	1	0	1																							1				
	4	2017	MDA	1	0	1																							1				
	4	2018	MDA	1	0	1																							1				
	4	2019	MDA	2	0	2																							2				
	4	2020	MDA	2	0	2																							2				
COBRA DANE Transmitter Group Replacement																																	
	5	2018	MDA	1	0	1																							1				
	5	2019	MDA	1	0	1																							1				
Cooling Equipment Unit (CEU)																																	
	6	2010	MDA	1	0	1																							1				
	6	2012	MDA	2	0	2																							2				
	6	2021	MDA	1	0	1																							1				
Cooling Equipment Unit (CEU) - 1																																	
	6	2013	MDA	1	0	1																							1				
Cooling Equipment Unit (CEU) - 2																																	
	6	2013	MDA	1	0	1																							1				
Critical Spares																																	
	7	2014	MDA	1	0	1																							1				
	7	2015	MDA	1	0	1																							1				
							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			

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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2010												Fiscal Year 2011												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2009	BAL DUE AS OF 1 OCT	Calendar Year 2010												Calendar Year 2011												
							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
Transmit/Receive Integrated Microwave Module (TRIMMs)																															
	16	2015	MDA	1	0	1																							1		
Antenna Equipment Unit (AEU) Radome - Raytheon																															
	17	2020	MDA	1	0	1																							1		
CEU Fan Motors - Raytheon																															
	18	2020	MDA	24	0	24																							24		
Contractor Certification																															
	19	2015	MDA	1	0	1																							1		
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon																															
	20	2020	MDA	1	0	1																							1		
Retrofit Firewall Kits - Raytheon																															
	21	2020	MDA	37	0	37																							37		
							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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2012														Fiscal Year 2013														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 1	BAL DUE A S O F 1 O C T	Calendar Year 2012														Calendar Year 2013														
							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					
AN/TPY-2 Major End Item CN Kits - 1																																			
	1	2022	MDA	1	0	1																							1						
AN/TPY-2 Secure Servers (Cyber) - Lot																																			
	2	2019	MDA	2	0	2																							2						
Antenna Equipment Unit (AEU)																																			
	3	2010	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0						
	3	2012	MDA	2	0	2			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2						
Antenna Equipment Unit (AEU) - 1																																			
	3	2013	MDA	1	0	1																							1						
	3	2021	MDA	1	0	1																							1						
Antenna Equipment Unit (AEU) - 2																																			
	3	2013	MDA	1	0	1																							1						
Antenna Equipment Unit (AEU) Transformer																																			
	4	2015	MDA	3	0	3																							3						
	4	2016	MDA	1	0	1																							1						
	4	2017	MDA	1	0	1																							1						
	4	2018	MDA	1	0	1																							1						
	4	2019	MDA	2	0	2																							2						
	4	2020	MDA	2	0	2																							2						
COBRA DANE Transmitter Group Replacement																																			
	5	2018	MDA	1	0	1																							1						
	5	2019	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU)																																			
	6	2010	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0						
	6	2012	MDA	2	0	2			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2						
	6	2021	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU) - 1																																			
	6	2013	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU) - 2																																			
	6	2013	MDA	1	0	1																							1						
Critical Spares																																			
	7	2014	MDA	1	0	1																							1						
	7	2015	MDA	1	0	1																							1						
							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					

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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2012														Fiscal Year 2013														BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2011	BAL DUE AS OF 1 OCT	Calendar Year 2012														Calendar Year 2013															
							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						
Transmit/Receive Integrated Microwave Module (TRIMMs)																																				
	16	2015	MDA	1	0	1																														1
Antenna Equipment Unit (AEU) Radome - Raytheon																																				
	17	2020	MDA	1	0	1																														1
CEU Fan Motors - Raytheon																																				
	18	2020	MDA	24	0	24																														24
Contractor Certification																																				
	19	2015	MDA	1	0	1																														1
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon																																				
	20	2020	MDA	1	0	1																														1
Retrofit Firewall Kits - Raytheon																																				
	21	2020	MDA	37	0	37																														37
							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						

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Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2014														Fiscal Year 2015														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014														Calendar Year 2015														
							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					
AN/TPY-2 Major End Item CN Kits - 1																																			
	1	2022	MDA	1	0	1																							1						
AN/TPY-2 Secure Servers (Cyber) - Lot																																			
	2	2019	MDA	2	0	2																							2						
Antenna Equipment Unit (AEU)																																			
	3	2010	MDA	1	1	0																							0						
	3	2012	MDA	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0						
Antenna Equipment Unit (AEU) - 1																																			
	3	2013	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0						
	3	2021	MDA	1	0	1																							1						
Antenna Equipment Unit (AEU) - 2																																			
	3	2013	MDA	1	0	1				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1						
Antenna Equipment Unit (AEU) Transformer																																			
	4	2015	MDA	3	0	3																							0						
	4	2016	MDA	1	0	1																							1						
	4	2017	MDA	1	0	1																							1						
	4	2018	MDA	1	0	1																							1						
	4	2019	MDA	2	0	2																							2						
	4	2020	MDA	2	0	2																							2						
COBRA DANE Transmitter Group Replacement																																			
	5	2018	MDA	1	0	1																							1						
	5	2019	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU)																																			
	6	2010	MDA	1	1	0																							0						
	6	2012	MDA	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0						
	6	2021	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU) - 1																																			
	6	2013	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0						
Cooling Equipment Unit (CEU) - 2																																			
	6	2013	MDA	1	0	1				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1						
Critical Spares																																			
	7	2014	MDA	1	0	1																							0						
	7	2015	MDA	1	0	1																							1						
							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					

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Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016														Fiscal Year 2017														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017														
							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					
AN/TPY-2 Major End Item CN Kits - 1																																			
	1	2022	MDA	1	0	1																							1						
AN/TPY-2 Secure Servers (Cyber) - Lot																																			
	2	2019	MDA	2	0	2																							2						
Antenna Equipment Unit (AEU)																																			
	3	2010	MDA	1	1	0																							0						
	3	2012	MDA	2	2	0																							0						
Antenna Equipment Unit (AEU) - 1																																			
	3	2013	MDA	1	1	0																							0						
	3	2021	MDA	1	0	1																							1						
Antenna Equipment Unit (AEU) - 2																																			
	3	2013	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0						
Antenna Equipment Unit (AEU) Transformer																																			
	4	2015	MDA	3	3	0																							0						
	4	2016	MDA	1	0	1																							0						
	4	2017	MDA	1	0	1																							0						
	4	2018	MDA	1	0	1																							1						
	4	2019	MDA	2	0	2																							2						
	4	2020	MDA	2	0	2																							2						
COBRA DANE Transmitter Group Replacement																																			
	5	2018	MDA	1	0	1																							1						
	5	2019	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU)																																			
	6	2010	MDA	1	1	0																							0						
	6	2012	MDA	2	2	0																							0						
	6	2021	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU) - 1																																			
	6	2013	MDA	1	1	0																							0						
Cooling Equipment Unit (CEU) - 2																																			
	6	2013	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0						
Critical Spares																																			
	7	2014	MDA	1	1	0																							0						
	7	2015	MDA	1	0	1	-	-	1																				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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							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
Transmit/Receive Integrated Microwave Module (TRIMMs)																															
	16	2015	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0		
Antenna Equipment Unit (AEU) Radome - Raytheon																															
	17	2020	MDA	1	0	1																							1		
CEU Fan Motors - Raytheon																															
	18	2020	MDA	24	0	24																							24		
Contractor Certification																															
	19	2015	MDA	1	0	1	-	-	-	1																			0		
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon																															
	20	2020	MDA	1	0	1																							1		
Retrofit Firewall Kits - Raytheon																															
	21	2020	MDA	37	0	37																							37		
							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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018														Fiscal Year 2019														BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019														
							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					
AN/TPY-2 Major End Item CN Kits - 1																																			
	1	2022	MDA	1	0	1																							1						
AN/TPY-2 Secure Servers (Cyber) - Lot																																			
	2	2019	MDA	2	0	2																							2						
Antenna Equipment Unit (AEU)																																			
	3	2010	MDA	1	1	0																							0						
	3	2012	MDA	2	2	0																							0						
Antenna Equipment Unit (AEU) - 1																																			
	3	2013	MDA	1	1	0																							0						
	3	2021	MDA	1	0	1																							1						
Antenna Equipment Unit (AEU) - 2																																			
	3	2013	MDA	1	1	0																							0						
Antenna Equipment Unit (AEU) Transformer																																			
	4	2015	MDA	3	3	0																							0						
	4	2016	MDA	1	1	0																							0						
	4	2017	MDA	1	1	0																							0						
	4	2018	MDA	1	0	1																							0						
	4	2019	MDA	2	0	2																							0						
	4	2020	MDA	2	0	2																							0						
COBRA DANE Transmitter Group Replacement																																			
	5	2018	MDA	1	0	1																							0						
	5	2019	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU)																																			
	6	2010	MDA	1	1	0																							0						
	6	2012	MDA	2	2	0																							0						
	6	2021	MDA	1	0	1																							1						
Cooling Equipment Unit (CEU) - 1																																			
	6	2013	MDA	1	1	0																							0						
Cooling Equipment Unit (CEU) - 2																																			
	6	2013	MDA	1	1	0																							0						
Critical Spares																																			
	7	2014	MDA	1	1	0																							0						
	7	2015	MDA	1	1	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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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
Transmit/Receive Integrated Microwave Module (TRIMMs)																															
	16	2015	MDA	1	1	0																							0		
Antenna Equipment Unit (AEU) Radome - Raytheon																															
	17	2020	MDA	1	0	1																							1		
CEU Fan Motors - Raytheon																															
	18	2020	MDA	24	0	24																							24		
Contractor Certification																															
	19	2015	MDA	1	1	0																							0		
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon																															
	20	2020	MDA	1	0	1																							1		
Retrofit Firewall Kits - Raytheon																															
	21	2020	MDA	37	0	37																							37		
							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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020														Fiscal Year 2021														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020														Calendar Year 2021														
							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					
AN/TPY-2 Major End Item CN Kits - 1																																			
	1	2022	MDA	1	0	1																							1						
AN/TPY-2 Secure Servers (Cyber) - Lot																																			
	2	2019	MDA	2	0	2	-	-	-	-	-	-	-	-	-	-	2												0						
Antenna Equipment Unit (AEU)																																			
	3	2010	MDA	1	1	0																							0						
	3	2012	MDA	2	2	0																							0						
Antenna Equipment Unit (AEU) - 1																																			
	3	2013	MDA	1	1	0																							0						
	3	2021	MDA	1	0	1																					A -	-	1						
Antenna Equipment Unit (AEU) - 2																																			
	3	2013	MDA	1	1	0																							0						
Antenna Equipment Unit (AEU) Transformer																																			
	4	2015	MDA	3	3	0																							0						
	4	2016	MDA	1	1	0																							0						
	4	2017	MDA	1	1	0																							0						
	4	2018	MDA	1	1	0																							0						
	4	2019	MDA	2	2	0																							0						
	4	2020	MDA	2	0	2																					A -	-	0						
COBRA DANE Transmitter Group Replacement																																			
	5	2018	MDA	1	1	0																							0						
	5	2019	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	1												0						
Cooling Equipment Unit (CEU)																																			
	6	2010	MDA	1	1	0																							0						
	6	2012	MDA	2	2	0																							0						
	6	2021	MDA	1	0	1																						A -	-	1					
Cooling Equipment Unit (CEU) - 1																																			
	6	2013	MDA	1	1	0																							0						
Cooling Equipment Unit (CEU) - 2																																			
	6	2013	MDA	1	1	0																							0						
Critical Spares																																			
	7	2014	MDA	1	1	0																							0						
	7	2015	MDA	1	1	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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020													Fiscal Year 2021													BALANCE		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020													Calendar Year 2021														
							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				
Transmit/Receive Integrated Microwave Module (TRIMMs)																																		
	16	2015	MDA	1	1	0																								0				
Antenna Equipment Unit (AEU) Radome - Raytheon																																		
	17	2020	MDA	1	0	1				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0				
CEU Fan Motors - Raytheon																																		
	18	2020	MDA	24	0	24				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	0				
Contractor Certification																																		
	19	2015	MDA	1	1	0																								0				
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon																																		
	20	2020	MDA	1	0	1				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0				
Retrofit Firewall Kits - Raytheon																																		
	21	2020	MDA	37	0	37				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37	0				
										O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
										C	O	E	A	E	A	A	U	U	U	E	C	O	V	E	A	F	A	A	U	U	U	U	G	P
										T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	A	P	Y	N	L	G	P

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022													Fiscal Year 2023													BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022													Calendar Year 2023													
							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			
AN/TPY-2 Major End Item CN Kits - 1																																	
	1	2022	MDA	1	0	1	A	-	-	-	-	-	-	-	1														0				
AN/TPY-2 Secure Servers (Cyber) - Lot																																	
	2	2019	MDA	2	2	0																							0				
Antenna Equipment Unit (AEU)																																	
	3	2010	MDA	1	1	0																							0				
	3	2012	MDA	2	2	0																							0				
Antenna Equipment Unit (AEU) - 1																																	
	3	2013	MDA	1	1	0																							0				
	3	2021	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1				
Antenna Equipment Unit (AEU) - 2																																	
	3	2013	MDA	1	1	0																							0				
Antenna Equipment Unit (AEU) Transformer																																	
	4	2015	MDA	3	3	0																							0				
	4	2016	MDA	1	1	0																							0				
	4	2017	MDA	1	1	0																							0				
	4	2018	MDA	1	1	0																							0				
	4	2019	MDA	2	2	0																							0				
	4	2020	MDA	2	2	0																							0				
COBRA DANE Transmitter Group Replacement																																	
	5	2018	MDA	1	1	0																							0				
	5	2019	MDA	1	1	0																							0				
Cooling Equipment Unit (CEU)																																	
	6	2010	MDA	1	1	0																							0				
	6	2012	MDA	2	2	0																							0				
	6	2021	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1				
Cooling Equipment Unit (CEU) - 1																																	
	6	2013	MDA	1	1	0																							0				
Cooling Equipment Unit (CEU) - 2																																	
	6	2013	MDA	1	1	0																							0				
Critical Spares																																	
	7	2014	MDA	1	1	0																							0				
	7	2015	MDA	1	1	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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022														Fiscal Year 2023														B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							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					
Transmit/Receive Integrated Microwave Module (TRIMMs)																																			
	16	2015	MDA	1	1	0																							0						
Antenna Equipment Unit (AEU) Radome - Raytheon																																			
	17	2020	MDA	1	1	0																							0						
CEU Fan Motors - Raytheon																																			
	18	2020	MDA	24	24	0																							0						
Contractor Certification																																			
	19	2015	MDA	1	1	0																							0						
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon																																			
	20	2020	MDA	1	1	0																							0						
Retrofit Firewall Kits - Raytheon																																			
	21	2020	MDA	37	37	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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024														Fiscal Year 2025														BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 2 3	BAL D U E A S O F 1 O C T	Calendar Year 2024														Calendar Year 2025														
							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					
AN/TPY-2 Major End Item CN Kits - 1																																			
	1	2022	MDA	1	1	0																							0						
AN/TPY-2 Secure Servers (Cyber) - Lot																																			
	2	2019	MDA	2	2	0																							0						
Antenna Equipment Unit (AEU)																																			
	3	2010	MDA	1	1	0																							0						
	3	2012	MDA	2	2	0																							0						
Antenna Equipment Unit (AEU) - 1																																			
	3	2013	MDA	1	1	0																							0						
	3	2021	MDA	1	0	1																							0						
Antenna Equipment Unit (AEU) - 2																																			
	3	2013	MDA	1	1	0																							0						
Antenna Equipment Unit (AEU) Transformer																																			
	4	2015	MDA	3	3	0																							0						
	4	2016	MDA	1	1	0																							0						
	4	2017	MDA	1	1	0																							0						
	4	2018	MDA	1	1	0																							0						
	4	2019	MDA	2	2	0																							0						
	4	2020	MDA	2	2	0																							0						
COBRA DANE Transmitter Group Replacement																																			
	5	2018	MDA	1	1	0																							0						
	5	2019	MDA	1	1	0																							0						
Cooling Equipment Unit (CEU)																																			
	6	2010	MDA	1	1	0																							0						
	6	2012	MDA	2	2	0																							0						
	6	2021	MDA	1	0	1																							0						
Cooling Equipment Unit (CEU) - 1																																			
	6	2013	MDA	1	1	0																							0						
Cooling Equipment Unit (CEU) - 2																																			
	6	2013	MDA	1	1	0																							0						
Critical Spares																																			
	7	2014	MDA	1	1	0																							0						
	7	2015	MDA	1	1	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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD11 / BMDS Sensors	Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024														Fiscal Year 2025												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024														Calendar Year 2025												
							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			
Transmit/Receive Integrated Microwave Module (TRIMMs)																																	
	16	2015	MDA	1	1	0																							0				
Antenna Equipment Unit (AEU) Radome - Raytheon																																	
	17	2020	MDA	1	1	0																							0				
CEU Fan Motors - Raytheon																																	
	18	2020	MDA	24	24	0																							0				
Contractor Certification																																	
	19	2015	MDA	1	1	0																							0				
Reference Horn Switch Assembly (RHSA) Retrofit Kits - Raytheon																																	
	20	2020	MDA	1	1	0																							0				
Retrofit Firewall Kits - Raytheon																																	
	21	2020	MDA	37	37	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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17		P-1 Line Item Number / Title: MD11 / BMDS Sensors
		Item Number / Title [DODIC]: BMDS AN/TPY-2 Radars

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Raytheon - Woburn, MA	1	1	2	2	3	6	9	2	3	6	9
2	Raytheon - Woburn, MA		2	2	9	0	6	6	0	0	0	0
3	Raytheon - Woburn, MA	1	1	4	4	3	30	33	0	0	0	0
4	Raytheon - Woburn, MA	1	4	4	2	3	9	12	2	3	9	12
5	Raytheon - Washington, D.C.	1	1	1	3	2	12	14	3	2	12	14
6	Raytheon - Woburn, MA	1	1	4	4	2	30	32	0	0	0	0
7	Raytheon - Woburn, MA	1	1	4	4	2	12	14	4	2	12	14
8	Raytheon - Woburn, MA	1	1	4	2	6	9	15	6	3	6	9
9	Raytheon - Woburn, MA	1	1	4	4	2	30	32	0	0	0	0
10	Raytheon - Woburn, MA	1	2	4	2	3	6	9	2	3	6	9
11	Raytheon - Woburn, MA	1	1	4	4	2	30	32	0	0	0	0
12	Raytheon - Woburn, MA	1	1	4	4	2	15	17	0	0	0	0
13	Raytheon - Woburn, MA	1	1	4	4	2	24	26	0	0	0	0
14	Raytheon - Woburn, MA	1	1	4	4	2	24	26	0	0	0	0
15	Raytheon - Woburn, MA	1	1	4	4	2	30	32	0	0	0	0
16	Raytheon - Woburn, MA	1	1	4	4	2	18	20	4	2	18	20
17	Raytheon - Huntsville	1	1	1	2	3	6	9	2	3	6	9
18	Raytheon - Huntsville	1	1	24	2	3	6	9	2	3	6	9
19	Raytheon - Woburn, MA	1	1	1	3	2	12	14	3	2	12	14
20	Raytheon - Huntsville	1	1	37	2	3	6	9	2	3	6	9
21	Raytheon - Huntsville	1	1	37	2	3	3	6	2	3	3	6

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD14 / SM-3 Block IIA
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604881C, 0603892C	Other Related Program Elements: 0603892C, 0604878C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	16	16	24	12	-	12	12	12	12	12	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	556.322	488.022	669.975	432.824	-	432.824	507.705	464.094	457.932	467.091	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	556.322	488.022	669.975	432.824	-	432.824	507.705	464.094	457.932	467.091	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	556.322	488.022	669.975	432.824	-	432.824	507.705	464.094	457.932	467.091	Continuing	Continuing

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	27.944	24.618	25.974	31.836	-	31.836	33.790	34.180	33.841	34.165	Continuing	Continuing
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	34.770	30.501	27.916	36.069	-	36.069	42.309	38.675	38.161	38.924	Continuing	Continuing

Description:

Note:

In accordance with the Consolidated Appropriations Act 2020, SM-3 Block IIA was transferred to MD14 from MD09 in Fiscal Year (FY) 2020 and beyond. FY 2018 and FY 2019 SM-3 Block IIA funding is included in MD09.

Procurement Quantity" and "Flyaway Unit Cost" above represent SM-3 Block IIA missiles only, but the Net Procurement and Gross Weapon System costs includes all hardware and support costs including canisters, production engineering, obsolescence and system engineering, which are detailed in separate P-5s.

FY 2022 All Up Rounds (AURs) increased from 8 to 16 AURs as a result of the PB22 Congressional Plus up of \$192 Million.

Net Procurement and Gross Weapon System costs includes all hardware and support costs including canisters, production engineering, obsolescence and system engineering, which are detailed in separate P-5s.

The Sea-Based Weapon Systems mission is to deliver an operationally effective and supportable Ballistic Missile Defense (BMD) capability to defend the nation, deployed forces, and allies. Sea-Based Weapon Systems mission aims to increase this capability by delivering evolutionary improvements as part of Missile Defense System upgrades. Sea-Based Weapon Systems mission provides a forward-deployable, mobile capability to detect and track ballistic missiles of all ranges, and the ability to destroy Short-Range Ballistic Missiles, Medium-Range Ballistic Missiles, and Intermediate-Range Ballistic Missiles (IRBM) in the midcourse phase of flight. Upgrades to both the Aegis Weapon System and the SM-3 configuration provides effective and supportable defensive capability against longer range and more sophisticated threats and an enduring Aegis Ashore defensive capability.

The SM-3 Block IIA provides greater capability over SM-3 Block IB, including increased velocity and range provided by a 21-inch diameter rocket motor propulsion stack, more than doubled seeker sensitivity, and more than tripled divert capability incorporated in an advanced KW. New component technologies include, but are not limited to: lightweight nosecone, advanced KW, 21-inch second stage rocket motor, and 21-inch third stage rocket motor. Working in concert with the SM-3 Block IB, the SM-3 Block IIA, will increase the Ballistic Missile Defense System defended area and increase the probability of kill against a larger threat set. The SM-3 Block IIA is also a critical part of the Aegis Ashore Missile Defense System Complex - Romania and Poland, and is also vital to defense efforts for Aegis afloat in the European and Indo-Pacific Commands. This will provide a more robust protection of Europe and the Indo-Pacific. The SM-3 Block IIA also provides defense against IRBMs and other threats.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency

P-1 Line Item Number / Title:
MD14 / SM-3 Block IIA

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0604881C, 0603892C **Other Related Program Elements:** 0603892C, 0604878C

Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	Seabased BMD SM-3 Blk IIA	P-5a, P-21	A		16 / 556.322	16 / 488.022	24 / 669.975	12 / 432.824	- / -	12 / 432.824
P-40	Total Gross/Weapon System Cost				16 / 556.322	16 / 488.022	24 / 669.975	12 / 432.824	- / -	12 / 432.824

*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:
The decrease from FY 2023 to FY 2024 reflects the FY 2023 Congressional increase of \$332.0 million for 14 additional SM-3 IIA interceptors.

The FY 2024 budget request includes 12 AURs, hardware and support costs including canisters, production engineering, obsolescence and system engineering.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD14 / SM-3 Block IIA	Item Number / Title [DODIC]: Seabased BMD SM-3 Blk IIA
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (Units in Each)	16	16	24	12	-	12
Gross/Weapon System Cost (\$ in Millions)	556.322	488.022	669.975	432.824	-	432.824
Less PY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (\$ in Millions)	556.322	488.022	669.975	432.824	-	432.824
Plus CY Advance Procurement (\$ in Millions)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (\$ in Millions)	556.322	488.022	669.975	432.824	-	432.824

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

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	34.770	30.501	27.916	36.069	-	36.069

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
SBMD SM-3 Block IIA ⁽¹⁾	27.944	16	447.101	24.618	16	393.883	25.974	24	623.372	31.836	12	382.029	-	-	-	31.836	12	382.029
<i>Subtotal: Recurring Cost</i>	-	-	447.101	-	-	393.883	-	-	623.372	-	-	382.029	-	-	-	-	-	382.029
<i>Subtotal: Flyaway Cost</i>	-	-	447.101	-	-	393.883	-	-	623.372	-	-	382.029	-	-	-	-	-	382.029
Hardware Cost																		
Recurring Cost																		
Canisters Procurement SM-3 Block IIA (1)	0.996	18	17.919	1.189	17	20.210	1.326	25	33.144	1.352	13	17.580	-	-	-	1.352	13	17.580
<i>Subtotal: Recurring Cost</i>	-	-	17.919	-	-	20.210	-	-	33.144	-	-	17.580	-	-	-	-	-	17.580
<i>Subtotal: Hardware Cost</i>	-	-	17.919	-	-	20.210	-	-	33.144	-	-	17.580	-	-	-	-	-	17.580
Support Cost																		
SM-3 BLK IIA Diminishing Manufacturing Sources Mitigation (6)	-	-	-	65.642	1	65.642	4.468	1	4.468	4.517	1	4.517	-	-	-	4.517	1	4.517
SM-3 BLK IIA Investment Spares (2)	11.817	2	23.633	-	-	-	-	-	-	17.315	1	17.315	-	-	-	17.315	1	17.315
SM-3 BLK IIA Service Life Evaluation Programs (3)	24.069	2	48.137	-	-	-	3.273	1	3.273	-	-	-	-	-	-	-	-	-
SM-3 Block IIA Obsolescence (4)	4.931	2	9.861	1.721	1	1.721	2.934	1	2.934	3.090	1	3.090	-	-	-	3.090	1	3.090

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD14 / SM-3 Block IIA	Item Number / Title [DODIC]: Seabased BMD SM-3 Blk IIA
ID Code (A=Service Ready, B=Not Service Ready) : A		MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
SM-3 Block IIA Production Engineering (5)	4.836	2	9.671	6.566	1	6.566	2.784	1	2.784	8.293	1	8.293	-	-	-	8.293	1	8.293
<i>Subtotal: Support Cost</i>	-	-	91.302	-	-	73.929	-	-	13.459	-	-	33.215	-	-	-	-	-	33.215
Gross/Weapon System Cost	34.770	16	556.322	30.501	16	488.022	27.916	24	669.975	36.069	12	432.824	-	-	-	36.069	12	432.824

Remarks:

- (1) FMS buys enabled a lower unit cost for 16 interceptors. There are no FMS buys in FY 2024.
- (2) Canisters are required for each SM-3 procured. Historical trends have identified 1 canister per year breaking during delivery, thus the request for a spare canister.
- (3) SM-3 Block IIA Investment Spares are procured to coincide with the delivery of the missile and are required to support AURs during 6-year maintenance period.
- (4) SM-3 Block IIA Service Life Evaluation Program Testing and analysis program to demonstrate the safety and suitability of the SM-3 for an extended service life.
- (5) Obsolescence is the program's most effective and efficient way to minimize materiel readiness risks, realize future savings during production and sustainment, and improve overall life-cycle management. Identifies risk associated with the 800 vendors/suppliers discontinuing production of a component or raw material and then properly mitigating impacts to production. If not identified early, such activities will impact production and Fleet deliveries.
- (6) Production Engineering provides engineering efforts support of SM-3 Guided Missile Round (GMR) production activities, manage and resolve issues that arise during manufacturing, assembly, tests, and missile integration. This effort addresses production technical issues that arise within the entire SM-3 vendor/supplier base. Includes improvement and efficiency activities such as configuration management and control boards, engineering assessments of manufacturing process improvement changes, engineering assessments of sub-vendor production issues, and engineering and quality review of documentation and test data prior to missile acceptance by the government. Additionally, includes Special Tooling and Test Equipment, which sustains and maintains the tools and test equipment vital to manufacture and test prior to government acceptance of new SM-3 missiles.
- (7) Diminishing Manufacturing Sources Mitigation allows the program to mitigate the loss, or impending loss, of manufacturers of items or suppliers of items or of raw materials caused by several factors. These factors include new or evolving science, detection limits, toxicity values, and regulations related to chemicals and materials resulting in significant impact on the supply chain and industrial base.
- (t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD14 / SM-3 Block IIA	Item Number / Title [DODIC]: Seabased BMD SM-3 Blk IIA
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
SBMD SM-3 Block IIA ^(†)		2020	Raytheon / Tucson, AZ	SS / CPIF	Dahlgren, VA	Mar 2020	Oct 2023	7	27.345	N		Mar 2019

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD14 / SM-3 Block IIA	Item Number / Title [DODIC]: Seabased BMD SM-3 Blk IIA
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							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
SBMD SM-3 Block IIA																															
Prior Years Deliveries: 9																															
1	2020	MDA		7	0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7		
							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	

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD14 / SM-3 Block IIA	Item Number / Title [DODIC]: Seabased BMD SM-3 Blk IIA
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024												Fiscal Year 2025												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024												Calendar Year 2025												
							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
SBMD SM-3 Block IIA																															
Prior Years Deliveries: 9																															
1		2020	MDA		7	0	7	1	-	1	1	1	1	1	-	1	-	-	1											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

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency	Date: March 2023
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Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD14 / SM-3 Block IIA	Item Number / Title [DODIC]: Seabased BMD SM-3 Blk IIA
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Raytheon - Tucson, AZ		1	2	0	0	0	0	0	0	5	36	41

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD26 / Arrow 3 Upper Tier System
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603913C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	6	1	1	1	-	1	1	1	1	1	Continuing	Continuing
Gross/Weapon System Cost <i>(\$ in Millions)</i>	467.000	62.000	80.000	80.000	-	80.000	50.000	50.000	50.000	50.000	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	467.000	62.000	80.000	80.000	-	80.000	50.000	50.000	50.000	50.000	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	467.000	62.000	80.000	80.000	-	80.000	50.000	50.000	50.000	50.000	Continuing	Continuing

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	77.833	62.000	80.000	80.000	-	80.000	50.000	50.000	50.000	50.000	Continuing	Continuing

Description:

For procurement of Arrow Weapon System (AWS) components. Quantities are classified. The unit quantity of one is used as a proxy in each fiscal year with funding.

Change Summary: Funding profile mirrors the Program Funding Baseline that has been coordinated with Israeli Missile Defense Organization based on the Strategic Plan of the Memorandum Of Understanding between Israel and the U.S.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD26 / Arrow 3 Upper Tier System
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603913C
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Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	Israeli Program Procurement		A		6 / 467.000	1 / 62.000	1 / 80.000	1 / 80.000	- / -	1 / 80.000
P-40	Total Gross/Weapon System Cost				6 / 467.000	1 / 62.000	1 / 80.000	1 / 80.000	- / -	1 / 80.000

*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:
 For procurement of additional AWS components.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD26 / Arrow 3 Upper Tier System	Item Number / Title [DODIC]: Israeli Program Procurement
--	--	--

ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity <i>(Units in Each)</i>	6	1	1	1	-	1
Gross/Weapon System Cost <i>(\$ in Millions)</i>	467.000	62.000	80.000	80.000	-	80.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	467.000	62.000	80.000	80.000	-	80.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	467.000	62.000	80.000	80.000	-	80.000

(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 Millions)</i>	77.833	62.000	80.000	80.000	-	80.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Israeli Programs	77.833	6	467.000	62.000	1	62.000	80.000	1	80.000	80.000	1	80.000	-	-	-	80.000	1	80.000
<i>Subtotal: Recurring Cost</i>	-	-	467.000	-	-	62.000	-	-	80.000	-	-	80.000	-	-	-	-	-	80.000
<i>Subtotal: Hardware Cost</i>	-	-	467.000	-	-	62.000	-	-	80.000	-	-	80.000	-	-	-	-	-	80.000
Gross/Weapon System Cost	77.833	6	467.000	62.000	1	62.000	80.000	1	80.000	80.000	1	80.000	-	-	-	80.000	1	80.000

Remarks:

For procurement of AWS components. Quantities are classified. The unit quantity of one is used as a proxy in each fiscal year with funding.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD34 / Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))
--	--

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603913C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	6	1	1	1	-	1	1	1	1	1	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	570.000	30.000	40.000	40.000	-	40.000	40.000	40.000	40.000	40.000	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	570.000	30.000	40.000	40.000	-	40.000	40.000	40.000	40.000	40.000	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	570.000	30.000	40.000	40.000	-	40.000	40.000	40.000	40.000	40.000	Continuing	Continuing

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	95.000	30.000	40.000	40.000	-	40.000	40.000	40.000	40.000	40.000	Continuing	Continuing

Description:

Previously named David's Sling. Fiscal Year (FY) 2018 name change to Short Range Ballistic Missile Defense (SRBMD).

Provides funding to the Government of Israel to procure DSWS/SRBMD components. Quantities are classified. The unit quantity of one is used as a proxy in each FY with funding.

Change Summary: Funding profile mirrors the Program Funding Baseline that has been coordinated with Israeli Missile Defense Organization based on the Strategic Plan of the Memorandum Of Understanding between Israel and the U.S.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD34 / Short Range Ballistic Missile Defense (SRBMD)(David's Sling Weapon System (DSWS))
--	--

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603913C
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Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	1 / David's Sling Weapon System [1]		A		6 / 570.000	1 / 30.000	1 / 40.000	1 / 40.000	- / -	1 / 40.000
P-40	Total Gross/Weapon System Cost				6 / 570.000	1 / 30.000	1 / 40.000	1 / 40.000	- / -	1 / 40.000

*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:

For procurement of additional SRBMD/DSWS components.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD34 / Short Range Ballistic Missile Defense (SRBMD) (David's Sling Weapon System (DSWS))	Item Number / Title [DODIC]: 1 / David's Sling Weapon System [1]

ID Code (A=Service Ready, B=Not Service Ready) : A				MDAP/MAIS Code:			
Resource Summary		Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity <i>(Units in Each)</i>	6	1	1	1	1	-	1
Gross/Weapon System Cost <i>(\$ in Millions)</i>	570.000	30.000	40.000	40.000	40.000	-	40.000
Less PY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	570.000	30.000	40.000	40.000	40.000	-	40.000
Plus CY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	570.000	30.000	40.000	40.000	40.000	-	40.000
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	95.000	30.000	40.000	40.000	40.000	-	40.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
David's Sling Weapon System	95.000	6	570.000	30.000	1	30.000	40.000	1	40.000	40.000	1	40.000	-	-	-	40.000	1	40.000
<i>Subtotal: Recurring Cost</i>	-	-	570.000	-	-	30.000	-	-	40.000	-	-	40.000	-	-	-	-	-	40.000
<i>Subtotal: Hardware Cost</i>	-	-	570.000	-	-	30.000	-	-	40.000	-	-	40.000	-	-	-	-	-	40.000
Gross/Weapon System Cost	95.000	6	570.000	30.000	1	30.000	40.000	1	40.000	40.000	1	40.000	-	-	-	40.000	1	40.000

Remarks:

DSWS/SRBMD component procurement. Quantities are classified. The unit quantity of one is used as a proxy in each fiscal year with Funding.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD65 / Defense of Guam Procurement
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604102C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	0	-	-	1	-	1	-	-	-	-	-	1
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	80.000	26.514	169.627	-	169.627	85.693	5.274	-	-	-	367.108
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	80.000	26.514	169.627	-	169.627	85.693	5.274	-	-	-	367.108
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	80.000	26.514	169.627	-	169.627	85.693	5.274	-	-	-	367.108

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	169.627	-	169.627	-	-	-	-	-	367.108

Description:

The Missile Defense Agency (MDA) is developing a Missile Defense System for Guam defense against a range of missile threats. The Department of Defense has undertaken studies on a range of missile defense architecture options, emphasizing effectiveness, survivability, and flexibility against an evolving threat. The architecture design includes integration efforts between MDA, U.S. Army, and U.S. Navy systems. This Program Element supports Pacific Deterrence Initiative (PDI).

The FY 2024 architecture design includes integration efforts between MDA, U.S. Army, and U.S. Navy systems, which includes a 360 degree persistent integrated air and missile defense with distributed Mk-41 Vertical Launching Systems, Army Standard Missile Launchers, and an AN/TPY-6 (formerly AN/TPY-X) to provide for the Defense of Guam. Guam Architecture System will be controlled by a Joint Command Center with additional Integrated Air and Missile Defense Battle Command System; Aegis Guam System; and Command and Control, Battle Management and Communications (C2BMC) mission node providing local continuity of operations. Initial capability will be demonstrated on Guam in 2024, enhanced capability in 2029, and future additional capability in the 2030's. (Additional information available in a higher classification level).

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency

P-1 Line Item Number / Title:
MD65 / Defense of Guam Procurement

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604102C

Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	GDS AWS Equipment	P-5a, P-21	A		0 / 0.000	- / 80.000	- / 26.514	1 / 169.627	- / -	1 / 169.627
P-40	Total Gross/Weapon System Cost				0 / 0.000	- / 80.000	- / 26.514	1 / 169.627	- / -	1 / 169.627

*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 2024 Pacific Deterrence Initiative funding has increased by \$143 million for the procurement of Vertical Launch systems to the final architecture solution for Guam, as approved by the Department.

FY 2024 Procurement include:
 - Vertical Launch System to include Launcher Module Enclosures (LMEs), Launcher Control Units (LCUs), and support equipment
 - Ancillary Equipment to include Hobart Converters, AN/SPQ-15 Data Distribution System, AN/WSN-7 Inertial Navigation System, AN/USQ-82(V) Gigebit Ethernet Data Multiplex System (GEDMS), Universal Control Console (UCC), shipping containers, and support/test equipment

FY 2023 Includes:
 - Fire Control System
 - Integrated Friend or Foe System

FY 2022 New Start: Procurement included materiel to include Fire Control System; Multi-Mission Display; Command, Control, Communications, Computers and Intelligence; Common Display Processing Equipment; Common Processing System; and Vertical Launch Long Lead Material.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD65 / Defense of Guam Procurement	Item Number / Title [DODIC]: GDS AWS Equipment
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ID Code (A=Service Ready, B=Not Service Ready) : A **MDAP/MAIS Code:**

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity <i>(Units in Each)</i>	0	-	-	1	-	1
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	80.000	26.514	169.627	-	169.627
Less PY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	80.000	26.514	169.627	-	169.627
Plus CY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	80.000	26.514	169.627	-	169.627

(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 Millions)</i>	0.000	0.000	0.000	169.627	-	169.627

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost																		
AWS Equipment ^(t)	-	-	-	80.000	1	80.000	26.514	1	26.514	-	-	-	-	-	-	-	-	-
Ancillary Equipment	-	-	-	-	-	-	-	-	-	43.227	1	43.227	-	-	-	43.227	1	43.227
VLS	-	-	-	-	-	-	-	-	-	126.400	1	126.400	-	-	-	126.400	1	126.400
<i>Subtotal: Non Recurring Cost</i>	-	-	-	-	-	80.000	-	-	26.514	-	-	169.627	-	-	-	-	-	169.627
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	80.000	-	-	26.514	-	-	169.627	-	-	-	-	-	169.627
Gross/Weapon System Cost	0.000	0	0.000	0.000	-	80.000	0.000	-	26.514	169.627	1	169.627	-	-	-	169.627	1	169.627

Remarks:

Guam Vertical Launch System Launcher quantities are classified. The unit quantity of one is used as a proxy in each fiscal year with funding.

^(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD65 / Defense of Guam Procurement	Item Number / Title [DODIC]: GDS AWS Equipment
--	--	--

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
AWS Equipment ^(†)		2022	Various / Washington, D.C.	MIPR	Washington, D.C.	Nov 2022	Nov 2023	1	80.000	N		Nov 2021

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD65 / Defense of Guam Procurement	Item Number / Title [DODIC]: GDS AWS Equipment
--	--	--

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2023														Fiscal Year 2024														BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2022	BAL DUE AS OF 1 OCT	Calendar Year 2023														Calendar Year 2024														
							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					
AWS Equipment																																			
	1	2022	MDA	1	0	1		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0					
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S				
								C	O	E	A	E	A	P	A	U	U	U	E	C	O	V	E	A	E	A	A	U	U	U	E				
								T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P				

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD65 / Defense of Guam Procurement	Item Number / Title [DODIC]: GDS AWS Equipment
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Various - Washington, D.C.	1	1	1	0	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604881C, 0604880C, 0603892C	Other Related Program Elements: 0604880C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	1	-	-	-	-	-	-	-	-	-	-	1
Gross/Weapon System Cost (<i>\$ in Millions</i>)	575.944	27.866	30.056	2.390	-	2.390	0.976	-	-	-	-	637.232
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	575.944	27.866	30.056	2.390	-	2.390	0.976	-	-	-	-	637.232
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	575.944	27.866	30.056	2.390	-	2.390	0.976	-	-	-	-	637.232

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	575.944	0.000	0.000	-	-	-	-	-	-	-	-	637.232

Description:

The decrease from Fiscal Year (FY) 2023 to FY 2024 reflects completion of Aegis Ashore Poland construction and transition to the U.S. Navy. FY 2024 funding supports the material purchase towards High Altitude Electromagnetic Pulse (HEMP) certification.

On 17 December 2009, the President announced an overarching policy to provide regional missile defense to U.S. deployed forces, allies and partners in Europe called the European Phased Adaptive Approach (EPAA). Within this policy, a European PAA specifically addresses a timeline to deploy a mix of afloat and land-based missile defense capabilities. Aegis Ashore represents one of these land-based capabilities.

Aegis Ashore provides the Aegis Missile Defense capability against short and medium range ballistic missiles in an ashore configuration. It will be similar to the Aegis At-Sea Ballistic Missile Defense (BMD) capability inherent in the new Arleigh Burke-class Aegis destroyers (DDG-113 and following ships) to facilitate training and logistical support by the lead service, Navy. Aegis Ashore re-hosts the required BMD components of a Navy Destroyer in an ashore configuration to include a Deckhouse structure and Weapon System comprised of an AN/SPY-1D(V) radar, Vertical Launch System (VLS), computing infrastructure, Command, Control, Communications, Computers and Intelligence (C4I) systems, and operator consoles. Aegis Ashore can adapt to the threat and can be deployed to other regions as needed to provide persistent coverage for the Geographic Combatant Commanders. Phase III of EPAA (FY 2023) deploys a land based Aegis Ashore in Poland, and introduces an upgraded Standard Missile, the SM-3 Block IIA. This missile brings improved coverage against medium and intermediate range ballistic threats.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604881C, 0604880C, 0603892C	Other Related Program Elements: 0604880C
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Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	Aegis Ashore Poland, Equipment and Deckhouse	P-5a, P-21	A		1 / 575.944	- / 27.866	- / 30.056	- / 2.390	- / -	- / 2.390
P-40	Total Gross/Weapon System Cost				1 / 575.944	- / 27.866	- / 30.056	- / 2.390	- / -	- / 2.390

*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:
 The Aegis Ashore Poland funding profile addresses continued support to achieve High Altitude Electromagnetic Pulse (HEMP) certification as Aegis Ashore transitions to Navy, keep the individual components up to date with the Navy's destroyer modernization plan and install modifications as required to enhance co-existence with Broadband Wireless Access systems in the European theater. The Missile Defense Agency uses Research Development, Test, and Evaluation (RDT&E) (Program Element (PE)-0604880C) to operate, develop and test Aegis Ashore capability improvements at the Aegis Ashore Missile Defense Test Complex (AAMDTC) in Hawaii for implementation at operational sites. Procurement funding provides the following:

FY 2022 Initiated weapon system commissioning prior to Chief of Naval Operations acceptance and United States European Command (EUCOM) acceptance.
 FY 2023 Complete weapon system commissioning prior to Chief of Naval Operations acceptance and EUCOM acceptance.
 FY 2024 Continuation of HEMP certification as Aegis Ashore Poland construction completes and transitions to the U.S. Navy.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III	Item Number / Title [DODIC]: Aegis Ashore Poland, Equipment and Deckhouse

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity <i>(Units in Each)</i>	1	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	575.944	27.866	30.056	2.390	-	2.390
Less PY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	575.944	27.866	30.056	2.390	-	2.390
Plus CY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	575.944	27.866	30.056	2.390	-	2.390

(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 Millions)</i>	575.944	0.000	0.000	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Aegis Ashore Poland, Equipment and Deckhouse ^(t)	575.944	1	575.944	-	-	27.866	-	-	30.056	-	-	2.390	-	-	-	-	-	2.390
<i>Subtotal: Recurring Cost</i>	-	-	575.944	-	-	27.866	-	-	30.056	-	-	2.390	-	-	-	-	-	2.390
<i>Subtotal: Flyaway Cost</i>	-	-	575.944	-	-	27.866	-	-	30.056	-	-	2.390	-	-	-	-	-	2.390
Gross/Weapon System Cost	575.944	1	575.944	0.000	-	27.866	0.000	-	30.056	-	-	2.390	-	-	-	-	-	2.390

Remarks:

N/A

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency							Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17			P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III				Item Number / Title [DODIC]: Aegis Ashore Poland, Equipment and Deckhouse					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Aegis Ashore Poland, Equipment and Deckhouse ^(†)		2015	USACE / Poland	MIPR	Dahlgren VA	Jan 2016	Sep 2023	1	0.000	N		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17										P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III										Item Number / Title [DODIC]: Aegis Ashore Poland, Equipment and Deckhouse									

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2016										Fiscal Year 2017										BALANCE
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016										Calendar Year 2017										
							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	

Aegis Ashore Poland, Equipment and Deckhouse																															
1	2015	MDA		1	0	1				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17										P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III										Item Number / Title [DODIC]: Aegis Ashore Poland, Equipment and Deckhouse									

Cost Elements <i>(Units in Each)</i>							Fiscal Year 2018														Fiscal Year 2019														BALANCE
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019														
							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					

Aegis Ashore Poland, Equipment and Deckhouse																																				
1	2015	MDA		1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

							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					
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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17										P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III										Item Number / Title [DODIC]: Aegis Ashore Poland, Equipment and Deckhouse									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2020												Fiscal Year 2021												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	Calendar Year 2020												Calendar Year 2021												
							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

Aegis Ashore Poland, Equipment and Deckhouse																																			
1	2015	MDA		1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

							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				
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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency															Date: March 2023														
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17										P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III										Item Number / Title [DODIC]: Aegis Ashore Poland, Equipment and Deckhouse									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022												Fiscal Year 2023												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022												Calendar Year 2023												
							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

Aegis Ashore Poland, Equipment and Deckhouse																																		
1	2015	MDA		1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	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			
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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD73 / Aegis Ashore Phase III	Item Number / Title [DODIC]: Aegis Ashore Poland, Equipment and Deckhouse

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	USACE - Poland				0	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD83 / Iron Dome
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603913C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	10	1	1	1	-	1	1	1	1	1	Continuing	Continuing
Gross/Weapon System Cost <i>(\$ in Millions)</i>	1,641.630	1,108.000	80.000	80.000	-	80.000	110.000	110.000	110.000	110.000	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	1,641.630	1,108.000	80.000	80.000	-	80.000	110.000	110.000	110.000	110.000	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	1,641.630	1,108.000	80.000	80.000	-	80.000	110.000	110.000	110.000	110.000	Continuing	Continuing

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Millions)</i>	164.163	1,108.000	80.000	80.000	-	80.000	110.000	110.000	110.000	110.000	Continuing	Continuing

Description:

Provides funding to the Government of Israel to procure Iron Dome components. Quantities are classified. The unit quantity of one is used as a proxy in each fiscal year with funding.

Change Summary:

Funding profile mirrors the Program Funding Baseline that has been coordinated with Israeli Missile Defense Organization based on the Strategic Plan of the Memorandum Of Understanding between Israel and the U.S.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity:
0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency

P-1 Line Item Number / Title:
MD83 / Iron Dome

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603913C

Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	Iron Dome		A		10 / 1,641.630	1 / 1,108.000	1 / 80.000	1 / 80.000	- / -	1 / 80.000
P-40	Total Gross/Weapon System Cost				10 / 1,641.630	1 / 1,108.000	1 / 80.000	1 / 80.000	- / -	1 / 80.000

*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:
For procurement of additional Iron Dome components.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD83 / Iron Dome	Item Number / Title [DODIC]: Iron Dome

ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Procurement Quantity (<i>Units in Each</i>)	10	1	1	1	-	1
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,641.630	1,108.000	80.000	80.000	-	80.000
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,641.630	1,108.000	80.000	80.000	-	80.000
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,641.630	1,108.000	80.000	80.000	-	80.000

(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 Millions</i>)	164.163	1,108.000	80.000	80.000	-	80.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Iron Dome	164.163	10	1,641.630	1,108.000	1	1,108.000	80.000	1	80.000	80.000	1	80.000	-	-	-	80.000	1	80.000
<i>Subtotal: Recurring Cost</i>	-	-	1,641.630	-	-	1,108.000	-	-	80.000	-	-	80.000	-	-	-	-	-	80.000
<i>Subtotal: Hardware Cost</i>	-	-	1,641.630	-	-	1,108.000	-	-	80.000	-	-	80.000	-	-	-	-	-	80.000
Gross/Weapon System Cost	164.163	10	1,641.630	1,108.000	1	1,108.000	80.000	1	80.000	80.000	1	80.000	-	-	-	80.000	1	80.000

Remarks:
Procurement of additional Iron Dome components. Quantities are classified. The unit quantity of one is used as a proxy in each fiscal year with funding.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603892C
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Line Item MDAP/MAIS Code: 362

Resource Summary	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	133	7	6	9	-	9	5	5	2	2	Continuing	Continuing
Gross/Weapon System Cost (<i>\$ in Millions</i>)	665.040	79.791	78.181	27.825	-	27.825	44.886	28.442	35.485	31.771	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	665.040	79.791	78.181	27.825	-	27.825	44.886	28.442	35.485	31.771	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	0.000	0.000	0.000	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	665.040	79.791	78.181	27.825	-	27.825	44.886	28.442	35.485	31.771	Continuing	Continuing

(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	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	5.000	11.399	13.030	3.092	-	3.092	8.977	5.688	17.743	15.886	Continuing	Continuing

Description:

Provides the procurement, installation, fielding and deployment of integrated Aegis Ballistic Missile Defense (BMD) combat system to operational ships and sites for homeland and regional defense. The Sea-Based mission is to deliver an enduring, operationally effective and supportable BMD capability to defend the nation, deployed forces, friends and allies, and to increase this capability by delivering evolutionary improvements as part of Ballistic Missile Defense System (BMDS) upgrades. The Aegis BMD element of the Missile Defense System capitalizes upon and evolves from the existing United States Navy Aegis Weapons System (AWS) and Standard Missile (SM) infrastructures. Aegis BMD combat system provides a forward-deployable, mobile capability to detect and track Ballistic Missiles of all ranges, and the ability to destroy Short-Range Ballistic Missiles (SRBMs), Medium-Range Ballistic Missiles (MRBMs), and Intermediate-Range Ballistic Missiles (IRBMs) in the midcourse phase of flight, and shorter range missiles in the terminal phase of flight. The Aegis BMD combat system also provides a Long Range Surveillance and Track (LRS&T) capability to the Missile Defense System in support of early detection of BMD threats to the homeland. Upgrades to both the AWS and the SM-3 configuration provides effective and supportable defensive capability against longer range and more sophisticated threats, and an enduring Aegis Ashore defensive capability.

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Exhibit P-40, Budget Line Item Justification: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D: Procurement, Defense-Wide / BA 01: Major Equipment / BSA 17: Major Equipment, Missile Defense Agency	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603892C
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Line Item MDAP/MAIS Code: 362

Exhibits Schedule					Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 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-5	Aegis BMD Shipsets	P-5a, P-21	A		133 / 665.040	7 / 79.791	6 / 78.181	9 / 27.825	- / -	9 / 27.825
P-40	Total Gross/Weapon System Cost				133 / 665.040	7 / 79.791	6 / 78.181	9 / 27.825	- / -	9 / 27.825

*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 2024 procures and deploys Aegis BMD capabilities to operational ships and sites. A shipset consists of the procurement of cabinets, cabling, equipment, and other material required to support a single shipboard installation of the appropriate BMD baseline. Procurement Quantity represents shipsets only and excludes installation services and DMS.

The 4.x to BL 5.4.1 (BMD 4.1.3) upgrade is a joint effort with the U.S. Navy. Updates planned for 21 Flight I/II Destroyers (DDG). Capabilities delivered include discrimination and mission planner improvements, increased threat set, Sea Based Terminal (SBT) Increment II Capability Upgrade (CU), hypersonic tracking and reporting and other warfighter improvements.

The 5.x upgrade adds capability and capacity to achieve the European Phased Adaptive Approach (EPAA) Phase III requirements. Hardware and software updates, including Aegis BMD TI-12H, to 5.x shipsets provides warfighter improvements implemented through Combat System upgrades to meet emerging threats.

The Aegis BL 9.C2 (BMD 5.1) TI-12H Upgrade consists of hardware and associated computer program to upgrade existing in-service Aegis BL 9.C2 (BMD 5.1) TI-12 ships to a TI-16 compatible weapon system configuration.

The procurement and fielding of new BMD components impacted by DMS will allow for the continued production of 5.x and 4.x in support of EPAA Phase II and III requirements.

Decrease from FY2023 to FY2024 reflects the cancelation of BMD 4.2 development with Low Noise Amplifier hardware upgrade and transition to BMD 4.1.3 non-LNA hardware capability upgrades.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency											Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17				P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software							Item Number / Title [DODIC]: Aegis BMD Shipsets				
ID Code (A=Service Ready, B=Not Service Ready) : A						MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	
Procurement Quantity (Units in Each)				133		7		6		9		-		9	
Gross/Weapon System Cost (\$ in Millions)				665.040		79.791		78.181		27.825		-		27.825	
Less PY Advance Procurement (\$ in Millions)				0.000		0.000		0.000		-		-		-	
Net Procurement (P-1) (\$ in Millions)				665.040		79.791		78.181		27.825		-		27.825	
Plus CY Advance Procurement (\$ in Millions)				0.000		0.000		0.000		-		-		-	
Total Obligation Authority (\$ in Millions)				665.040		79.791		78.181		27.825		-		27.825	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)				-		-		-		-		-		-	
Gross/Weapon System Unit Cost (\$ in Millions)				5.000		11.399		13.030		3.092		-		3.092	

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Aegis BL 5.4.0 (BMD 4.1.2) Installs ^(†)	0.551	13	7.158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aegis BL 5.4.0 (BMD 4.1.2) Procurement ^(†)	0.237	18	4.257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aegis BL 5.4.1 (BMD 4.1.3) Hardware Procurement	-	-	-	-	-	-	-	-	-	1.200	7	8.401	-	-	-	1.200	7	8.401
Aegis BL 5.4.1 (BMD 4.1.3) Installs	-	-	-	-	-	-	-	-	-	1.473	1	1.473	-	-	-	1.473	1	1.473
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement ^(†)	15.118	4	60.470	2.296	3	6.888	2.247	3	6.741	-	-	-	-	-	-	-	-	-
Aegis BL 5.4.1 (BMD 4.2) Installs	-	-	-	-	-	-	7.599	2	15.198	-	-	-	-	-	-	-	-	-
Aegis BL 5.4.1 (BMD 4.2) Refurbishments ^(†)	-	-	-	17.450	1	17.450	11.615	2	23.229	-	-	-	-	-	-	-	-	-
Aegis BL 9.C1 (5.0 CU) Installs	1.400	1	1.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aegis BL 9.C2 (BMD 5.1) BackFit Installs ^(†)	1.026	16	16.420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aegis BL 9.C2 (BMD 5.1) BackFit Procurement ^(†)	2.194	17	37.297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency												Date: March 2023					
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17						P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software						Item Number / Title [DODIC]: Aegis BMD Shipsets					
ID Code (A=Service Ready, B=Not Service Ready) : A												MDAP/MAIS Code:					

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2022			FY 2023			FY 2024 Base			FY 2024 OCO			FY 2024 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)	1.556	12	18.675	1.494	3	4.481	1.387	2	2.774	1.308	1	1.308	-	-	-	1.308	1	1.308
Aegis BL 9.C2 (BMD 5.1) Inline Procurements ^(†)	4.536	14	63.500	6.489	3	19.466	5.834	3	17.503	6.381	2	12.761	-	-	-	6.381	2	12.761
Aegis BMD 3.6 to 4.X Hardware Procurements ^(†)	13.655	11	150.203	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aegis BMD 3.6 to 4.X Installs ^(†)	20.477	12	245.724	25.437	1	25.437	-	-	-	-	-	-	-	-	-	-	-	-
Aegis BMD DMS ^(†)	0.570	12	6.835	0.230	13	2.991	0.469	5	2.346	-	-	-	-	-	-	-	-	-
Aegis BMD TI-12H Upgrade Installs ^(†)	2.279	4	9.114	0.466	1	0.466	1.466	6	8.796	-	-	-	-	-	-	-	-	-
Aegis BMD TI-12H Upgrade Procurement ^(†)	3.534	10	35.336	2.612	1	2.612	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	656.389	-	-	79.791	-	-	76.587	-	-	23.943	-	-	-	-	-	23.943
<i>Subtotal: Hardware Cost</i>	-	-	656.389	-	-	79.791	-	-	76.587	-	-	23.943	-	-	-	-	-	23.943
Software Cost																		
Recurring Cost																		
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs ^(†)	0.606	9	5.451	-	-	-	0.399	4	1.594	0.388	10	3.882	-	-	-	0.388	10	3.882
Aegis BMD 4.0 to 4.X Software Installs	0.533	6	3.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	8.651	-	-	-	-	-	1.594	-	-	3.882	-	-	-	-	-	3.882
<i>Subtotal: Software Cost</i>	-	-	8.651	-	-	-	-	-	1.594	-	-	3.882	-	-	-	-	-	3.882
Gross/Weapon System Cost	5.000	133	665.040	11.399	7	79.791	13.030	6	78.181	3.092	9	27.825	-	-	-	3.092	9	27.825

Remarks:

All Shipset procurements and installs are in alignment with Navy Ship Fielding Plan as of 12 Dec 2022.

The Aegis BL 9.C2 (BMD 5.1) upgrade installs consist of an Aegis Weapon System, Command/Control/Communication, Kill Assessment (KAS) and Vertical Launching System hardware and associated computer program necessary to upgrade an in-service non-BMD ship to BL 9.C2 (BMD 5.1).

The Aegis BMD Production DMS Procurements allows for the continued production of BMD 5.x and BL 5.4 (BMD 4.1) combat system hardware impacted by production hardware obsolescence, and the installation of this hardware on in-service BMD 5.x and BL 5.4 (BMD 4.1) ships to reduce configuration variance and sustainment complexity.

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Exhibit P-5, Cost Analysis: PB 2024 Missile Defense Agency		Date: March 2023
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software	Item Number / Title [DODIC]: Aegis BMD Shipsets
ID Code (A=Service Ready, B=Not Service Ready) : A	MDAP/MAIS Code:	
<p>The Aegis BL 9.C2 (BMD 5.1) TI-12H Upgrade Installs consist of hardware and associated computer program necessary to upgrade existing in-service Aegis BL 9.C2.0 (BMD 5.1.0) TI-12 ships to Aegis BL 9.C2.1 (BMD 5.1.x) TI-12H compatible weapon system configuration.</p> <p>The Aegis BL 9.B/C2 (BMD 5.1) Capability Upgrade Installs deliver incremental Common Source Library (CSL) capability upgrades to the BMD 5.1 ships and sites providing increased performance against emergent threats.</p> <p>(t) indicates the presence of a P-5a</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency										Date: March 2023		
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17				P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software				Item Number / Title [DODIC]: Aegis BMD Shipsets				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Aegis BL 5.4.0 (BMD 4.1.2) Installs		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Jun 2020	Sep 2020	3	0.650	N		Jun 2019
Aegis BL 5.4.0 (BMD 4.1.2) Installs ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington DC	Jun 2020	Sep 2020	5	0.160	Y		Jun 2019
Aegis BL 5.4.0 (BMD 4.1.2) Installs ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2020	Nov 2021	5	0.409	Y		Feb 2020
Aegis BL 5.4.0 (BMD 4.1.2) Installs		2023	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington D.C.	Nov 2022	Nov 2023	0	0.000	N		Feb 2020
Aegis BL 5.4.0 (BMD 4.1.2) Procurement ^(†)		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Apr 2019	Mar 2020	10	0.167	Y		Jan 2018
Aegis BL 5.4.0 (BMD 4.1.2) Procurement ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Apr 2020	Sep 2020	8	0.200	Y		Jan 2019
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Dec 2019	Dec 2020	1	51.996	Y		Mar 2019
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Dec 2020	Dec 2022	3	2.825	Y		Mar 2020
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement ^(†)		2022	Lockheed Martin / Moorestown, N.J.	C / BA	Washington, D.C.	Nov 2021	Jun 2024	3	2.296	N		Jul 2020
Aegis BL 5.4.1 (BMD 4.2) Refurbishments ^(†)		2022	Lockheed Martin / Lockheed Martin, Moorestown, N.J.	C / BA	Washington, DC	Nov 2021	Nov 2022	1	17.450	N		Nov 2020
Aegis BL 9.C2 (BMD 5.1) BackFit Installs ^(†)		2017	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Jun 2017	Oct 2018	3	1.134	Y		Aug 2016
Aegis BL 9.C2 (BMD 5.1) BackFit Installs ^(†)		2018	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Nov 2017	Jun 2018	8	0.710	Y		Feb 2017
Aegis BL 9.C2 (BMD 5.1) BackFit Installs ^(†)		2019	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Jun 2019	Apr 2020	3	0.762	Y		Jun 2018
Aegis BL 9.C2 (BMD 5.1) BackFit Installs ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Feb 2020	Jun 2020	2	1.485	Y		Jun 2019
Aegis BL 9.C2 (BMD 5.1) BackFit Installs		2021	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Jun 2020	Dec 2020	0	0.000	Y		Dec 2019
Aegis BL 9.C2 (BMD 5.1) BackFit Procurement		2016	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Nov 2015	Jan 2016	11	2.194	N		Sep 2015
Aegis BL 9.C2 (BMD 5.1) BackFit Procurement ^(†)		2017	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2017	Aug 2018	6	2.533	Y		Jul 2016
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)		2017	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2017	Aug 2018	1	3.310	Y		Jul 2016
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)		2018	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Jan 2018	Jan 2019	3	0.450	Y		Jul 2017

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency								Date: March 2023				
Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17			P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software					Item Number / Title [DODIC]: Aegis BMD Shipsets				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Jan 2019	Jan 2020	2	0.636	Y		Jul 2018
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Jan 2020	Jan 2021	3	0.460	Y		Jul 2019
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2020	Aug 2022	3	1.270	Y		Jul 2020
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)		2022	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2021	Feb 2022	3	1.494	Y		Jul 2021
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)		2023	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2022	Feb 2023	2	1.387	Y		Jul 2022
Aegis BL 9.C2 (BMD 5.1) Inline Installs ^(†)		2024	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2023	Feb 2024	1	1.308	Y		Jul 2023
Aegis BL 9.C2 (BMD 5.1) Inline Procurements		2016	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	May 2016	Nov 2017	2	4.122	N		Jul 2015
Aegis BL 9.C2 (BMD 5.1) Inline Procurements ^(†)		2017	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	May 2017	Nov 2018	1	3.913	Y		Jul 2016
Aegis BL 9.C2 (BMD 5.1) Inline Procurements ^(†)		2018	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2018	Apr 2019	3	3.735	Y		Jul 2017
Aegis BL 9.C2 (BMD 5.1) Inline Procurements ^(†)		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2019	Aug 2020	2	3.738	Y		Jun 2018
Aegis BL 9.C2 (BMD 5.1) Inline Procurements ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2020	Aug 2021	3	3.871	Y		Jun 2019
Aegis BL 9.C2 (BMD 5.1) Inline Procurements ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Apr 2021	Jun 2022	3	6.599	N		Apr 2020
Aegis BL 9.C2 (BMD 5.1) Inline Procurements ^(†)		2022	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Apr 2022	Jun 2023	3	6.489	Y		Nov 2021
Aegis BL 9.C2 (BMD 5.1) Inline Procurements ^(†)		2023	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Apr 2023	Jun 2024	3	5.834	N		Nov 2022
Aegis BMD 3.6 to 4.X Hardware Procurements		2016	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2016	Aug 2017	6	13.519	N		Jul 2015
Aegis BMD 3.6 to 4.X Hardware Procurements ^(†)		2017	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2017	Aug 2018	1	12.100	Y		Jul 2016
Aegis BMD 3.6 to 4.X Hardware Procurements ^(†)		2018	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2018	Aug 2019	3	12.100	Y		Jul 2017
Aegis BMD 3.6 to 4.X Hardware Procurements ^(†)		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2019	Aug 2020	1	15.010	Y		Jun 2018

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software	Item Number / Title [DODIC]: Aegis BMD Shipsets
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Aegis BMD 3.6 to 4.X Installs		2016	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Jan 2016	May 2017	1	17.831	N		May 2015
Aegis BMD 3.6 to 4.X Installs ^(†)		2017	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Jan 2017	Jun 2018	1	9.100	Y		May 2016
Aegis BMD 3.6 to 4.X Installs ^(†)		2018	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Feb 2018	Feb 2019	5	7.100	Y		Aug 2016
Aegis BMD 3.6 to 4.X Installs ^(†)		2019	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Nov 2017	Sep 2019	3	18.299	Y		Nov 2017
Aegis BMD 3.6 to 4.X Installs ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Nov 2019	Jul 2021	1	7.500	Y		Nov 2018
Aegis BMD 3.6 to 4.X Installs ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2020	Nov 2022	1	42.365	Y		Feb 2020
Aegis BMD 3.6 to 4.X Installs ^(†)		2022	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Washington, D.C.	Dec 2021	Dec 2022	1	25.621	Y		Feb 2021
Aegis BMD DMS ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Apr 2021	Jun 2022	12	0.570	N		Nov 2020
Aegis BMD DMS ^(†)		2022	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Apr 2022	Jun 2023	13	0.230	N		Nov 2021
Aegis BMD DMS ^(†)		2023	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Apr 2023	Jun 2024	5	0.469	N		Nov 2022
Aegis BMD TI-12H Upgrade Installs ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Oct 2020	Nov 2020	4	2.279	Y		Feb 2020
Aegis BMD TI-12H Upgrade Installs ^(†)		2022	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Oct 2021	Nov 2021	1	0.467	Y		Jul 2021
Aegis BMD TI-12H Upgrade Installs ^(†)		2023	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Oct 2022	Nov 2022	6	1.466	Y		Jul 2022
Aegis BMD TI-12H Upgrade Procurement		2019	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Dec 2019	Aug 2020	2	3.311	N		Jul 2019
Aegis BMD TI-12H Upgrade Procurement ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2020	Oct 2020	5	3.419	Y		Jun 2019
Aegis BMD TI-12H Upgrade Procurement ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2021	Oct 2021	3	3.871	N		Apr 2020
Aegis BMD TI-12H Upgrade Procurement ^(†)		2022	Lockheed Martin / Moorestown, N.J.	SS / FPIF	Washington, D.C.	Feb 2022	Oct 2022	1	2.612	N		Apr 2021
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs ^(†)		2020	Lockheed Martin / Moorestown, N.J.	SS / CPIF	Dahlgren, VA	Apr 2020	Sep 2020	8	0.160	Y		Apr 2019
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs ^(†)		2021	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2020	Aug 2021	1	0.306	Y		Feb 2020
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs ^(†)		2023	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2022	Aug 2023	4	0.399	Y		Oct 2022
Aegis BL 9.B/C2 (BMD 5.1) Software Upgrade Installs ^(†)		2024	Lockheed Martin / Moorestown, N.J.	SS / FFP	Washington, D.C.	Nov 2023	Aug 2024	10	0.388	Y		Feb 2023

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Exhibit P-5a, Procurement History and Planning: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software	Item Number / Title [DODIC]: Aegis BMD Shipsets
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^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software	Item Number / Title [DODIC]: Aegis BMD Shipsets
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Cost Elements <i>(Units in Each)</i>					Fiscal Year 2016													Fiscal Year 2017													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017													
							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			
Aegis BL 5.4.0 (BMD 4.1.2) Installs																																	
	1	2020	MDA	5	0	5																							5				
	1	2021	MDA	5	0	5																							5				
Aegis BL 5.4.0 (BMD 4.1.2) Procurement																																	
	2	2019	MDA	10	0	10																							10				
	3	2020	MDA	8	0	8																							8				
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement																																	
	4	2020	MDA	1	0	1																							1				
	4	2021	MDA	3	0	3																							3				
	4	2022	MDA	3	0	3																							3				
Aegis BL 5.4.1 (BMD 4.2) Refurbishments																																	
	5	2022	MDA	1	0	1																							1				
Aegis BL 9.C2 (BMD 5.1) BackFit Installs																																	
	6	2017	MDA	3	0	3																					A -	-	-	-	3		
	6	2018	MDA	8	0	8																								8			
	6	2019	MDA	3	0	3																								3			
	6	2020	MDA	2	0	2																								2			
Aegis BL 9.C2 (BMD 5.1) BackFit Procurement																																	
	7	2017	MDA	6	0	6																					A -	-	-	-	6		
Aegis BL 9.C2 (BMD 5.1) Inline Installs																																	
	8	2017	MDA	1	0	1																						A -	-	-	-	1	
	8	2018	MDA	3	0	3																								3			
	8	2019	MDA	2	0	2																								2			
	8	2020	MDA	3	0	3																								3			
	8	2021	MDA	3	0	3																								3			
	8	2022	MDA	3	0	3																								3			
	8	2023	MDA	2	0	2																								2			
	8	2024	MDA	1	0	1																								1			
Aegis BL 9.C2 (BMD 5.1) Inline Procurements																																	
	9	2017	MDA	1	0	1																						A -	-	-	-	1	
	9	2018	MDA	3	0	3																								3			
	9	2019	MDA	2	0	2																								2			
	9	2020	MDA	3	0	3																								3			
							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			

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software	Item Number / Title [DODIC]: Aegis BMD Shipsets
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018														Fiscal Year 2019												BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019													
							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				
Aegis BL 5.4.0 (BMD 4.1.2) Installs																																		
	1	2020	MDA	5	0	5																											5	
	1	2021	MDA	5	0	5																											5	
Aegis BL 5.4.0 (BMD 4.1.2) Procurement																																		
	2	2019	MDA	10	0	10																											10	
	3	2020	MDA	8	0	8																											8	
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement																																		
	4	2020	MDA	1	0	1																											1	
	4	2021	MDA	3	0	3																											3	
	4	2022	MDA	3	0	3																											3	
Aegis BL 5.4.1 (BMD 4.2) Refurbishments																																		
	5	2022	MDA	1	0	1																											1	
Aegis BL 9.C2 (BMD 5.1) BackFit Installs																																		
	6	2017	MDA	3	0	3	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	1					0		
	6	2018	MDA	8	0	8		A	-	-	-	-	-	-	1	-	-	4	-	-	-	1	-	-	1	-	1					0		
	6	2019	MDA	3	0	3																						A	-	-	-	-	3	
	6	2020	MDA	2	0	2																											2	
Aegis BL 9.C2 (BMD 5.1) BackFit Procurement																																		
	7	2017	MDA	6	0	6	-	-	-	-	-	-	-	-	-	-	6																0	
Aegis BL 9.C2 (BMD 5.1) Inline Installs																																		
	8	2017	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	1																0	
	8	2018	MDA	3	0	3																											0	
	8	2019	MDA	2	0	2																												2
	8	2020	MDA	3	0	3																												3
	8	2021	MDA	3	0	3																												3
	8	2022	MDA	3	0	3																												3
	8	2023	MDA	2	0	2																												2
	8	2024	MDA	1	0	1																												1
Aegis BL 9.C2 (BMD 5.1) Inline Procurements																																		
	9	2017	MDA	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1												0	
	9	2018	MDA	3	0	3																												2
	9	2019	MDA	2	0	2																												2
	9	2020	MDA	3	0	3																												3
							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				

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software	Item Number / Title [DODIC]: Aegis BMD Shipsets
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2022														Fiscal Year 2023														BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	Calendar Year 2022														Calendar Year 2023														
							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					
Aegis BL 5.4.0 (BMD 4.1.2) Installs																																			
	1	2020	MDA	5	5	0																							0						
	1	2021	MDA	5	0	5	-		5																				0						
Aegis BL 5.4.0 (BMD 4.1.2) Procurement																																			
	2	2019	MDA	10	10	0																							0						
	3	2020	MDA	8	8	0																							0						
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement																																			
	4	2020	MDA	1	1	0																							0						
	4	2021	MDA	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0						
	4	2022	MDA	3	0	3		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3						
Aegis BL 5.4.1 (BMD 4.2) Refurbishments																																			
	5	2022	MDA	1	0	1		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0						
Aegis BL 9.C2 (BMD 5.1) BackFit Installs																																			
	6	2017	MDA	3	3	0																							0						
	6	2018	MDA	8	8	0																							0						
	6	2019	MDA	3	3	0																							0						
	6	2020	MDA	2	2	0																							0						
Aegis BL 9.C2 (BMD 5.1) BackFit Procurement																																			
	7	2017	MDA	6	6	0																							0						
Aegis BL 9.C2 (BMD 5.1) Inline Installs																																			
	8	2017	MDA	1	1	0																							0						
	8	2018	MDA	3	3	0																							0						
	8	2019	MDA	2	2	0																							0						
	8	2020	MDA	3	3	0																							0						
	8	2021	MDA	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2						
	8	2022	MDA	3	0	3		A	-	-	-	-	3																0						
	8	2023	MDA	2	0	2																							0						
	8	2024	MDA	1	0	1																							1						
Aegis BL 9.C2 (BMD 5.1) Inline Procurements																																			
	9	2017	MDA	1	1	0																							0						
	9	2018	MDA	3	3	0																							0						
	9	2019	MDA	2	2	0																							0						
	9	2020	MDA	3	3	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					

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software	Item Number / Title [DODIC]: Aegis BMD Shipsets
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2024														Fiscal Year 2025														BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2023	BAL DUE AS OF 1 OCT	Calendar Year 2024														Calendar Year 2025														
							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					
Aegis BL 5.4.0 (BMD 4.1.2) Installs																																			
	1	2020	MDA	5	5	0																							0						
	1	2021	MDA	5	5	0																							0						
Aegis BL 5.4.0 (BMD 4.1.2) Procurement																																			
	2	2019	MDA	10	10	0																							0						
	3	2020	MDA	8	8	0																							0						
Aegis BL 5.4.1 (BMD 4.2) Hardware Procurement																																			
	4	2020	MDA	1	1	0																							0						
	4	2021	MDA	3	3	0																							0						
	4	2022	MDA	3	0	3																							0						
Aegis BL 5.4.1 (BMD 4.2) Refurbishments																																			
	5	2022	MDA	1	1	0																							0						
Aegis BL 9.C2 (BMD 5.1) BackFit Installs																																			
	6	2017	MDA	3	3	0																							0						
	6	2018	MDA	8	8	0																							0						
	6	2019	MDA	3	3	0																							0						
	6	2020	MDA	2	2	0																							0						
Aegis BL 9.C2 (BMD 5.1) BackFit Procurement																																			
	7	2017	MDA	6	6	0																							0						
Aegis BL 9.C2 (BMD 5.1) Inline Installs																																			
	8	2017	MDA	1	1	0																							0						
	8	2018	MDA	3	3	0																							0						
	8	2019	MDA	2	2	0																							0						
	8	2020	MDA	3	3	0																							0						
	8	2021	MDA	3	3	0																							0						
	8	2022	MDA	3	3	0																							0						
	8	2023	MDA	2	2	0																							0						
	8	2024	MDA	1	0	1																							0						
Aegis BL 9.C2 (BMD 5.1) Inline Procurements																																			
	9	2017	MDA	1	1	0																							0						
	9	2018	MDA	3	3	0																							0						
	9	2019	MDA	2	2	0																							0						
	9	2020	MDA	3	3	0																							0						

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Exhibit P-21, Production Schedule: PB 2024 Missile Defense Agency **Date:** March 2023

Appropriation / Budget Activity / Budget Sub Activity: 0300D / 01 / 17	P-1 Line Item Number / Title: MD90 / Aegis BMD Hardware and Software	Item Number / Title [DODIC]: Aegis BMD Shipsets
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2024	1-8-5 For 2024	MAX For 2024	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Lockheed Martin - Moorestown, N.J.	1	1	6	0	0	0	0	0	0	0	0	0
2	Lockheed Martin - Moorestown, N.J.	1	1	10	0	0	0	0	0	0	0	0	0
3	Lockheed Martin - Moorestown, N.J.	1	1	8	0	0	0	0	0	0	0	0	0
4	Lockheed Martin - Moorestown, N.J.	1	1	6	0	0	0	0	0	0	0	0	0
5	Lockheed Martin - Lockheed Martin, Moorestown, N.J.	1	1	1	0	0	0	0	0	0	0	0	0
6	Lockheed Martin - Moorestown, N.J.	1	1	8	0	0	0	0	0	0	0	0	0
7	Lockheed Martin - Moorestown, N.J.	1	1	11	0	0	0	0	0	0	0	0	0
8	Lockheed Martin - Moorestown, N.J.	1	1	4	0	0	0	0	0	0	0	0	0
9	Lockheed Martin - Moorestown, N.J.	1	1	4	0	0	0	0	0	0	0	0	0
10	Lockheed Martin - Moorestown, N.J.	1	1	1	0	0	0	0	0	0	0	0	0
11	Lockheed Martin - Moorestown, N.J.	1	1	5	0	0	0	0	0	0	0	0	0
12	Lockheed Martin - Moorestown, N.J.			12	0	0	0	0	0	0	0	0	0
13	Lockheed Martin - Moorestown, N.J.	1	1	4	0	0	0	0	0	0	0	0	0
14	Lockheed Martin - Moorestown, N.J.	1	1	6	0	0	0	0	0	0	0	0	0
15	Lockheed Martin - Moorestown, N.J.	1	1	5	0	0	0	0	0	0	0	0	0
16	Lockheed Martin - Moorestown, N.J.	1	1	14	0	0	0	0	0	0	0	0	0

"A" in the Delivery Schedule indicates the Contract Award Date.
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).